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# Analysis and Enhancement of the Legal Framework – The Need for Action in the Light of Current Developments of Antarctic Tourism



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## **Analysis and Enhancement of the Legal Framework – The Need for Action in the Light of Current Developments of Antarctic Tourism**

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## Abstract

The present study analyzes the legal framework of Antarctic tourism in the light of its factual development. The first part defines Antarctic tourism and identifies the objectives of the Antarctic Treaty system that are relevant for Antarctic tourism. The second part displays the factual development of Antarctic tourism in the last ten years. The third part spells out and analyzes the national and international norms that directly or indirectly apply to Antarctic tourism. These norms derive out of international law from various differing regimes – i.e. the Antarctic Treaty system, international environmental law and the law of the sea – but also from domestic law, implementing the international obligations arising under the Antarctic Treaty system. Hence, such domestic norms of a representative number of States are considered. A particular focus will be laid on the German norms applicable to Antarctic tourism. Furthermore, the study also examines the norms of the International Association of Antarctica Tour Operators (IAATO), whose bylaws and guidelines apply to its member-companies. This multidimensional approach, comprising international, domestic and private norms, enables a complete picture of the normative framework of Antarctic tourism. The study thereby identifies *in concreto* existing gaps and shortcomings. It is shown that, despite the abundant number of hard and soft law stipulations, as well as domestic norms, Antarctic tourism still lacks a normative framework that would be suitable to restrict its localities and the numbers of tourists. This is in conflict with the general object and purpose of the Environmental Protocol to the Antarctic Treaty to establish a comprehensive system of environmental protection within the entire Antarctic Treaty area. In the fourth part, recommendations are presented on how the legal framework of Antarctic tourism could be improved, so that Antarctic tourism can be effectively managed and regulated today and in the future.

## Kurzbeschreibung

Die vorliegende Studie analysiert die rechtlichen Rahmenbedingungen des Antarktistourismus im Lichte seiner faktischen Entwicklungen. Der erste Teil bestimmt den Begriff des Antarktistourismus und stellt die für den Antarktistourismus relevanten Vertragsziele des Antarktisvertragssystems dar. Der zweite Teil zeichnet die tatsächlichen Entwicklungen des Antarktistourismus der letzten zehn Jahre nach. Der dritte Teil legt die nationalen und völkerrechtlichen Normen dar, die direkt oder indirekt auf den Antarktistourismus anwendbar sind, und analysiert diese. Diese Normen entstammen unterschiedlichen völkerrechtlichen Regimen – wie dem Antarktisvertragssystem, dem Umweltvölkerrecht und dem Seevölkerrecht – und den nationalen Rechtsordnungen, welche die völkerrechtlichen Vorschriften des Antarktisvertragssystems implementieren. Daher werden nationale Normen einiger repräsentativer Vertragsstaaten betrachtet. Ein besonderer Fokus wird auf die in Deutschland geltenden nationalen Normen, die auf den Antarktistourismus anwendbar sind, gelegt. Zusätzlich werden die Normen der International Association of Antarctica Tour Operators (IAATO) analysiert, deren Satzung und Guidelines als Akte privater Rechtsetzung die Mitgliedsunternehmen binden. Durch die damit mögliche Untersuchung im Mehrebenensystem ergibt sich ein umfassendes Bild der normativen Rahmenbedingungen des Antarktistourismus. Die Studie identifiziert dabei konkret die vorhandenen Lücken und Defizite. Es kann gezeigt werden, dass es, trotz der großen Anzahl völkervertraglicher, gewohnheitsrechtlicher und internationaler Soft Law Normen, sowie der bestehenden nationalen Regelungen, bis heute an einem normativen Rahmen fehlt, der geeignet wäre, die Anzahl der Antarktistouristen und Orte des Antarktistourismus einzugrenzen. Dies steht im Widerspruch zum generellen Ziel und Zweck des Umweltschutzprotokolls zum Antarktisvertrag, einen umfassenden Umweltschutz im gesamten Antarktisgebiet zu etablieren. Im vierten Teil werden daher Möglichkeiten aufgezeigt, wie die Lücken geschlossen werden können und der Antarktistourismus heute und in Zukunft effektiv geregelt und gemanagt werden kann.

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## List of Abbreviations

AFDI	Annuaire Français de Droit International
AJIL	American Journal of International Law
ASMA	Antarctic Specially Managed Areas
ASOC	Antarctic and Southern Ocean Coalition
ASPA	Antarctic Specially Protected Areas
AT	Antarctic Treaty
ATCM	Antarctic Treaty Consultative Meeting
ATME	Antarctic Treaty Meeting of Experts
ATS	Antarctic Treaty system
AUG	Gesetz zur Ausführung des Umweltschutzprotokolls vom 4. Oktober 1991 zum Antarktis-Vertrag (Act Implementing the Environmental Protocol to the Antarctic Treaty)
Aust. YBIL	Australian Yearbook of International Law
AVR	Advanced Visit Report(s)
BGBL	Bundesgesetzblatt (Federal Law Gazette)
BT-Drs.	Bundestags-Drucksache
BVerfG	Bundesverfassungsgericht (Federal Constitutional Court)
BVerfGE	Entscheidungen des Bundesverfassungsgerichts (Decisions of the Federal Constitutional Court)
Cal. W. Int'l L J	California Western International Law Journal
Case W. Res. J. Int'l L	Case Western Reserve Journal of International Law
CCAMLR	Convention on the Conservation of Antarctic Marine Living Resources
CCAS	Convention on the Conservation of Antarctic Seals
CEE	Comprehensive Environmental Evaluation
CEP	Committee on Environmental Protection
CIOMS	Council for International Organizations of Medical Sciences
COMNAP	Council of Managers of National Antarctic Programs
Cornell Int'l L. J	Cornell International Law Journal
EcologyL.Q	Ecology Law Quarterly
Ed./eds.	Editor/editors
EIA	Environmental Impact Assessment
EIES	Electronic Information Exchange System
EJIL	European Journal of International Law
Emory Int'l L. Rev	Emory International Law Review

GeoInt'lEnvtl. L Rev	Georgetown International Environmental Law Review
GG	Grundgesetz für die Bundesrepublik Deutschland (Basic Law for the Federal Republic of Germany)
GYIL	German Yearbook of International Law
HStR	Handbuch des Staatsrechts der Bundesrepublik Deutschland
IAATO	International Association of Antarctica Tour Operators
ICG	Intersessional Contact Group
ICJ	International Court of Justice
ICLQ	International and Comparative Law Quarterly
IEE	Initial Environmental Evaluation
ILC	International Law Commission
ILM	International Legal Materials
IMO	International Maritime Organization
IP	Information Paper
ITLOS	International Tribunal for the Law of the Sea
J.Mar.L. & Com	Journal of Maritime Law and Commerce
MARPOL	International Convention for the Prevention of Pollution from Ships
Mich.J. Int'l L.	Michigan Journal of International Law
MPEPIL	Max Planck Encyclopedia of Public International Law
MPYUNL	Max Planck Yearbook of United Nations Law
MqJICEL	Macquarie Journal of International & Comparative Environmental Law
N.Z.Y.B. Int'l L.	New Zealand Yearbook of International Law
NJW	Neue Juristische Wochenschrift
NuR	Natur und Recht
NZ.J. Env'tl L	New Zealand Journal of Environmental Law
NZAHT	New Zealand Antarctic Heritage Trust
Ocean & Coastal L.J	Ocean & Coastal Law Journal
Para.	Paragraph
PPP	Public-Private Partnership
PVR	Post Visit Report(s)
RdC	Recueil des Cours Collected Courses of the Hague Academy of International Law
RECIEL	Review of European Community and International Environmental Law
S.Afr.Y.B.INT'l L	South African Yearbook of International Law
SATCM	Special Antarctic Treaty Consultative Meeting
SOLAS	International Convention for the Safety of Life at Sea

SP	Secretariat Paper
Tex.Int'l L.J	Texas International Law Journal
UBA	Umweltbundesamt (German Federal Environment Agency)
UKAHT	United Kingdom Antarctic Heritage Trust
UNCLOS	International Convention for the Prevention of Pollution From Ships
UNTS	United Nations Treaty Series
Va.J.Int'l L	Virginia Journal of International Law
VCLT	Vienna Convention on the Law of the Treaties
VwVfG	Verwaltungsverfahrensgesetz (Administrative Procedure Act)
WP	Working Paper
YIEL	Yearbook of International Environmental Law
ZaöRV	Zeitschrift für ausländisches öffentliches Recht und Völkerrecht (Heidelberg Journal of International Law)

## Executive Summary

This study analyzes tourism in Antarctica with regard to the accessible empirical data and the contemporary legal regulations. It proceeds in four stages. Part 1 lays out the terminology and identifies the essential objectives of the Antarctic Treaty system that are relevant to Antarctic tourism. On the basis of new data, the actual developments in Antarctic tourism during the last ten years are analyzed (part 2). Subsequently, the national and international norms that directly or indirectly apply to Antarctic tourism are spelled out and evaluated (part 3). These include norms and measures of (self-)regulation of Antarctic tourism by the International Association of Antarctica Tour Operators (IAATO). Thereby, not only are the existing regulations investigated but their gaps and shortcomings are also identified. In the fourth part, recommendations are presented on how the legal framework of Antarctic tourism could be improved so that Antarctic tourism can be effectively managed and regulated today and in the future. This seems necessary in order to guarantee the comprehensive protection of the Antarctic environment.

The introductory first part of the study initially analyzes Antarctic tourism against the background of the essential objectives of the Antarctic Treaty system (ATS) (1.1). These are the protection of the environment and the freedom of scientific research. The tension between these objectives and Antarctic tourism is shown: Antarctic tourism is – at least potentially – a threat to the unique Antarctic environment and the singular research conditions that exist there.

Furthermore, the first part of the study also identifies the concept and types of Antarctic tourism (1.2). First the notions ‘tourist’ and ‘visitor’ are defined. The term ‘tourist’ is differentiated from those individuals that are subject to special regulations of the ATS – scientists as well as their civilian and military support personnel and observers. In accordance with the general usage of the term, ‘tourist’ can reasonably be restricted further. It thereafter only encompasses those people who travel without another primary purpose (‘for pleasure’). Other individuals, if they are not active as scientific personnel or as observers, are visitors. Tourism as an activity in the sense of this study includes – first of all – all actions by tourists. Furthermore, tourist activities are all activities of visitors that are non-professional.

Lastly, the first part also differentiates between various types of Antarctic tourism: First, tourist activities are distinguished according to their local focus. Here seaborne tourism – with expedition cruises, seaborne cruise-only tourism, and yacht tourism – can be distinguished from airborne tourism. The latter encompasses mere over-flights and day trips with stopovers on land. The third type of tourism is land-based tourism. It is important to distinguish land-based tourism from expedition cruises using a justified temporal threshold – i.e. 24 hours on land. The establishment and use of new, permanent tourism infrastructure represents a special case; there is currently no consensus among the Consultative States on whether such establishment and use is prohibited by the Antarctic Treaty (AT) and the Protocol on Environmental Protection to the Antarctic Treaty (Environmental Protocol).

With respect to the typology of tourist activities described, an ever stronger deviation from the hitherto standard form of Antarctic tourism – expedition cruises – can be shown. The activities on land go well beyond a mere stay in the vicinity of the landing-site. Additionally, other forms – *e.g.* adventure and extreme-sports tourism, mass events, and charity tourism – are increasingly occurring. Moreover, the actors of tourist activities diversify and, besides participants of commercially organized tourist voyages to Antarctica, today encompass *inter alia* individual tourists and media representatives.

After the definitions and categorizations of the first part, the second part of the study analyzes the factual development of Antarctic tourism (2). This analysis is especially based on accessible empirical data collected by the study itself (2.1). The objective was to gain an overview of the development of Antarctic tourism in the last ten years that is as comprehensive as possible. A focal point of the collection was the determination of the tourist activities of third States and of the tourism forms that do not take place within the framework of IAATO. In particular, the following data and information sources were used:

The Electronic Information Exchange System (EIES) of the Antarctic Treaty Secretariat; data from operators at the origins and destinations of Antarctic voyages; other generally accessible sources, for instance the ATCM-documents, websites, and IAATO-data. Ultimately, a complete overview of all tourist activities based on non-IAATO sources did not succeed, since *inter alia* multiple inquiries to the notification and permit authorities remained – a few exceptions notwithstanding – unanswered and the EIES is incomplete. Nevertheless, a comprehensive overview of yachts in the Antarctic Treaty area and a complete overview of the known tourist companies have been compiled.

On the basis of the collected data and accessible information, the following changes in Antarctic tourism can be demonstrated (2.2):

Indeed the number of Antarctic tourists has not yet reached the all-time peak of more than 46,000 tourists in the 2007/2008 season (in the 2013/2014 season: ca. 37,400). However the diversification of tourist activities in the Antarctic Treaty area is further increasing. Ten activities, which were not (sufficiently) known up until now, were able to be identified in this study, i.e. concerts, fashion shows, cricket, soccer, tricycling, stand up paddling, management workshops, geocaching, Google Street View, and drone flights.

In addition, accidents and cases of non-compliance by tourists can be shown, even though neither the number of tourist accidents nor cases of non-compliance seem to have increased in the last years.

With respect to tourism operators that offer Antarctic tourism, the following results can be summarized: All of the currently known tourism operators are located in a State party to the Antarctic Treaty and the Protocol on Environmental Protection. Nevertheless, a third of the vessels employed by these operators sails under the flag of a non-party. Furthermore, IAATO's claim to incorporate the majority of Antarctic tourism cannot be maintained for all tourism segments. It is not valid with regard to over-flights, one-time expeditions, or especially yacht tourism: Of the over 200 known yachts that sailed in the Antarctic Treaty area between 1997 and 2013, only 16% were IAATO-members at the time of their Antarctic voyage.

For the future of Antarctic tourism, the following outlook can be made on the basis of the accessible data and information spelled out in the second part of the study: With respect to the quantity of Antarctic tourism, the fact that emerging markets – like in the Middle East, Asia, or Russia – are barely tapped up until now can indicate a further increase of tourist activities in the Antarctic Treaty area in the near future. With respect to the kind of tourism, it is to be expected that the diversification and individualization of tourist activities will continue further and intensify and thereby overall the dangers for the Antarctic environment will further increase. However, this is only true if Antarctic tourism is not directly or indirectly regulated or restricted.

The third part of the study analyzes the legal framework of Antarctic tourism. First, the primary and secondary rules of international law under the Antarctic Treaty system are spelled out and evaluated (3.1). This includes the treaty law of the Antarctic system, i.e. the Antarctic Treaty (AT), the Convention for the Conservation of Antarctic Seals (CCAS), the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR), and the Protocol on Environmental Protection to the Antarctic Treaty. The Antarctic Treaty does not contain any explicit regulations for Antarctic tourism and Antarctic tourism does not *per se* violate the requirement of the freedom of scientific investigation (Art. II AT) or of the use of the Antarctic Treaty area for peaceful purposes (Art. I AT). Besides, it is decisive for tourist activities that – firstly – the notification obligations of Art. VII (5) (a) AT also extend to tourist activities; secondly, tourist activities are not encompassed by Art. VIII (1) AT which stipulates that scientific personnel and observers fall under the exclusive jurisdiction of their States of origin. The CCAS and the CCAMLR do not contain any requirements of importance for Antarctic tourism.

However, important requirements for Antarctic tourism are enshrined in the Environmental Protocol: the 'general part' of the Environmental Protocol – consisting of the text of the Protocol itself as well as

its Annex on Environmental Impact Assessment (EIA) – applies to all activities in the Antarctic treaty area, encompassing tourist activities which are *expressis verbis* mentioned (cf. for instance Art. 3 (4), Art. 8 (2) Environmental Protocol). It follows from Art. 3 (3) Environmental Protocol that scientific research is to be given priority over other activities including tourism. Antarctic tourism is therefore a legitimate, but not privileged, in other words a ‘neutral’ activity according to the Environmental Protocol, as are all other governmental and non-governmental activities apart from scientific ones.

The environmental principles named in Art. 3 Environmental Protocol as well as the EIA contained in Art. 8 Environmental Protocol and its Annex I also apply to tourist activities. These rules, however, do not establish a regulative framework that takes into account the specific circumstances of Antarctic tourism: The environmental principles stipulated by Art. 3 Environmental Protocol are, in the view of most scholars and States, too general to entail concrete regulative requirements with respect to specific tourist activities. In contrast to the prohibition of mineral resource activities contained in Art. 7 Environmental Protocol, the inherent contradiction between the economic use of Antarctica on the one side and the comprehensive protection of the environment on the other is not clearly resolved with regard to Antarctic tourism.

Particularly the EIA is not framed to qualitatively or quantitatively restrict Antarctic tourism effectively. The main reason for this is that individual tourist activities – when assessed separately – mostly will have less than a minor or transitory environmental impact and only cumulatively impair the Antarctic environment in interaction with further tourist or other activities. The EIA cannot sufficiently take such cumulative environmental impacts into account. Furthermore, neither the EIA nor Art. 3(4)(a) Environmental Protocol require a formal permit of all tourist activities in Antarctica by a State party. It merely has to ensure that the planned activity undergoes an EIA, which fulfills the formal requirements of the Environmental Protocol.

The ‘special part’ of the Environmental Protocol also contains regulations for Antarctic tourism. The area management laid down by Annex V of the Environmental Protocol contains specific rules for tourist activities. The great majority of Antarctic Specially Protected Areas (ASPAS; Art. 3 Annex V Environmental Protocol) have management plans (Art. 5 Annex V Environmental Protocol), which grant access to the respective area only for scientific purposes or for the management of the area and thus bar access to such areas for tourist purposes. In contrast, the management plans of the Antarctic Specially Managed Areas (ASMAS; Art. 4 Annex V Environmental Protocol) do not bar tourist activities.

The provisions on waste disposal in Annex III Environmental Protocol also cover tourist activities. The same is true for the conservation of Antarctic flora and fauna regulated in Annex II. With respect to Annex II, the prohibition of the introduction of non-native species (Art. 4(1) Annex II Environmental Protocol) is particularly relevant for tourism. Additionally, Annex VI on the liability arising from environmental emergencies, which has not yet entered into force, contains provisions that affect Antarctic tourism in environmental emergencies.

The rules on tourism concluded by the Consultative States in the framework of the ATCM, i.e. the ATCM instruments on tourism, also belong to the rules of international law within the Antarctic Treaty system. These rules comprise measures, resolutions, and decisions: Although there already exist two measures concerning Antarctic tourism (one on insurance and contingency planning (ATCM XXVII (2004), Measure 4) and one on the landing of persons from passenger vessels (ATCM XXXII (2009), Measure 15)), both, however, have not yet entered into force. The decisions on Antarctic tourism only concern the regulation of the information exchange. In addition, a multitude of soft law resolutions on Antarctic tourism exist: These contain either rules on particular forms of tourism, as for instance on the operation of aircrafts (ATCM XXVII (2004), Resolution 2), or general rules on all forms of tourism, e.g. the general guidelines for visitors to the Antarctic (ATCM XXXIV (2011), Resolution 3). In addition, site-guidelines are adopted in

the form of resolutions. These guidelines contain non-binding rules specifically for areas that are highly frequented by tourists.

It is important to note that the underlying principles of the Antarctic Treaty system require an effective regulation of Antarctic tourism by the States parties for two reasons: Firstly, States parties administer Antarctica not to serve their own interests, but act as trustees of the international community in the Antarctic Treaty area. Secondly, the comprehensive level of environmental protection guaranteed by the Environmental Protocol obliges States parties to prevent future environmental damage by adopting a regulatory framework that meets the objective of comprehensive environmental protection.

One decisive gap of the rules of the Antarctic Treaty system is that they are not applicable to third States. Third States are States that are not bound to the Antarctic Treaty or to another treaty of the Antarctic Treaty system, especially the Environmental Protocol. A so-called ‘objective regime’ that binds third States to the regulations of the Environmental Protocol or the Antarctic Treaty cannot be assumed. It also cannot be argued that these norms form part of customary international law.

The rules of the law of the sea contained in the United Nations Convention on the Law of the Sea (UNCLOS), the International Convention for the Prevention of Pollution From Ships (MARPOL), and the International Convention for the Safety of Life at Sea (SOLAS) are of varying importance for Antarctic tourism (3.2): The abovementioned norms are, as far as they are relevant for Antarctic tourism, applicable to the Antarctic Treaty area. UNCLOS contains general obligations on maritime environmental protection (Art. 192 et seq. UNCLOS), however no specific regulations for Antarctic tourism can be found within this treaty. The situation is different with respect to MARPOL and SOLAS, especially after the entry into force of the Polar Code. These treaties of the International Maritime Organization (IMO) are also enforceable beyond the traditional flag state principle on the basis of the port state control.

Norms of general international environmental law, however, do not increase the level of environmental protection in Antarctica in comparison to the Environmental Protocol (3.3). Nevertheless, three principles of international environmental law concerning the protection of the Antarctic environment from environmental hazards caused by tourist activities are especially important for *all* States: These are, firstly, the precautionary principle, which obliges States to already take measures against future, irreversible environmental damage when there is merely a risk of such damage. Secondly, the principle of prevention obliges States not to cause environmental harm. And thirdly, the principle of sustainable development requires States to use natural resources as to maintain them for a long period of time.

However, regional customary law that protects the polar regions cannot be established (3.4) even though restrictive national regimes for environmental protection have developed on the islands surrounding the Antarctic.

Additionally, it is shown that IAATO, as association of Antarctica tourism operators, is filling the partial regulatory vacuum left behind by the Consultative States with its regulation of Antarctic tourism through private law (3.5). Ultimately, this private legislation by a member-driven association, consisting of profit-oriented companies cannot replace rules of international law, aimed at the protection of common interests of the international community. In addition, the national implementation procedures of the EIA are analyzed (3.6). The study examines the implementation of the EIA in Argentina, Australia, Chile, France, Japan, New Zealand, South Africa, the United Kingdom, the United States, and Germany. As a result, notable differences between the national procedures can be identified: Some States parties, *e.g.* the USA and Argentina, did not implement the EIA by introducing a national *authorization* procedure. Moreover, it is remarkable that at least one State, *i.e.* South Africa, has still not implemented the EIA into national law up until today. Relevant differences are given with respect to exceptions to the applicability of national procedures for cases in which the planned activity has beforehand been authorized by another State party. While most States already preclude the applicability of their own procedure in such cases, other States only allow for the preclusion of applicability if there are comparable procedures – as Japan – or



leave the preclusion of applicability in the discretion of the national authority, like New Zealand. Although a stronger standardization of the domestic procedures with respect to the uniform regulation of Antarctic tourism would be desirable, States parties have not yet taken steps to reach this goal. Until today it remains by and large unsettled when an activity has more than minor or transitory environmental impacts.

In order to assess the possibilities of a restricting Antarctic tourism in Germany on the basis of the German Act Implementing the Environmental Protocol to the Antarctic Treaty (AUG) (3.7), this study explores the interplay of norms contained in this statute with the relevant rules of international law and the diverging procedures in different States. For the interpretation of the AUG, it must be kept in mind that this statute is generally to be interpreted in the light of the Environmental Protocol. The exemption from authorization pursuant to § 3(2) No. 1 AUG also encompasses foreign procedures for the implementation of the Environmental Protocol that do not contain an authorization or permit, but only a notification.

According to the German AUG the permit to conduct a tourist activity in the Antarctic Treaty area can be denied in two cases: Firstly, if the German Federal Environmental Agency (UBA) uses its margin of discretion as to deny an authorization. This, however, is only possible in cases of more than a minor or transitory impact (§ 12(2) AUG). Secondly, there is a margin of discretion of the Federal Environmental Agency with regard to the question when the threshold of a minor or transitory impact is crossed. This risk assessment is only subject to limited judicial review. However, ultimately the agency is restrained by its previous assessments and practice, which can only be deviated on justifiable grounds.

Furthermore, the German AUG also allows to restrict the modalities of Antarctic tourism: The possibility to lay down certain requirements and conditions exists. To determine the time limit of an activity is necessary according to the AUG. It can be concluded that a resolute condition seems to be an effective instrument for a limitation of Antarctic tourism, since only in this way it can be guaranteed that the violation of the condition issued with the authorization also automatically entails an administrative offence.

As a result of the shortcomings of and gaps in the legal regulations described above, the following is concluded from the examination of the *lex lata* (3.8): Antarctic tourism is lacking a normative regulatory framework that concretely and effectively resolves the contradiction between the objectives of the Antarctic Treaty and the Environmental Protocol – environmental protection, freedom of scientific research – on the one hand and the private and economic use of Antarctica by tourism operators and tourists on the other hand. This result clearly contradicts the general objective of the Environmental Protocol, namely to establish a comprehensive system to protect the Antarctic environment.

The fourth part of the study thus recommends improvements for a further development of the legal framework for the regulation and management of Antarctic tourism (4). The basis for these recommendations is the discussion about Antarctic tourism among the Consultative States since the 1960s that, however, has not yet led to tangible results (4.1).

For an improved tourism management three proposals are proposed and evaluated (4.2):

First, the possibility to upgrade and further integrate IAATO into the ATCM-system; the management of Antarctic tourism through IAATO – *e.g.* the management of landings – could be integrated into the ATCM-framework. However, the fact that, due to its legal basis, IAATO necessarily must remain focused on the interests of its members – commercially operating tourism companies – is a drawback of this proposal.

Second, the management of tourism by the Consultative States could be improved: A kind of ‘upgrade’ of the Secretariat would enable an improved collection of data. The EIES could be supplemented and improved by further elements that would allow the Secretariat itself to directly collect data from tourism

operators. Furthermore, a better monitoring of tourist activities could be achieved by delegating this task to the observers. The latter can already be achieved on the current legal basis (Art. VII(1) AT). The additional tasks of the Secretariat could be financed by the raising of fees for tourist activities.

Third, an improved management of tourism in Antarctica could be achieved through the establishment of a new Public-Private Partnership (PPP) that would encompass the tourism industry and the States parties as members and thereby would unite the expertise of all the relevant actors.

This study argues for initially achieving an improved tourism management through the States Parties to the Antarctic Treaty and the ATCM-Secretariat (proposal 2). However, the ability to realize this proposal is unclear since several Consultative States do not seem to support a kind of upgrade of the Secretariat. As a second option, the introduction of a PPP should be considered if proposal 1 fails.

Additionally, this study recommends to lay down effective regulations for tourism (4.3). The improvement of the EIA is essential in this regard. In order to standardize the diverging national procedures, it is necessary to stipulate that an authorization by a competent national authority is a necessary condition for carrying out tourist activities within the Antarctic Treaty area. Further, the EIA should be concretized with respect to tourist activities: The States parties should agree on the assumption that when permanent or semi-permanent infrastructure is employed for tourism these activities surpass the threshold of more than a minor or transitory environmental impact. Lastly, an improved assessment of cumulative environmental impacts is needed: The environmental impacts of an individual activity should be assessed against the background of other activities that are taking place or are planned.

In order to achieve a limitation of Antarctic tourism in the future the following is proposed:

This study calls for a general prohibition of tourist activities with more than minor or transitory environmental impacts as well as of tourist activities that *per se* cannot be conducted in accordance with the law of the Antarctic Treaty system – including ATCM-instruments.

Restrictions are proposed with respect to the kind and location of tourist activities as well as the number of Antarctic tourists. In order to prevent non-compliance with norms applicable within the Antarctic Treaty area, the introduction of preventive measures as well as penal sanctions are examined.

Subsequently, the study illustrates how the proposals for an improved tourism management and tourism regulation advanced here can be formally implemented (4.4). The modification of the Environmental Protocol, if necessary also the elaboration of a new ‘tourism-annex’ to the Environmental Protocol that settles all questions concerning Antarctic tourism, is recommended. However, the prospects of success of such a modification or a new annex are – at least in the near future – rather slim. Nevertheless, it is possible to regulate certain questions of Antarctic tourism by other ATCM-rules: Non-binding resolutions can be used here as precursors for binding rules. Further, such resolutions are accorded an authoritative effect for treaty interpretation if they reflect a consensus of the States parties with respect to the interpretation of broad legal terms in the Environmental Protocol. Additionally, the data-collection could be further developed by the States parties through measures. A decision allows the Consultative States to authoritatively settle questions on Antarctic tourism for all States Parties to the Antarctic Treaty; in this way, States Parties to the Antarctic Treaty, which have not acceded to the Environmental Protocol, are also encompassed. Considering the lacking consensus among the Consultative States in relation to a limitation of Antarctic tourism, the adoption of non-binding codes of conduct could also be a step forward.

Lastly, the study addresses the possible improvement of the legal situation in Germany (4.5). In order to better regulate Antarctic tourism, the following is recommended as an amendment to the German AUG:

The applicability of the AUG should be extended to all activities, for which a duty to notify pursuant to Art. VII(5)(a) AT exists, as well as to all German nationals and vessels. A duty for all German nationals to register tourist activities should be introduced that allows the competent national authority to determine whether a foreign authorization has been issued and by which State. Foreign authorizations for tourist

activities should not be accepted if they are not equivalent to the German AUG. A criminal liability for tourist activities in Antarctica undertaken without authorization should be introduced.

These possibilities could be implemented by acts of parliament. Constitutional concerns do not exist with respect to these proposals, which are limited to tourist activities and are not applicable to research activities.

## Zusammenfassung

Das vorliegende Gutachten untersucht in vier Teilen faktisch und rechtlich den Tourismus in der Antarktis. Auf der Grundlage neuer Daten werden die tatsächlichen Entwicklungen des Antarktistourismus in den letzten zehn Jahren analysiert (Teil 2). Rechtlich werden die völkerrechtlichen und nationalrechtlichen Normen, die den Antarktistourismus unmittelbar oder mittelbar betreffen, dargelegt und bewertet (Teil 3). Dies gilt auch für Normen und Maßnahmen der (Selbst-)Regulierung des antarktischen Tourismus durch den Verband der antarktischen Tourismusindustrie (International Association of Antarctica Tour Operators, IAATO). Hierbei werden nicht nur die bestehenden Regelungen untersucht, sondern auch deren Lücken und Mängel aufgezeigt. Im vierten Teil wird dargestellt, wie die rechtlichen Rahmenbedingungen des Antarktistourismus so verbessert werden können, dass der antarktische Tourismus heute und in Zukunft effektiv gemanagt und reguliert werden kann, um den Schutz der antarktischen Umwelt umfassend zu gewährleisten.

Der einleitende erste Teil des Gutachtens analysiert zunächst den Antarktistourismus vor dem Hintergrund der entscheidenden Ziele des Antarktisvertragssystems (1.1). Dies sind der Schutz der Umwelt und die Freiheit der Forschung. Es wird gezeigt, dass zwischen diesen Zielen und dem Antarktistourismus ein Spannungsverhältnis besteht: Der Antarktistourismus ist – zumindest potentiell – eine Gefahr für die einzigartige antarktische Umwelt und die dort bestehenden besonderen Forschungsbedingungen.

Grundlegend werden in dem ersten Teil der Arbeit auch der Begriff und die Arten des Antarktistourismus bestimmt (1.2). Hierbei werden zunächst die Personengruppen der Touristen und Besucher definiert. Der Begriff des Touristen wird zunächst von den im Antarktisvertrag besonderen Regelungen unterworfenen Personengruppen – Wissenschaftler sowie deren ziviles und militärisches Unterstützungspersonal und Beobachter – abgegrenzt. Er lässt sich in Anlehnung an den allgemeinen Sprachgebrauch sinnvoll noch stärker eingrenzen und umfasst danach nur Personen, die ohne weiteren Primärzweck („aus Vergnügen“) reisen. Andere Personen sind, soweit diese nicht als Forscher oder Beobachter tätig sind, Besucher. Tourismus als Aktivität im Sinne des Gutachtens beinhaltet zunächst sämtliche Aktivitäten von Touristen. Touristische Tätigkeiten sind zudem sämtliche Aktivitäten von Besuchern, die nicht beruflicher Art sind.

In diesem Teil wird auch zwischen verschiedenen Arten des Antarktistourismus differenziert: Zunächst werden touristische Tätigkeiten anhand ihres örtlichen Schwerpunkts unterschieden. Hierbei lässt sich der schiffsgestützte Tourismus – mit Expeditionskreuzfahrten, reinen Kreuzfahrten und Yachttourismus – von dem fluggestützten Tourismus unterscheiden. Letzterer umfasst bloße Überflüge über die Antarktis und Tagesausflüge mit Zwischenstopps an Land. Die dritte Art des Tourismus ist der landbasierte Tourismus. Hier ist es entscheidend, mit einer gerechtfertigten zeitlichen Grenze, vorliegend 24-Stunden an Land, eine plausible Abgrenzung zu den Expeditionskreuzfahrten vorzunehmen. Einen Sonderfall stellt die Errichtung und Nutzung neuer permanenter Tourismusinfrastruktur dar, über deren Verbot nach dem Antarktisvertrag und Umweltschutzprotokoll gegenwärtig noch keine Einigkeit unter den Konsultivstaaten besteht.

Bei der ebenfalls dargestellten Typologie touristischer Aktivitäten zeigt sich, dass immer stärker von der bisherigen Regelform des Antarktistourismus, den Expeditionskreuzfahrten, abgewichen wird. Das Spektrum angebotener Aktivitäten an Land geht mittlerweile weit über reine Aufenthalte an den Anlandestellen hinaus. Zusätzlich finden vermehrt auch andere Formen, wie Abenteuer- und Extremsporttourismus, Massenevents und Charity-Tourismus, statt. Zudem sind die Akteure touristischer Aktivitäten unterschiedlich und umfassen heute neben Teilnehmern, die an kommerziell organisierten touristischen Reisen in die Antarktis teilnehmen, u.a. Individualtouristen und Medienvertreter.

Nach den einleitenden Begriffsbestimmungen und Kategorisierungen des ersten Teils analysiert der zweite Teil der Untersuchung die faktische Entwicklung des Antarktistourismus (2). Dieser Analyse liegen

insbesondere Daten aus eigenen Erhebungen zugrunde (2.1). Ziel ist es, einen möglichst umfassenden Überblick über die Entwicklung des Antarktistourismus in den letzten zehn Jahren zu gewinnen. Ein Schwerpunkt der Erhebung bestand in der Ermittlung der touristischen Aktivitäten von Drittstaaten und von den Tourismusformen, die nicht im Rahmen der IAATO stattfinden. Im Einzelnen wurden folgende Daten- und Informationsquellen ausgewertet: Das Electronic Information Exchange System (EIES) des Antarktisvertragssekretariats; Daten von Betreibern an Ausgangs- und Zielpunkten von Antarktisreisen; sonstige allgemein zugängliche Quellen, wie etwa Antarctic Treaty Consultative Meeting (ATCM)-Dokumente, Internetseiten und IAATO-Daten. Im Ergebnis gelang eine Gesamtübersicht sämtlicher touristischer Aktivitäten aufgrund von IAATO-fremden Quellen allerdings nicht, da u.a. mehrfache Anfragen an die Notifikations- und Genehmigungsbehörden bis auf wenige Ausnahmen unbeantwortet blieben und das EIES lückenhaft ist. Dennoch konnte eine umfassende Übersicht der Yachten im Antarktisgebiet und eine Gesamtübersicht der vorliegend bekannten Tourismusunternehmen erstellt werden.

Auf Grundlage der erhobenen Daten und zugänglichen Informationen lassen sich folgende Veränderungen im Antarktistourismus nachweisen (2.2):

Zwar hat die Anzahl der antarktischen Touristen bisher nicht den Höchststand der Saison 2007/2008 mit mehr als 46.000 Touristen erreicht (in der Saison 2013/2014: ca. 37.400). Allerdings nimmt die Diversifizierung touristischer Tätigkeiten im Antarktisgebiet weiter zu. Vorliegend konnten zehn Aktivitäten identifiziert werden, die bisher nicht (hinreichend) bekannt waren. Dies sind Konzerte, Modeschauen, Cricket, Fußball, Tricycle, Stand Up Paddling, Management Workshops, Geocaching, Google Street View und Drohnenflüge.

Zudem konnten Unfälle und Regelverstöße durch Touristen nachgewiesen werden, auch wenn in den letzten Jahren weder die Zahl touristischer Unfälle noch die Zahl von Regelverstößen angestiegen zu sein scheint.

Bezüglich der Unternehmen, die Antarktistourismus anbieten, lassen sich folgende Ergebnisse festhalten: Sämtliche der vorliegend bekannten Tourismusunternehmen haben ihren Sitz in Vertragsstaaten des Antarktisvertrages und des Umweltschutzprotokolls. Dennoch fährt ein Drittel der von diesen Unternehmen genutzten Schiffe unter der Flagge eines Drittstaates. Ferner kann der Hauptvertretungsanspruch der IAATO für den Antarktistourismus nicht für alle Bereiche aufrechterhalten werden. Dies gilt für Überflüge, einmalige Expeditionen und insbesondere beim Yachttourismus: Von den über 200 bekannten Yachten, die 1997-2013 im Antarktisgebiet fuhren, waren zum Zeitpunkt der Antarktisreise nur 16 % IAATO Mitglieder.

Für die Zukunft des Antarktistourismus lässt sich folgende Prognose auf der Grundlage der Daten und Informationen des zweiten Teils der Untersuchung zusammenfassen: Bezüglich der Quantität des Antarktistourismus kann die Tatsache, dass neue zahlungskräftige Märkte wie im Mittleren Osten, Asien oder Russland bisher kaum erschlossen sind, auf einen weiteren Anstieg von Touristen im Antarktisgebiet hindeuten. Bezüglich der Art und Weise des Tourismus ist zu erwarten, dass sich die Diversifizierung und Individualisierung touristischer Aktivitäten weiter fortsetzt und verstärkt und damit insgesamt die Gefahren für die antarktische Umwelt weiter zunehmen. Dies gilt jedoch nur, wenn Antarktistourismus nicht stärker unmittelbar oder mittelbar reguliert oder begrenzt wird.

Der dritte Teil untersucht die rechtlichen Rahmenbedingungen des Antarktistourismus. Zunächst werden die primären und sekundären völkerrechtlichen Regeln des Antarktisvertragssystems dargelegt und bewertet (3.1). Dies umfasst insbesondere das Vertragsrecht des Antarktissystems, d.h. den Antarktisvertrag (AntV), das Übereinkommen zur Erhaltung der antarktischen Robben, das Übereinkommen über die Erhaltung der lebenden Meeresschätze in der Antarktis und das Umweltschutzprotokoll zum Antarktisvertrag (USP). Insgesamt ist hierzu festzustellen, dass der Antarktisvertrag keine expliziten Regelungen zum Antarktistourismus enthält und der Antarktistourismus nicht per se gegen das Gebot der Freiheit der wissenschaftlichen Forschung (Art. II AntV) oder das Gebot der friedlichen Nutzung des Antarktisge-

bietes (Art. I AntV) verstößt. Entscheidend für touristische Aktivitäten ist zudem, dass sich – erstens – die Notifikationspflichten des Art. VII Abs. 5 lit. a AntV auch auf touristische Tätigkeiten erstrecken; zweitens werden touristische Tätigkeiten nicht von der für wissenschaftliches Personal und Beobachter anwendbaren Jurisdiktionsklausel des Art. VIII Abs. 1 AntV umfasst und fallen somit nicht unter die exklusive Jurisdiktion der Herkunftsstaaten. Das Übereinkommen zur Erhaltung der antarktischen Robben und das Übereinkommen über die Erhaltung der lebenden Meeresschätze in der Antarktis enthalten keine bedeutsamen Vorgaben zum Antarktistourismus.

Wichtige Vorgaben für den antarktischen Tourismus enthält jedoch das Umweltschutzprotokoll zum Antarktisvertrag: Der für sämtliche Aktivitäten in der Antarktis anwendbare „Allgemeine Teil“ des Umweltschutzprotokolls – das Umweltschutzprotokoll selbst und dessen Anlage I zur Umweltverträglichkeitsprüfung – ist ausdrücklich auf touristische Tätigkeiten anwendbar (vgl. etwa Art. 3 Abs. 4 USP; Art. 8 Abs. 2 USP). Aus Art. 3 Abs. 3 USP folgt, dass der wissenschaftlichen Forschung Vorrang gegenüber sonstigen Aktivitäten wie dem Tourismus einzuräumen ist. Der Antarktistourismus ist somit eine legitime, jedoch nicht privilegierte, „neutrale“ Tätigkeit nach dem Umweltschutzprotokoll. Dies gilt auch für sämtliche andere staatliche und nicht-staatliche Tätigkeiten.

Die in Art. 3 USP genannten Umweltschutzgrundsätze gelten hierbei auch für touristische Tätigkeiten. Dazu gehört u.a. das durch Art. 8 USP i.V.m. Anlage I USP vorgesehene Environmental Impact Assessment (EIA). Diese Vorschriften schaffen allerdings kein auf die Eigenheiten des Antarktistourismus ausgerichtetes Regelungsregime: Die in Art. 3 USP genannten Umweltschutzgrundsätze sind nach herrschender Ansicht zu allgemein gefasst, um hieraus konkrete Regelungsaussagen im Hinblick auf einzelne touristische Tätigkeiten herauszulesen. Im Gegensatz zum Verbot von Bergbauaktivitäten in Art. 7 USP wird beim Tourismus der Widerspruch zwischen der wirtschaftlichen Nutzung der Antarktis einerseits und dem umfassenden Schutz der Umwelt andererseits nicht eindeutig aufgelöst.

Insbesondere das EIA vermag den Antarktistourismus weder qualitativ noch quantitativ wirksam einzugrenzen. Hauptgrund hierfür ist, dass die einzelnen touristischen Aktivitäten für sich betrachtet in der Regel weniger als geringfügige oder vorübergehende Umweltauswirkung haben und nur in ihrem Zusammenspiel mit anderen touristischen oder sonstigen Tätigkeiten kumulativ die antarktische Umwelt beeinträchtigen. Das EIA kann solche kumulativen Umweltauswirkungen im Hinblick auf touristische Aktivitäten nicht ausreichend berücksichtigen. Ferner folgt aus den Anforderungen für ein EIA und aus Art. 3 Abs. 4 lit. a USP kein Genehmigungsvorbehalt für sämtliche touristische Aktivitäten im Antarktisgebiet. Der Vertragsstaat hat lediglich sicherzustellen, dass die geplante Aktivität einer EIA unterzogen wurde, die den formellen Anforderungen des Umweltschutzprotokolls entspricht.

Auch der „Besondere Teil“ des Umweltschutzprotokolls enthält Regelungen zum Antarktistourismus. Die besonderen Schutzgebiete der Anlage V des Umweltschutzprotokolls enthalten besondere Regeln für touristische Aktivitäten. Die besonders geschützten Gebiete (ASPAs; Art. 3 Anlage V USP) enthalten in ihrer großen Mehrzahl Verwaltungspläne (Art. 5 Anlage V USP), die den Zugang nur für wissenschaftliche Zwecke oder für das Gebietsmanagement vorsehen und schließen demnach den Zugang solcher Gebiete für touristische Zwecke aus. In den besonders verwalteten Gebieten (ASMAs; Art. 4 Anlage V USP) schließen die Verwaltungspläne hingegen touristische Tätigkeiten gerade nicht aus.

Auch die Vorschriften zur Abfallentsorgung in Anlage III USP sind auf touristische Tätigkeiten anwendbar. Dies gilt zudem für den durch Anlage II geregelten Schutz der Flora und Fauna. Für den Tourismus ist hierbei insbesondere das Verbot der Einbringung nicht-heimischer Arten relevant (Art. 4 Abs. 1 Anlage II USP). Auch die noch nicht in Kraft getretene Anlage VI über die Haftung bei umweltgefährdenden Notfällen enthält Bestimmungen, die den Antarktistourismus bei Umweltnotfällen betreffen.

Zu den völkerrechtlichen Regeln des Antarktisvertragssystems gehört auch die ATCM-Sekundärrechtssetzung. Diese besteht aus Maßnahmen, Resolutionen und Entscheidungen: Zwar gibt es bisher zwei Maßnahmen der Antarktiskonsultativstaaten zum Antarktistourismus (eine zur Versicherung

und Notfallplanung (ATCM XXVII (2004), Measure 4) und eine zum Landungsmanagement (ATCM XXXII (2009), Measure 15)), beide sind jedoch noch nicht in Kraft getreten. Die Entscheidungen zum Antarktistourismus betreffen nur den Informationsaustausch. Es gibt zudem eine Vielzahl von Resolutionen zum Antarktistourismus: Diese enthalten entweder Regelungen für besondere Tourismusformen, wie etwa den Flugverkehr (ATCM XXVII (2004), Resolution 2) oder allgemeine Regelungen für sämtliche Tourismusformen, wie etwa die generellen Guidelines für Antarktisbesucher (ATCM XXXIV (2011), Resolution 3). Zudem werden Site-Guidelines in Resolutionsform beschlossen; hierdurch werden nicht verbindliche Sonderregelungen für besonders stark von Touristen frequentierte Gebiete vereinbart.

Entscheidend ist in der Gesamtschau der völkerrechtlichen Normen, dass die normativen Grundlagen des Antarktisvertragssystems aus zwei Gründen eine effektive Regelung des Antarktistourismus durch die Vertragsstaaten erfordern: Erstens verwalten die Vertragsstaaten die Antarktis nicht zum Selbstzweck, sondern fungieren als Treuhänder der internationalen Staatengemeinschaft im Antarktisgebiet. Zweitens beinhaltet der umfassende Umweltschutzgedanke des Umweltschutzprotokolls eine Verpflichtung, zukünftige Umweltschäden durch solche regulatorische Maßnahmen zu vermeiden, die dem Ziel des umfassenden Umweltschutzes durch das Umweltschutzprotokoll genügen.

Eine entscheidende Lücke besitzen die völkerrechtlichen Regelungen, da diese nicht auf Drittstaaten (Nichtvertragsparteien) anwendbar sind. Drittstaaten sind solche Staaten, die nicht an den Antarktisvertrag oder einen anderen Vertrag des Antarktisvertragssystems, insbesondere das Umweltschutzprotokoll, gebunden sind. Ein sog. „objektives Regime“, das Drittstaaten an Regelungen des Umweltschutzprotokolls oder des Antarktisvertrages bindet, kann nicht angenommen werden. Das gilt auch für eine völkergewohnheitsrechtliche Geltung dieser Normen; diese kann nicht nachgewiesen werden.

Auch sonstige völkerrechtliche Normen sind für den Antarktistourismus von unterschiedlicher Bedeutung (3.2): Gezeigt wird dies anhand der Normen des Seerechtsübereinkommens der Vereinten Nationen (UNCLOS), des Internationalen Übereinkommens zur Verhütung der Meeresverschmutzung (MARPOL) und des Internationalen Übereinkommen zum Schutz des Menschlichen Lebens auf See (SOLAS). Die hier aufgeführten Normen sind im Antarktisgebiet anwendbar. Das Seerechtsübereinkommen enthält Grundverpflichtungen zum maritimen Umweltschutz (Art. 192 ff. UNCLOS), aber keine spezifischen Regelungen zum Antarktistourismus. Anderes gilt für MARPOL und SOLAS, insbesondere nach Inkrafttreten des Polar Codes. Die IMO-Abkommen sind dabei auf Grundlage der Hafenstaatkontrolle auch über das traditionelle Flaggenstaatsprinzip hinaus durchsetzbar.

Dagegen erhöhen umweltvölkerrechtliche Normen das Umweltschutzniveau in der Antarktis im Vergleich zum umfassenderen Umweltschutzprotokoll nicht (3.3). Allerdings sind drei umweltvölkerrechtliche Prinzipien für den Schutz der antarktischen Umwelt vor Schäden durch touristische Aktivitäten für alle Staaten besonders bedeutsam: Dies ist, erstens, das Vorsorgeprinzip, das Staaten verpflichtet, bereits dann Maßnahmen gegen zukünftige irreversible Umweltschäden zu ergreifen, wenn ein bloßes Risiko solcher Schäden besteht. Zum zweiten gilt der Grundsatz der Schadensprävention, der Staaten verpflichtet, keine Umweltschäden zu verursachen. Und drittens gilt das Prinzip der Nachhaltigkeit, das eine möglichst schonende Nutzung natürlicher Ressourcen verlangt.

Darüber hinaus kann jedoch kein regionales Gewohnheitsrecht zum Schutz polarer Gebiete nachgewiesen werden (3.4). Dies gilt, obwohl sich restriktive nationale Schutzregime auf den die Antarktis umliegenden Inseln ausgebildet haben.

Es wird schließlich gezeigt, dass die IAATO als Verband der Antarktistourismusunternehmen mit der privatrechtlichen Regulierung des Antarktistourismus in das von den Antarktiskonsultativstaaten hinterlassene, partielle Regelungsvakuum vorstößt (3.5). Im Ergebnis kann diese private Rechtsetzung durch einen Verband, mit gewinnorientierten Unternehmen als Mitgliedern, Regelungen völkerrechtlicher Natur, die auch auf Staatengemeinschaftsinteressen ausgerichtet werden können, nicht ersetzen.

Ferner werden die nationalen Umsetzungsverfahren des EIA analysiert (3.6). Untersucht wurde die Umsetzung des EIA in Argentinien, Australien, Chile, Frankreich, Japan, Neuseeland, Südafrika, dem Vereinigten Königreich, den Vereinigten Staaten und Deutschland. Im Ergebnis lassen sich deutliche Unterschiede zwischen den nationalen Verfahren feststellen: So setzen einige Vertragsstaaten, etwa die USA und Argentinien, das EIA nicht durch ein nationales *Genehmigungsverfahren* um. Bemerkenswert ist zudem, dass zumindest ein Staat, Südafrika, das EIA bis heute nicht in nationales Recht implementiert haben. Relevante Unterschiede finden sich auch bezüglich der Ausnahmen der Anwendbarkeit nationaler Verfahren für Fälle, in denen die geplante Aktivität bereits von einem anderen Vertragsstaat genehmigt wurde. Während die meisten der untersuchten Staaten in solchen Fällen bereits rechtlich die Anwendbarkeit des eigenen Verfahrens ausschließen, sehen andere Staaten einen Anwendbarkeitsausschluss nur bei vergleichbaren Verfahren vor, so Japan, oder belassen den Anwendbarkeitsausschluss im Ermessen der Behörde, wie Neuseeland. Auch wenn eine stärkere Vereinheitlichung der nationalen Verfahren im Hinblick auf die gleichmäßige Regelung des Antarktistourismus wünschenswert wäre, haben die Vertragsstaaten bisher noch keine Vorstöße dahingehend unternommen. Bis heute ist weitgehend ungeklärt, wann eine Aktivität mehr als geringfügige oder vorübergehende Umweltauswirkungen hat.

Um die Restriktionsmöglichkeiten des Antarktistourismus in Deutschland auf Grundlage des deutschen Ausführungsgesetzes (AUG) beurteilen zu können (3.7), wird dessen Zusammenspiel mit den völkerrechtlichen Vorgaben und den divergierenden nationalen Verfahren beleuchtet. Bei der Auslegung des Ausführungsgesetzes ist zu beachten, dass dieses grundsätzlich völkerrechtsfreundlich im Hinblick auf das Umweltschutzprotokoll auszulegen ist. Die Genehmigungsbefreiung des § 3 Abs. 2 Nr. 1 AUG erfasst auch ausländische Verfahren zur Umsetzung des Umweltschutzprotokolls, die keine „Genehmigung“ sondern lediglich eine Notifikation beinhalten.

Eine Genehmigung für eine touristische Antarktisaktivität kann nach dem AUG in zwei Fällen untersagt werden: Zum einen, wenn das Umweltbundesamt als Genehmigungsbehörde sein gesetzlich eingeräumtes Ermessen entsprechend ausübt; dies ist allerdings nur bei touristischen Tätigkeiten mit mehr als vorübergehenden Umweltauswirkungen möglich (§ 12 Abs. 2 AUG). Zum anderen kann von einem Beurteilungsspielraum des Umweltbundesamtes insbesondere mit Blick auf die Risikobewertung der Aktivität ausgegangen werden, der nur begrenzt gerichtlich überprüft werden kann. Allerdings ist im Ergebnis die Behörde durch ihre vorherige Praxis eingeschränkt, von der sie nur mit guten Gründen abweichen kann.

Nach dem AUG ist jedoch auch eine Begrenzung der Art und Weise des Antarktistourismus möglich: Gesetzlich besteht die Möglichkeit von Auflagen und Bedingungen. Die zeitliche Befristung einer Tätigkeit ist zwingend vorgeschrieben. Im Ergebnis erscheint eine auflösende Bedingung als ein geeignetes Mittel, da nur so gewährleistet werden kann, dass der Verstoß gegen die mit der Genehmigung erteilten Bedingung auch automatisch ein ordnungswidriges Verhalten nach sich zieht.

Als Ergebnis der rechtlichen Untersuchungen des zweiten Teils gilt wegen der oben bezeichneten Mängel und Lücken der rechtlichen Regelungen (3.8): Es fehlt dem Antarktistourismus an einem normativen Regulierungsrahmen der hinreichend konkret und effektiv den Widerspruch zwischen den Zielen des Antarktisvertrages und des Umweltschutzprotokolls – Umweltschutz, Freiheit der Forschung – einerseits und der privaten und wirtschaftlichen Nutzung der Antarktis durch Tourismusunternehmen und Touristen andererseits auflöst. Dieser Befund widerspricht klar dem allgemeinen Ziel des Umweltschutzprotokolls, ein umfassendes System zum Schutz der antarktischen Umwelt zu schaffen.

Der vierte Teil der Untersuchung schlägt daher Verbesserungen für eine Weiterentwicklung des rechtlichen Rahmens zur Regulierung und zum Management des Antarktistourismus vor (4). Grundlage ist die Diskussion zum Antarktistourismus durch die Konsultativstaaten seit den 1960er Jahren, die jedoch bisher nicht zu greifbaren Ergebnissen geführt hat (4.1).



Für ein verbessertes Tourismusmanagement werden vorliegend drei Vorschläge dargelegt und bewertet (4.2):

Erstens besteht die Möglichkeit die IAATO aufzuwerten und in das ATCM-System weiter zu integrieren. Das Management des Antarktistourismus durch die IAATO – etwa das Landungsmanagement – könnte in den ATCM-Rahmen integriert werden. Dagegen spricht jedoch, dass die IAATO auf gegenwärtiger privatrechtlicher Grundlage notwendig auf die Interessen ihrer Mitglieder, einem Teil der privatwirtschaftlich agierenden Tourismusunternehmen, ausgerichtet bleiben muss.

Zweitens könnte das Tourismusmanagement durch die Konsultativstaaten verbessert werden: Durch eine Aufwertung des Sekretariats ließe sich eine verbesserte Datensammlung ermöglichen. Das EIES könnte um weitere Elemente ergänzt und verbessert werden, die es dem Sekretariat erlaubten, selbst unmittelbar von den Tourismusanbietern Daten zu sammeln. Ferner könnte durch eine Neuausrichtung von Beobachtern eine bessere Überwachung touristischer Tätigkeiten erreicht werden. Dies ließe sich bereits auf der heutigen Rechtsgrundlage erreichen (Art. VII Abs. 1 AntV). Die zusätzlichen Aufgaben des Sekretariats könnte durch die Erhebung von Gebühren für touristische Aktivitäten finanziert werden.

Drittens könnte ein verbessertes Tourismusmanagement durch die Gründung einer neuen Public Private Partnership (PPP) erreicht werden, die sowohl die Tourismusindustrie als auch die Vertragsstaaten als Mitglieder umfassen könnte und damit die Expertise aller relevanten Akteure vereinen würde.

Im Ergebnis wird vorliegend vertreten, zunächst ein verbessertes Tourismusmanagement durch die Antarktisvertragsstaaten und das ATCM-Sekretariat zu erreichen (Lösung 2). Allerdings ist die Realisierbarkeit dieses Vorschlages unklar, da sich einige Konsultativstaaten gegen jede Aufgabenerweiterung des Sekretariats wenden. Als zweite Möglichkeit könnte, bei einem Scheitern von Lösung 2, über die Einführung einer PPP nachgedacht werden.

Zudem werden effektive Tourismusregulierungen vorgeschlagen (4.3). Entscheidend ist zunächst die Verbesserung des EIA. Für die Vereinheitlichung der divergierenden nationalen Verfahren ist es erforderlich, verbindlich festzulegen, dass es einer behördlichen Genehmigung für touristische Aktivitäten bedarf. Ferner sollte das EIA im Hinblick auf touristische Aktivitäten konkretisiert werden: Die Vertragsstaaten sollten klarstellen, dass bei der potentiellen Verwendung permanenter und semi-permanenter Infrastruktur für touristische Tätigkeiten die Vermutung besteht, dass die Schwelle von mehr als geringfügigen oder vorübergehenden Umweltauswirkungen überschritten wird. Schließlich bedarf es einer besseren Berücksichtigung kumulativer Umweltauswirkungen: Die Umweltauswirkung einer einzelnen Aktivität sollte vor dem Hintergrund bereits andauernder und geplanter Aktivitäten beurteilt werden müssen.

Für die mögliche Begrenzung des Antarktistourismus in der Zukunft gilt das Folgende:

Gefordert wird ein generelles Verbot für touristische Tätigkeiten mit mehr als vorübergehenden oder geringfügigen Umweltauswirkungen sowie für touristische Tätigkeiten, welche per se nicht im Einklang mit dem Recht des Antarktisvertragssystems – und hierzu zählt auch das Sekundärrecht – durchgeführt werden können.

Begrenzungen werden sowohl im Hinblick auf die Art, als auch bezüglich des Ortes touristischer Aktivitäten und der Anzahl von Antarktistouristen vorgeschlagen. Zur Verhinderung von Normenübertretungen werden einerseits Präventivmaßnahmen erörtert und andererseits wird vorgeschlagen, bestehende Strafvorschriften auszuweiten.

Im Anschluss wird gezeigt, wie die hier gemachten Vorschläge für ein verbessertes Tourismusmanagement und eine verbesserte Tourismusregulierung formell umgesetzt werden können (4.4). Empfohlen wird die Änderung des Umweltschutzprotokolls ggf. auch die Ausarbeitung einer neuen „Tourismus-Anlage“ zum Umweltschutzprotokoll, die sämtliche Fragen des Antarktistourismus rechtsverbindlich regelt. Die Erfolgsaussichten für eine solche Änderung oder eine neue Anlage sind allerdings, zumindest

in naher Zukunft, gering einzuschätzen. Möglich ist es jedoch einzelne Fragen der Regulierung des Antarktistourismus durch Instrumente der ATCM-Sekundärrechtssetzung zu regeln: Unverbindliche Resolutionen können hier als Vorläufer für völkervertragliche Regelungen genutzt werden. Ferner kommt solchen Resolutionen eine autoritative Wirkung bei der Vertragsauslegung zu, wenn diese einen Konsens der Vertragsstaaten über die Auslegung unbestimmter Rechtsbegriffe im Umweltschutzprotokoll abbilden. Durch Maßnahmen könnte die Datensammlung durch die Vertragsstaaten weiterentwickelt werden. Eine Entscheidung erlaubt es den Konsultativstaaten, Fragen zum Antarktistourismus für alle Antarktisvertragsstaaten autoritativ zu regeln; erfasst werden so auch Antarktisvertragsstaaten, die nicht dem Umweltschutzprotokoll beigetreten sind. Im Hinblick auf den mangelnden Konsens unter den Konsultativstaaten bezüglich des Antarktistourismus bietet sich auch die Verabschiedung unverbindlicher Codes of Conducts an.

Zuletzt wird auf eine Verbesserung der deutschen Rechtslage eingegangen (4.5). Für die Änderung des deutschen Ausführungsgesetzes zur besseren Regulierung des antarktischen Tourismus wird Folgendes vorgeschlagen:

Die Anwendbarkeit des AUG sollte auf sämtliche Tätigkeiten, für die nach Art. VII Abs. 5 lit. a AntV eine Notifikationspflicht besteht, auf sämtliche deutsche Staatsangehörige und Schiffe erweitert werden. Es sollte eine Meldepflicht für touristische Tätigkeiten sämtlicher deutscher Staatsangehöriger eingeführt werden, die es der Genehmigungsbehörde erlaubt, festzustellen, ob eine ausländische Genehmigung erteilt wurde und von wem. Ausländische Genehmigungen für touristische Aktivitäten sollten nicht anerkannt werden, soweit diese nicht weitgehend dem deutschen AUG entsprechen. Eine Strafbarkeit für touristische Antarktisaktivitäten ohne Genehmigung sollte eingeführt werden.

Diese Möglichkeiten ließen sich im ordentlichen Gesetzgebungsverfahren umsetzen. Verfassungsrechtliche Bedenken bestehen im Hinblick auf diese Vorschläge, die auf touristische Aktivitäten begrenzt sind und nicht auf Forschungsaktivitäten anwendbar sind, nicht.

# 1 Introduction\*

Antarctica was once a remote continent. Today, it is a – albeit an exclusive – tourist destination among many others. Currently, Antarctic tourism is the main economic activity in Antarctica.<sup>1</sup> Even though it is in no way a recent phenomenon – organized tourism in Antarctica already began in the late 1960s<sup>2</sup> – it only developed its present dynamic after the turn of the millennium. This firstly is true with regard to the number of tourists in Antarctica. From 2000 to 2007 the number of tourists doubled to over 45,000 per season.<sup>3</sup> Secondly, in the last years, there has also been a fundamental change with respect to the kind of tourist activities. On the one hand, the locations of the activities have spread out and by now encompass the entire continent, although the Antarctic Peninsula remains the geographic focal point of tourism in the Antarctic Treaty area. On the other hand, the types of activities have changed: Initially, cruises with landings, so-called expedition cruises, were almost exclusively conducted. Today, an abundant variety of options is offered: From marathons, to diving, skiing, surfing or so-called geocaching.<sup>4</sup> This change – at least potentially – threatens the extremely sensitive ecosystem of Antarctica. Antarctica, the driest and coldest continent, is unique in many respects.<sup>5</sup> Only a few plants and invertebrate animals can survive in ice-free regions of the continent.<sup>6</sup>

The legal nature of this area is also singular. What kind of activities are allowed or prohibited in Antarctica is stipulated by the parties of the Antarctic Treaty<sup>7</sup> that is binding under international law. Although there still do not exist any specific regulations for Antarctic tourism under international law, it nevertheless takes place within a legal framework which is established especially by the Consultative States<sup>8</sup> of the Antarctic Treaty: In the law of the Antarctic Treaty system, the implementing national rules of the States parties<sup>9</sup> and the regulations of the International Association of Antarctica Tour Operators (IAATO),<sup>10</sup> rules concerning Antarctic tourism can be found. Furthermore, Antarctic tourism has already been discussed by the Consultative States in the framework of the Antarctic Treaty Consultative Meetings (ATCM) since

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<sup>1</sup> D. Liggett/A. McIntosh/A. Thomson/N. Gilbert/B. Storey 2011, 357.

<sup>2</sup> On the general history of Antarctic tourism, B. Stonehouse/J. Snyder 2010, 44 et seq.

<sup>3</sup> New Zealand, ATCM XXXV (2012), 14. Cf. also S. Vöneky 2008, 169 et seq. with further references.

<sup>4</sup> See 2.2.1.

<sup>5</sup> Cf. only N.W. Roland 2009, 5 et seq., 195 et seq.; T. Bauer 2001, 41; also S. Vöneky 2008, 168 with further references.

<sup>6</sup> Cf. only J. May 1988, 70 et seq.

<sup>7</sup> See note 13 with further references; see also 3.1.

<sup>8</sup> Cf. Art. IX(2) AT; see also S. Vöneky/S. Addison-Agyei 2012, 418, paras. 27 et seq. with further references.

<sup>9</sup> For the legislation implementing tourism-related rules of international law in selected States, cf 3.6.

<sup>10</sup> For this, cf. 3.5. IAATO is an umbrella organization of Antarctic tourism operators that was founded in 1991 by seven companies; see also J. Splettstoesser 2000, 47. Today IAATO consists of 118 companies from 19 States; see ATCM XXXVII (2014), IP 44, 1, available at: <http://apps.iaato.org/iaato/directory/list.jsf> [all websites were last accessed in November 2014].

1966.<sup>11</sup> The States parties to the Antarctic Treaty must be differentiated into two groups: One group, the Consultative States (currently 29 States), which possess the possibility to adopt rules for Antarctica within the ATCM-framework; and the remaining States parties, the Non-Consultative States (currently 22 States), which do not have a voting right.

However, it is questionable whether the existing rules are sufficient or whether there is a need for further regulation of Antarctic tourism, since the Consultative States agreed to designate Antarctica as a natural reserve that is devoted to peace and science (Art. 2 Environmental Protocol). These questions are to be answered on the basis of new empirical data on Antarctic tourism. The first part of this study thus presents the factual foundation – on the basis of accessible data collected specifically for this purpose – for the legal analysis (“The factual developments of Antarctic tourism”). Against the background of already published studies, which extensively illuminate the environmental impacts of Antarctic tourism and describe its overall development,<sup>12</sup> this study focuses on the changed framework conditions of Antarctic tourism in the last years. Here, the investigation of three questions is pivotal: Which tourist activities are conducted in Antarctica today? Who is conducting these activities? Can cases of non-compliance with the provisions on Antarctic tourism be shown? On this basis, an outlook will be made how the extent and form of Antarctic tourism will develop in the future.

The second part (“The normative framework of Antarctic tourism”) analyzes the legal framework of Antarctic tourism according to the existing norms (*de lege lata*). Three different regulatory frameworks are relevant: rules of international law, national rules of States parties, and the regulation of the tourism industry. Ultimately, although there are no specific rules of international law on Antarctic tourism to date, a comprehensive corpus of rules that directly or indirectly affects Antarctic tourism can be established. Nevertheless it can be shown that the existing rules governing Antarctic tourism leave the central question on the future of Antarctic tourism unanswered – both as far as its quality and its quantity is concerned: How many tourists are sustainable considering the extremely sensitive environment of Antarctica and which activities are compatible with the special dedication of Antarctica? With respect to the German practice of implementing the international rules, this study shows how a stricter regulation of Antarctic tourism on the basis of the current legal situation can be achieved.

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<sup>11</sup> For the discussion among the Consultative States on Antarctic tourism, see ATCM IV (1966), Final Report, para. 2; ATCM VI (1970), Final Report, para. 6; ATCM VII (1972), Final Report, para. 6; ATCM VIII (1975), Final Report, para. 6; ATCM IX (1977), Final Report, para. 12; ATCM X (1979), Final Report, para. 14; ATCM XI (1981), Final Report, para. 16; ATCM XII (1983), Final Report, paras. 27-30; ATCM XIII (1985), Final Report, paras. 68-70; ATCM XIV (1987), Final Report, paras. 120-123; ATCM XV (1989), Final Report, paras. 155-158; ATCM XVI (1991), Final Report, paras. 111-113; ATCM XVII (1992), Final Report, paras. 108-114; ATCM XVIII (1994), Final Report, paras. 56-63; ATCM XIX (1995), Final Report, paras. 55-60; ATCM XX (1996), Final Report, paras. 75-87; ATCM XXI (1997), Final Report, paras. 89-100; ATCM XXII (1998), Final Report, paras. 101-111; ATCM XXIII (1999), Final Report, paras. 115-123; ATCM XXIV (2001), Final Report, paras. 104-112; ATCM XXV (2002), Final Report, paras. 107-120; ATCM XXVI (2003), Final Report, paras. 129-152; ATME, 2004a; ATCM XXVII (2004), Final Report, paras. 161-196; ATCM XXVIII (2005), Final Report, paras. 153-180; ATCM XXIX (2006), Final Report, paras. 145-172; ATCM XXX (2007), Final Report, paras. 145-172; ATCM XXXI (2008), Final Report, para. 174-251; ATCM XXXII (2009), Final Report, paras. 159-234; ATME 2009; ATCM XXXIII (2010), Final Report, paras. 227-377; ATCM XXXIV (2011), Final Report, paras. 212-369; ATCM XXXV (2012), Final Report, paras. 215-352; ATCM XXXVI (2013), Final Report, paras. 224-272; ATCM XXXVII (2014), Final Report, paras. 203-286.

<sup>12</sup> Cf. New Zealand, ATCM XXXV (2012).

The third part (“Proposals for the further development of the legal framework for Antarctic tourism”) presents possible solutions to improve the legal framework for Antarctic tourism in the future (*de lege ferenda*). Proposals for the improvement of the data collection and the supervision of tourist activities are advanced. Further, the study illustrates how the Consultative States can better regulate the extent and different types of Antarctic tourism in the future. Moreover the instruments, with which these proposals can be implemented, are identified. Finally, the study describes which possibilities to better regulate Antarctic tourism in the future are available to the German legislator.

## **1.1 Antarctic Tourism and the Antarctic Treaty system – grasping the normative problems posed by tourism**

The following section elaborates the normative basis for the study. The legal framework for Antarctic tourism is above all the Antarctic Treaty system (ATS).<sup>13</sup> In order to be able to grasp tourism in Antarctica as a legal problem, it is necessary to first connect Antarctic tourism with the objectives of the Antarctic Treaty system. In doing so, the study shows how Antarctic tourism potentially imperils the objectives of the Antarctic Treaty system on the one hand and examines whether it can also serve these objectives on the other hand.

### **1.1.1 Objectives of the Antarctic Treaty system**

The purpose of the Antarctic Treaty system is to reach and secure four objectives. These are

- the devotion of Antarctica to peaceful purposes;
- the preliminary settlement of the territorial claims;
- the safeguarding of the freedom of scientific research, and
- the protection of the environment.

The first three objectives are explicitly named in the Antarctic Treaty (Art. I(1), Art. II and Art. IV AT). The protection of the environment is not explicitly mentioned in the Antarctic Treaty.<sup>14</sup> However, it was introduced into the treaty system by the Convention for the Conservation of Antarctic Seals (CCAS) and the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) as well as already earli-

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<sup>13</sup> Pursuant to Art. 1(e) of the Protocol on Environmental Protection to the Antarctic Treaty (Environmental Protocol) of 4 October 1991, entered into force 14 January 1998, for the Federal Republic of Germany (30 ILM 1455, BGBl. II 1994, 2478), the Antarctic Treaty system encompasses: “the Antarctic Treaty, the measures in effect under that Treaty, its associated separate international instruments in force and the measures in effect under those instruments.” The treaties named there include, next to the Antarctic Treaty of 1 December 1959 (AT), entered into force 23 June 1963, for the Federal Republic of Germany 23 Dezember 1978 (402 UNTS 71, BGBl. II 1978, 1517), the Convention for the Conservation of Antarctic Seals of 1 June 1972 (CCAS), entered into force 12 April 1978, for the Federal Republic of Germany 28 January 1987 (1080 UNTS 175, BGBl. II 1987, 90), and the Convention for the Conservation of Antarctic Marine Living Resources of 20 May 1980 (CCAMLR), entered into force 7 April 1982, for the Federal Republic of Germany 23 May 1982 (1329 UNTS 47, BGBl. II 1982, 421), as well as the Environmental Protocol. Furthermore, the secondary law instruments adopted the basis of these treaties is also contained by the definition contained in art. 1 (e); see for this 3.1.2.

<sup>14</sup> However, the notion of environmental protection can be found in Art. IX(1)(f) and Art. V(1) AT; see also S.K.N. Blay 1992, 377, 378 et seq.

er by numerous ATCM-recommendations.<sup>15</sup> At latest since the adoption of the Environmental Protocol, environmental protection must be viewed as equivalent to the other objectives.<sup>16</sup>

Antarctic tourism does not pose a fundamental problem with respect to the preliminary settlement of territorial claims as well as to the devotion of Antarctica to peaceful purposes.<sup>17</sup> In the following, this study will therefore only examine the relationship of Antarctic tourism to the protection of the Antarctic environment and the freedom of scientific research.

### 1.1.2 Tourism as a threat to the Antarctic environment

The notion of environmental protection of the Antarctic Treaty system consists of two elements: Firstly, the comprehensive protection of the Antarctic ecosystem and secondly the designation of Antarctica as a natural reserve, which is connected to the protection of Antarctica as the last wilderness on earth (Art. 2 Environmental Protocol). General statements concerning the environmental impacts of Antarctic tourism overall are hard to make since the environmental impacts of different forms of tourism are not the same.<sup>18</sup> There is a need for further research in that regard that exceeds the scope of this study. In the following, however, the known environmental impacts and threats caused by Antarctic tourism shall be sketched out.<sup>19</sup>

Through the increase of tourist activities, the risk of greater accidents in Antarctica increases.<sup>20</sup> This is exemplified by severe accidents in the Antarctic Treaty area which were in part caused by tourism or which are related to tourist activities. These are the crash of Air New Zealand Flight 901 near Mount Erebus on 28 November 1979 with 257 deaths,<sup>21</sup> the sinking of the *Bahia Paraíso* on 28 January 1989 that led to the spilling of 600,000 liters of heavy fuel oil and constituted one of the biggest environmental disasters in the history of Antarctica, and the sinking of the *Explorer* after a collision with an iceberg on 23 November 2007.<sup>22</sup> Besides such severe accidents smaller incidents occur: Recently, on 24 December 2013, a Russian vessel, the *Akademik Shokalskiy*, with 74 persons on board – 52 tourists, scientific personnel, and journalists as well as 22 crew members – was locked-in by ice on its return journey from the Antarctic Treaty area. Multiple attempts to free the vessel from the pack ice failed until the vessel was able to free itself on 7 January 2014.<sup>23</sup>

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<sup>15</sup> See for instance ATCM III (1964), Recommendation III-VIII; further also A. Watts 1992, 256.

<sup>16</sup> S. Vöneky/S. Addison-Agyei 2012, 418, paras. 17 et seq.

<sup>17</sup> For jurisdictional problems due to the only ‘frozen’ territorial claims of individual States, cf. 3.1.1.1.

<sup>18</sup> Cf. New Zealand, ATCM XXXV (2012), 39 et seq.

<sup>19</sup> Cf. New Zealand, ATCM XXXV (2012), 38 et seq.

<sup>20</sup> For this see ATCM XXXVII (2014), Resolution 6; see also J. Verbitsky 2013, 220, 230.

<sup>21</sup> F. Auburn 1989, 156 et seq.

<sup>22</sup> A detailed report is available at: <http://www.nationalgeographic.com/adventure/news/explorer-sinks-antarctica.html>. Even if the *Bahia Paraíso* is not a cruise ship, but a supply ship, its sinking nevertheless was linked to Antarctic tourism, since the accident occurred during the attempt to bring tourists to Palmers Station (United States); see New Zealand, ATCM XXXV (2012), 39.

<sup>23</sup> See for instance ATCM XXXVII (2014), IP 65; ATCM XXXVII (2014), IP 95, Annex 10. See generally D. Liggett/A. McIntosh/A. Thomson/N. Gilbert/B. Storey 2011, 359 with further references.

However, the main threat to the Antarctic environment is a creeping destruction of the environment due to the cumulative effects of Antarctic tourism. The introduction of non-native species is relevant in this context.<sup>24</sup> A study by the International Polar Year Programme found that 21% of the tourists and 54% of the tourist support personnel were carrying seeds of non-native species to Antarctica.<sup>25</sup> This shows that one can expect the introduction of non-native, partly even invasive, organisms to rise if tourists and tourist support personnel tread more in Antarctica. Particularly the introduction of diseases can harm the Antarctic fauna.<sup>26</sup> The disturbance of wild animals due to the failure to observe the minimum distance, footpath erosion, as well as the causation of sound and light emissions, and exhaust gases, as well as the leaving behind of waste, remain problematic.<sup>27</sup> This is even more true as the regions, in which a large part of tourism takes place, are the vulnerable coastal regions of the Antarctic Peninsula.<sup>28</sup>

The protected status of Antarctica as a natural reserve is also legally significant. Hereby an additional dimension of protection is enshrined that extends beyond the 'mere' protection of the ecosystem.<sup>29</sup> According to Art. 3(1) Environmental Protocol, the Protocol also protects the "[...] intrinsic value of Antarctica, including its wilderness and aesthetic values [...]". It follows from this wording that the States parties wanted to permanently maintain and preserve the intrinsic value of Antarctica, including the wilderness and aesthetic value of the Antarctic continent. Even if these values were not further elaborated in the subsequent practice of the States parties and require concretization, it can be argued that the quantitative increase of Antarctic tourism threatens and has in part already destroyed the wilderness and pristine quality of the Antarctic continent. This at least applies to the areas that are highly frequented by tourists like the Antarctic Peninsula, which today can no longer be considered pristine.<sup>30</sup> The pristine quality of Antarctica is also threatened by the expansion of Antarctic tourism to the inner areas of Antarctica, that so far have barely been exposed to tourism.

In addition, Antarctic tourism can threaten the Antarctic heritage – for instance the still maintained and protected research stations of past Antarctic expeditions.<sup>31</sup> The state of the facilities is impacted by their use and visitation; in exceptional cases, even souvenirs have been taken and sites have been destroyed or damaged: for instance, in 2010 the historical Wordie House site was vandalized.<sup>32</sup>

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<sup>24</sup> ATCM XXXVII (2014), WP 4.

<sup>25</sup> ATCM XXXIII (2010), WP 4, 4. In total, data from 361 tourists and 21 tourist support personnel were evaluated.

<sup>26</sup> E.J. Stewart/D. Draper/M. Johnston 2005, 386.

<sup>27</sup> Cf. only New Zealand, Environmental Aspects and Impacts of Tourism and Non-Governmental Activities in Antarctica, ATCM XXXV (2012), 39 et seq. For foot erosion see, ATCM XXXVI (2013), IP 102, IAATO "Barrientos Island Footpath Erosion"; see further K. Chwedorzewska/M. Korczak, Human Impact upon the Environment in the Vicinity of Arctowski Station, King George Island, Antarctica, 31 Polish Polar Research 2010, 45.

<sup>28</sup> E.J. Stewart/D. Draper/M. Johnston 2005, 386 with further references.

<sup>29</sup> For this also cf. S. Scott 2001, 966: "There is, thirdly, an intangible, perhaps even spiritual, dimension to the respect for the Antarctic environment embedded in the Protocol; it is accepted that, as the last wilderness, Antarctica is worth preserving for its 'intrinsic value' including its 'wilderness and aesthetic values' [...]".

<sup>30</sup> For the domestic legal practice with respect to these terms, cf. K. Bastmeijer 2005, 353 with further references. A site like Port Lockroy with more than 18,000 visitors in a time period of three months (November 2010 to February 2013) can no longer be described as 'pristine', *ibid.*, 351.

<sup>31</sup> M. Hall 1992, 7.

<sup>32</sup> ATCM XXXIII (2010), WP 25.

### 1.1.3 Tourism as a threat to Antarctic research

Antarctic tourism can also conflict with the – legally privileged – research in Antarctica. The guarantee of the freedom of scientific research and of suitable research conditions are central elements of the Antarctic Treaty system. For numerous areas of research, Antarctica offers special and unique conditions. These conditions depend on the pristine quality of the Antarctic continent, free of other human activities. Particularly land-based tourism near research stations has the ability to disturb research.<sup>33</sup> Further, tourist accidents and incidents disturb research work since national scientific programs are involved in the search and rescue of Antarctic tourists.<sup>34</sup>

### 1.1.4 Positive aspects of Antarctic tourism?

It is questionable whether Antarctic tourism can only be seen in contrast to the objectives of the Antarctic Treaty system. It is argued that in some cases, Antarctic tourism serves the objectives of the Antarctic Treaty system.<sup>35</sup> According to the opinion of the tourism industry, Antarctic research profits, for instance, from Antarctic tourism since the tourism industry makes a logistical contribution to support Antarctic research by transporting, on cruise vessels, scientific personnel and research equipment of various States to research sites and research stations.<sup>36</sup> In addition, tourists can visit research stations, possibly even stay there over-night, which, according to this opinion, has financial advantages for research stations.<sup>37</sup> Furthermore, the establishment of public awareness in Antarctica through tourist activities could positively affect the protection of the environment.<sup>38</sup> IAATO is also of the opinion that tourists act as ‘ambassadors’ for environmental protection in Antarctica,<sup>39</sup> since a stay in Antarctica has a positive effect on the behavior of Antarctic tourists and thus these tourists – both during as well as after their voyage – contribute to improving the protection of Antarctica.<sup>40</sup> Such a positive aftereffect of Antarctic voyages can however

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<sup>33</sup> R. Wolfrum/S. Vöneky/J. Friedrich 2005, 735, 739 et seq.; D. Vidas 1993, 208; K. Bastmeijer/M. Lamers/J. Harcha 2008, 94 et seq.; P. Beck 1990, 350.

<sup>34</sup> ATME (2004), WP 8, 1.

<sup>35</sup> Comprehensively on this topic, T. Bauer 2001, 121 et seq.

<sup>36</sup> Available at: <http://iaato.org/supporting-science>; see also Art. II Section J Art. II Section H IAATO-Bylaws in the version from 1 May 2013, available at: <http://iaato.org/bylaws>.

<sup>37</sup> Cf. also with respect to this topic, a study by the Council of National Antarctic Programmes (COMNAP), according to which 13 Consultative States indicated regular tourist visits at their research stations; ATCM XXV (2002), IP 27, paras. 6 et seq.; Overnight stays are at least offered in connection with the Chilean Rodolfo Marsh Martin Aerodrome; cf. for this: <http://www.aeroviasdap.cl/>.

<sup>38</sup> I. Nicholson 1986, 202.

<sup>39</sup> Art. II Section H IAATO-Bylaws as of 1 May 2013, available at: <http://iaato.org/bylaws>. Cf. for this argument, already P. Hart 1988 98: “Few people returning from Antarctica fail to be untouched by it in some personal way. Many return almost as missionaries, not only for Antarctica’s conservation, but also to encourage others to visit and share their enthusiasm”.

<sup>40</sup> Cf. R. Powell/S. Kellert/S. Ham 2008; P. Maher/G. Steel/A. McIntosh 2003, available at: [http://researcharchive.lincoln.ac.nz/bitstream/10182/3749/1/rmrs\\_p027\\_204\\_210.pdf](http://researcharchive.lincoln.ac.nz/bitstream/10182/3749/1/rmrs_p027_204_210.pdf).



not be empirically substantiated.<sup>41</sup> The high CO<sub>2</sub>-emissions of such a voyage can also not be justified by possible positive aftereffects.<sup>42</sup>

## 1.2 Antarctic tourism

### 1.2.1 Definitions

In the law of the Antarctic Treaty system, there is to date no definition of the notion ‘Antarctic tourist’ or ‘Antarctic tourism’; furthermore, there is also no stipulation with respect to individual tourist activities. A uniform definition among the States parties does not exist,<sup>43</sup> the notions are in part employed incoherently by the States parties.<sup>44</sup> A multitude of different definitions are used by scholars.<sup>45</sup> The term can only be defined clearly *ratione loci*: Antarctic tourism occurs in the Antarctic Treaty area, *i.e.* south of 60 degrees south latitude (Art VI AT). Here a comprehensive terminological categorization, which encompasses all relevant groups of persons and activities, is proposed on the basis of the already existing regulations in the Antarctic treaties.

#### 1.2.1.1 Groups of persons: tourists and visitors

##### Tourists

The term ‘tourist’ is found neither in the Antarctic Treaty nor in the Environmental Protocol. The Antarctic Treaty differentiates between four different categories of persons. *Firstly* scientific personnel (Art. III(1)(b); Art. VIII(1) AT).<sup>46</sup> *Secondly* observers pursuant to Art. VII(1) AT and Art. 14(2) Environmental Protocol, appointed by the Consultative States to supervise the adherence to the regulations of the Antarctic Treaty through inspections. *Thirdly* members of the staffs accompanying any such persons (Art. VIII(1) AT). *Fourthly* military personnel, which may be used for scientific research or for any other peaceful purpose (Art. I(2) AT).

It is questionable whether all other persons in the Antarctic Treaty area, who do not fall into one of the categories named above, are tourists or whether the definition of a tourist has to be further restricted. In English, the word ‘tourist’ describes a person “who visits places for pleasure and interest, especially when

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<sup>41</sup> R. Powell/S. Kellert/S. Ham 2008, 233, 239.

<sup>42</sup> E. Eijgelaar/C. Thaper/P. Peeters 2010, 337.

<sup>43</sup> Several attempts for adopting a definition were undertaken by the Consultative States; cf. for instance a draft by Argentina: “Tourist was defined as any person or member of tourist expeditions whether travelling as crew member, journalist, scientist, technician, guide etc.” cited in B. Bozek 1988 462, 464; see also ATCM XVII (1992), WP 1: “The provisions of this Annex shall apply to any non-official visitor during his travel and stay in the Antarctic Treaty Area and not carrying out either a scientific activity sponsored by a State party to the Protocol or a fishing activity of those regulated by the Convention on the Conservation of Antarctic Marine Living Resources, and also to any natural or juridical person organizing this type of travels and stays in Antarctica”.

<sup>44</sup> For this see already, B. Bozek, 1988, 462.

<sup>45</sup> Cf. for instance P. Maher/A. McIntosh/G. Steel 2006, 51; C. Murray/J. Jabour 2004, 311; D. Enzenbacher 1994a, 17; T. Bauer 2001, 15.

<sup>46</sup> The term ‘scientific personnel’ is also not defined in the Antarctic Treaty.

he or she is on holiday.”<sup>47</sup> In German, a tourist is described as ‘Urlaubsreisender’<sup>48</sup> (‘a person who is traveling on their vacation’). The advantage of this definition is that all tourists have in common that they travel without a further primary purpose (‘for pleasure’) and precisely not to predominantly pursue other, especially professional objectives that serve to establish or maintain their living, like for instance research, art, trade, commercial fishing etc.<sup>49</sup> This also applies to the Antarctic context.<sup>50</sup>

Since all individuals in the four groups named in the Antarctic Treaty pursue a special professional activity in Antarctica, tourists – as a *fifth category* – are to be clearly differentiated from these individuals, both materially and terminologically: An Antarctic tourist is someone who travels to Antarctica without a further primary purpose, i.e. outside a professional context.

Media representatives, organizers of voyages or advertising events and their staff, the crew located on site, are thus generally not tourists provided that they pursue their profession in Antarctica.<sup>51</sup> The same applies to individuals who, like scientific personnel or commercial fishers, pursue a profession in Antarctica that is subject to special legal rules.<sup>52</sup>

According to the definitions laid out above, it is however not impossible for scientific personnel, observers, media representatives, tourism operators, or military personnel to be a tourist if they visit places in Antarctica outside of their professional activity – *e.g.* during their free time or vacation.

Members of so-called charity-expeditions are a difficult case.<sup>53</sup> If one considers the voyage itself to be the focus of their Antarctic voyage, then they are tourists in the above sense. This categorization is supported by the fact that generally the collection of donations for charity-purposes is only the long-term objective of the voyage and cannot be viewed as a professional activity.<sup>54</sup>

Further restrictions on the tourist definition are to be rejected: Too vague to be considered a yardstick for whether a person is a tourist, for instance, is the affiliation with a commercially organized expedition.<sup>55</sup> It is often difficult to determine when an expedition is ‘commercially’ organized, for example in the area of yacht tourism. In this context, it is unclear whether the repeated organization of voyages is necessary; it is also unclear whether the intention to realize profits on the side of the organizer is necessary or whether voyages that only demand the covering of the costs are also encompassed.

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<sup>47</sup> Cf. only Collins Cobuild 1987, 1548.

<sup>48</sup> Duden 2013, 1068.

<sup>49</sup> For the definition of the notion of profession in German constitutional law pursuant to Art. 12 GG (occupational freedom), cf. only BVerfGE 105, 252, 265.

<sup>50</sup> Cf. C. Murray/J. Jabour 2004, 311; P. Maher/A. McIntosh/G. Steel 2006, 51.

<sup>51</sup> For a different view, see P. Maher/A. McIntosh/G. Steel 2006, 51: According to this, it is irrelevant whether the activity also pursues another purpose, for instance advertising, fundraising or sensitization of the public for a certain issue.

<sup>52</sup> Cf. 3.1.1.2 et seq.

<sup>53</sup> For the various types of tourism, see 1.2.3.

<sup>54</sup> Also in other borderline cases, like *e.g.* a voyage for pleasure in connection with an advertisement campaign, one must differentiate according to the main purpose of the voyage; if the travelers are not involved in professional activity, then they are tourists.

<sup>55</sup> But see C. Murray/J. Jabour 2004, 309, 311.

## Visitors

Since individuals that pursue their profession in Antarctica are not tourists in the above sense, a further *category*, beside tourists and the groups of persons named in the Antarctic Treaty, has to be introduced in order to categorize all persons that visit Antarctica. So far *e.g.* staff of tourism operators or cruise vessel as well as artists and media representatives, are not covered.

It is reasonable to refer to this category of persons as visitors since they are not tourists and not already subject to explicit regulations like scientific personnel and observers.<sup>56</sup>

In addition, the term ‘visitor’ should – like in the practice of Consultative States – be used as a generic term in order to avoid lacunae.<sup>57</sup> Thus scientific personnel and members of national scientific programs as well as observers, provided that they are not staying in one location or traveling to one location within the scope of their professional activity, are visitors. This results *e contrario* from the following stipulation:

*“[T]he term ‘visitors’ does not include scientists conducting research within such sites, or individuals engaged in official governmental activities.”<sup>58</sup>*

This is to be assumed for activities during free time outside of working hours and outside of the research station.<sup>59</sup>

### 1.2.1.2 Activities: Tourism and other governmental and non-governmental activities

In accordance with the categorization of the above-mentioned groups of persons, tourism as an activity can also be defined more precisely and has to be distinguished from other activities. Tourism is usually understood as (organized) travel for the purpose of becoming acquainted with foreign places and countries (“(organisierter) Reisen zum Kennenlernen fremder Orte und Länder”).<sup>60</sup> Tourism as an activity is characterized by the fact that it is undertaken for pleasure: It is not a professional activity and it does not serve the establishment or maintenance of a livelihood.

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<sup>56</sup> For this see 3.1.2.3; cf. for instance ATCM XXXVII (2014), Resolution 4, Preamble: “Confirming that the term ‘visitors’ does not include scientists conducting research within such sites, or individuals engaged in official governmental activities”.

<sup>57</sup> For this cf. ATCM, Final Report, 2005, para. 158: “The Meeting agreed however that the more generic term ‘visitor’ was more appropriate than ‘tourist’. Such a change would ensure consistency with Recommendation XVIII-I and address all who visited such sites for recreational purposes”.

<sup>58</sup> ATCM XXVIII (2005), Resolution 5 Preamble; ATCM XXIX (2006), Resolution 2, Preamble; ATCM XXX (2007), Resolution 1, Preamble; ATCM XXXI (2008), Resolution 1, Preamble; ATCM XXXII (2009), Resolution 4, Preamble; ATCM XXXIII (2010), Resolution 1, Preamble; ATCM XXXIV (2011), Resolution 4, Preamble; ATCM XXXV (2012), Resolution 4, Preamble; ATCM XXXVI (2013), Resolution 3, Preamble; ATCM XXXVII (2014), Resolution 4, Preamble.

<sup>59</sup> Usually, scientific personnel are only visitors if they depart from the research station. However, special cases are possible if research stations are also used touristically, for instance for a concert or another free time or sports activity.

<sup>60</sup> According to the English term ‘tourism’; commonly used since the middle of the 20th century, cf. Etymologisches Wörterbuch des Deutschen 1995, 1442.

Tourist activities in the sense of this study are thus, firstly, all the activities of tourists. Tourist activities are, secondly, also all the activities of visitors that are not part of their profession.<sup>61</sup>

This broad definition of tourist activities is necessary, as all the activities comprised therein have the same quality regardless of the person performing it: For instance, if a staff member of a research station participates in a marathon, his or her activity for the time period of the marathon is equivalent to that of a tourist who specifically traveled into the Antarctic Treaty area for this event. This definition is also supported by the practice of the Consultative States with respect to their site-guidelines.<sup>62</sup>

Since tourism is thereby restrictively defined, activities that do not represent tourism and also do not fall into the areas of activities that are specially regulated by the Antarctic Treaty system, particularly do not fall into the area of scientific research, must additionally be captured with a generic term. An example of a governmental activity is an official visit of a member of a government in Antarctica; an example of a non-governmental activity is a private, company-driven activity, like the shooting of an advertising video for a commercial product.<sup>63</sup> The Environmental Protocol names these activities, which are not related to research or tourism, as “all other governmental and non-governmental activities in the Antarctic Treaty area” (Art. 3 Abs. 4 USP). The Consultative States also explicitly differentiate between tourist and other non-governmental expeditions (“Tourists and Non Governmental Expeditions”).<sup>64</sup>

However, one must consider that the States parties themselves do not coherently differentiate between the terms ‘tourism’ and ‘other non-governmental activities’. This is justified as long as tourism and other non-governmental activities are covered by the same legal rules.<sup>65</sup>

Those activities, which are subject to a special legal regime, are also not only excluded from the definition of tourism but also from the definitions of other governmental and non-governmental activities. This applies to commercial fishing, which is subject to the CCAMLR<sup>66</sup>, and to mineral resource activities that are prohibited by Art. 7 Environmental Protocol.

## 1.2.2 Conclusion

- Antarctic tourism is locally restricted and takes place in the area of the Antarctic Treaty, *i.e.* south of 60 degrees south latitude (Art. VI AT).
- An Antarctic tourist is someone who travels to the Antarctic Treaty area, or in the Antarctic Treaty area, without a further primary purpose (‘for pleasure’).
- Someone who primarily pursues professional purposes in Antarctica, *i.e.* purposes that serve the establishment or maintenance of a livelihood, is not a tourist: Thus particularly scientific personnel and observers are in general not tourists; in addition, staff, which support scientific personnel

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<sup>61</sup> Further still B. Bozek 1988, 455, 462.

<sup>62</sup> For this see 3.1.2.3; cf. for instance ATCM XXXVII (2014), Resolution 4, Preamble: “Confirming that the term ‘visitors’ does not include scientists conducting research within such sites, or individuals engaged in official governmental activities”.

<sup>63</sup> For this cf. ATCM XVI (1991), WP 2, 3.

<sup>64</sup> Cf. ATCM VIII (1975), Recommendation VIII-9.

<sup>65</sup> Cf. 3.1.1.4.

<sup>66</sup> Cf. 3.1.1.3.

or observers, and military personnel are in general not tourists.<sup>67</sup> Something else can, as an exception, only apply if scientific personnel, observers, staff, or military personnel visit Antarctica outside of their profession – *i.e.* in their free time or on vacation.

- Beside the notion of a tourist, the notion of a visitor is important: Firstly, visitors are individuals that pursue their profession in the Antarctic Treaty area, but are not (unlike *inter alia* scientific personnel or observers) subject to special regulations under international law. Visitors in this sense are, for example, staff of tourist operators, media representatives, or artists. As a generic term, the definition of visitor also encompasses scientific personnel and members of national scientific programs and observers if and as long as they visit a place in Antarctica in their free time, *i.e. not* in their professional capacity.<sup>68</sup>
- Tourist activities according to this study are all activities of tourists; this also applies to the activities of visitors that are not professional activities.
- Other governmental and non-governmental activities in the Antarctic Treaty area (Art. 3(4) Environmental Protocol) are all activities, which are not related to scientific research or tourism, provided that they do not affect fishing, which is regulated by the CCAMLR<sup>69</sup>, or the prohibition of mineral resource activities (Art. 7 Environmental Protocol). The professional activities of visitors who are not scientific personnel – for instance artists and media representatives – belong to this category.

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<sup>67</sup> These individuals are already subject to special regulations of the Antarctic Treaty; research is a privileged activity.

<sup>68</sup> Pursuant to the proposed solution, the named groups of persons are thus recorded either as tourists and/or as visitors during activities in Antarctica in their free time or on vacation. It is consistent that the categories of tourists and visitors can thereby overlap, since the definition of visitors has a catch-all function and serves as the superordinate concept.

<sup>69</sup> See 3.1.1.3

**Table 1: Classification of individuals in the Antarctic Treaty area**

1. Members of national scientific programs (Art. III (1) AT)	2. Observers (Art. VII (1) AT)	3. Members of the accompanying staff of 1. and 2. (Art. VIII (1) AT)	4. Individuals who pursue professional activities within in the Antarctic Treaty area, without (like 1. – 3.) being subject to special regulations: e.g. employees of tourism companies, journalists and artists	5. Tourists
<p>Visitors (generic term)</p> <p>Tourists; all persons mentioned within 4. (above); additionally, all persons mentioned within 1. – 3., as long as they are not pursuing professional activities.</p>				

**Table 2: Classification of activities in the Antarctic Treaty area**

Governmental activities		Non-governmental activities	
Activities of scientific research programs	Other governmental activities: e.g. inspections, state visits from members of a government etc.	Activities of tourists as well as visitors that do not represent professional activity.	Other non-governmental activities: e.g. film and advertising shootings by journalists or artists.

### 1.2.3 Types of Antarctic tourism

Antarctic tourism can be divided into different categories; a distinction can be drawn with regard to its geographic focus and its special quality. In addition, the various actors of tourist activities are to be differentiated.

#### 1.2.3.1 Locality of tourist activities

##### Seaborne tourism

Seaborne tourism in Antarctica can be further divided into three categories: Expedition cruises, cruise only and yacht-based Antarctic tourism.

##### Expedition cruises

Expedition cruises are the classic form of Antarctic tourism. Regular Antarctic tourism began in 1965/66 with expedition cruises:<sup>70</sup> Here vessels leave from ports outside of Antarctica towards destinations in Antarctica. The focal point of the expedition cruises was and is the easily accessible Antarctic Peninsula.<sup>71</sup> Expedition cruises, where tourists travel on a research vessel together with scientific personnel, are also possible.<sup>72</sup> In the Antarctic Treaty area, passengers are offered the possibility of making landings in small boats (so-called zodiacs) or also in helicopters. Overall, in the last years, a strong tendency towards individualization can be observed, since the vessels increasingly function as the starting point for numerous activities on land, for instance skiing, hiking, or overnight stays on land.<sup>73</sup> The so-called 'fly and cruise' trips, where passengers of an expedition cruise vessel are flown into Antarctica and only then embark, have been becoming more and more popular.

##### Cruise only

Cruise-only tourism, *i.e.* tourism without landings, represents a cheaper alternative to expedition cruises because larger vessels can be employed for this form of voyage than for expedition cruises.<sup>74</sup> The cruise ships employed here can carry up to 2,400 persons.<sup>75</sup> Cruise only tourism has only been carried out since

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<sup>70</sup> R. Headland 1994, 269, 275.

<sup>71</sup> New Zealand, ATCM XXXV (2012), 25.

<sup>72</sup> For example, the Russian vessel *Akademik Shokalskiy* carried both scientific personnel as well as tourists on board; for this see note. 23.

<sup>73</sup> For the last topic see ATCM XXXV (2012), WP 37. The website of the individual tourist operator Quark Expeditions also illustrates this, available at: <http://www.quarkexpeditions.com/en/antarctic#activities>.

<sup>74</sup> The obligation not to land with more than 500 passengers is irrelevant for this form of tourism, since no landings are made; for the limit of 500 persons see 3.1.2.1.

<sup>75</sup> For instance the *Celebrity Infinity* which can carry 2,449 passengers and navigated the Antarctic Treaty area in 2012/13; available at: <http://eies.ats.aq/Ats.IE/Reports/rptShipBasedByParty.aspx?det=Annual from 2012/2013 to 2013/2014&yearF=2012&yearT=2013&period=2>. However, there may have also been even bigger cruise-only vessels in the Antarctic Treaty area.

2000.<sup>76</sup> This type of Antarctic tourism significantly decreased for a short period in the 2011/2012 season due to the prohibition of heavy fuel.<sup>77</sup>

#### Yacht tourism

Yacht tourism, like expedition cruises, is one of the early forms of Antarctic tourism.<sup>78</sup> A yacht is defined as a vessel that carries less than 13 passengers.<sup>79</sup> The yacht voyage is an individual form of Antarctic tourism, since special routes and destinations can be arranged with the operator. Only few of the organizers of such voyages are members of IAATO. Further, cases of non-compliance occur most often here.<sup>80</sup>

### **Airborne tourism**

#### Overflights

Antarctic overflights – *i.e.* flights into the Antarctic Treaty area without landing – were an important form of tourism over the Antarctic continent in the 1970s. It is estimated that 44 overflights with circa 10,000 passengers in total were conducted between 1977 and 1980.<sup>81</sup> This changed after the accident at Mount Erebus in 1979 that resulted in the deaths of all those aboard the flight.<sup>82</sup> However, since the middle of the 1990s, tourist overflights of Antarctica have been offered again.<sup>83</sup> This is the cheapest option for an Antarctic voyage.<sup>84</sup>

#### Flights with landing (day trips)

Besides overflights, flights with landing in the Antarctic Treaty area are also offered; they involve a flight into the Antarctic Treaty area with a temporary landing including a stay of several hours, partly over-

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<sup>76</sup> A. Wright 2004, 43, 55.

<sup>77</sup> As a result, cruise-only tourism decreased, according to IAATO, by almost ten thousand passengers from 14,373 to 4,872, cf. ATCM XXXVI (2013), IP 103, 4. The prohibition especially affected vessels with more than 500 passengers; ATCM XXXV (2012), Final Report, para. 185. Cf. for this also K. Bastmeijer 2010, 131. For this see 3.2.3; cf. for the current numbers 2.2.4.

<sup>78</sup> Foreign & Commonwealth Office, Antarctic Yachting Guidelines, available at: <http://www.highlatitudes.com/antarctic-yachting-guidelines.pdf>. Cf. also ATCM XXXIV (2011), Final Report, 318, Resolution 3 (2011): “A ship is defined as a vessel which carries more than 12 passengers”.

<sup>79</sup> Regulation 2(f) Part A International Convention for the Safety of Life at Sea (SOLAS) of 1 November 1974 in the version modified by the protocol of 11 November 1988, entered into force 3 February 2000, for the Federal Republic of Germany (1184 UNTS 2; BGBl. II 1980, 525). This study refers to the last version of the consolidated edition of SOLAS that was published by the IMO; available at: <http://www.imo.org/Publications/Pages/JustPublished.aspx>; cf. for this 3.2.4.

<sup>80</sup> Cf. for the entire topic 1.2.3.3 as well as 2.2.3.2.

<sup>81</sup> N. Wace 1990, 327, 329 et seq. For a general overview, cf. T. Bauer 2007, 188.

<sup>82</sup> See for this F. Auburn 1989, 156 et seq.

<sup>83</sup> J. Splettstoesser 2000, 48.

<sup>84</sup> A. Averbuck/C. McCarthy 2012, 23. The ticket prices currently start at circa 1,200 Australian dollars; available at: <http://www.antarcticaflights.com.au/Prices>.



night stays are included. Such day trips are currently only being offered by the Chilean airline company Aerovías DAP.<sup>85</sup>

## Land-based tourism

Land-based tourism of Antarctica is the most expensive option for an Antarctic voyage. It is an umbrella term for a multitude of activities. Land-based tourism has not yet been defined by the Consultative States.<sup>86</sup> It only encompasses such tourist activities in the Antarctic Treaty area that take place on the Antarctic continent including the appertaining ice shelf as well as adjacent islands. This excludes activities on sea, on board of a vessel or an airplane. As a result, terminological difficulties ensue as far as the differentiation of land-based tourism from expedition cruises and flights with landings is concerned, since these also involve activities on the Antarctic mainland.

It is questionable whether there is a minimum time threshold from which one can speak of land-based tourism and where this threshold lies: IAATO considers an activity to be land-based tourism if a stay on the mainland is planned or actually lasts more than 36 hours.<sup>87</sup> This narrow definition of land-based tourism means that activities which last 24 hours or run overnight, like one-time camping on land, are excluded from land-based tourism<sup>88</sup> and will thereby neither be recorded as land-based tourism<sup>89</sup> nor be subject to the corresponding regulation for this kind of tourism. It is not surprising that this type of land-based tourism, if one assumes the 36 hour-threshold, only represents a minimal share of the tourism conducted by IAATO-members.<sup>90</sup> However, it must be considered that numerous individually organized land-based voyages in Antarctica, which are organized by non-IAATO-members, have taken place and still do.<sup>91</sup>

Against the 36 hour threshold several objections can be raised: the 36 hour threshold seems arbitrary and seems not founded on objective reasons. It is unclear why less time on land, especially 24 hours, should not be sufficient. Since the intensity of tourism is decisive, it seems plausible to designate all tourist activities, for which tourists have to stay overnight on the mainland, as land-based activities. If – for example due to an athletic competition or a tour – there is no overnight stay, then a 24 hour stay on land suffices to represent land-based tourism since here a special 'land use' is also present. Difficult questions concerning delineation can be avoided by the 24 hour threshold.

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<sup>85</sup> Available at: <http://www.aeroviasdap.cl/>.

<sup>86</sup> With respect to the prohibition of land-based tourism, cf. S. Vöneky/R. Wolfrum/J. Friedrich 2005, 735. This contribution was introduced as an Information Paper by the Federal Republic of Germany; see ATCM XXVIII (2005), IP 20. For more detail see 3.1.1.4.

<sup>87</sup> ATCM XXXII (2009), IP 101, 3 et seq.

<sup>88</sup> ATCM XXXII (2009), IP 101, 3.

<sup>89</sup> The IAATO-numbers on land-based tourism therefore do not include all overnight stays by tourists on the Antarctic continent.

<sup>90</sup> Thus in the 2012/2013 season, 354 tourists undertook land-based activities with IAATO-operators, cf. ATCM XXXVI (2013), IP 103, 6. This represents circa 1 % of the total Antarctic tourism recorded by IAATO. Altogether, according to IAATO-data, 34, 316 tourists were in Antarctica during the same time period; *ibid.*, 2.

<sup>91</sup> For instance privately organized Antarctic expeditions; cf. e.g. 'Marching for the Wounded', for which war veterans from four States organized a race to the South Pole for charity purposes, available at: <http://walkingwiththewounded.org.uk/southpole2013/>. Cf. for this 2.2.3.2.

## The special case of permanent and semi-permanent tourism infrastructure

The concept of permanent and semi-permanent infrastructure, which is especially connected with land-based tourism, has not yet been more closely defined.

Tourist operators increasingly employ 'semi-permanent' infrastructure. This involves the erection of tents at the beginning of the austral summer and their use throughout the entire season; in the winter, they are then disassembled and their components are either stored within the camp in Antarctica or flown out.<sup>92</sup> The Union Glacier Camp – *i.e.* the largest semi-permanent camp in Antarctica used by tourists – for instance is used by approximately 400 persons per season.<sup>93</sup> The maximum population of the camp is estimated at over 80 persons.<sup>94</sup> These semi-permanent camps are the starting points for tourist activities in the entire Antarctic Treaty area.

Permanent infrastructure for tourist activities is infrastructure that is constructed for use beyond one season<sup>95</sup> or factually exists for more than a year: Permanent infrastructure for tourists was or is available in some research stations<sup>96</sup> or in their immediate surroundings. The distinction between permanent and semi-permanent infrastructure cannot always be drawn precisely; it has to be kept in mind, in particular that even semi-permanent infrastructure is partly stored permanently within Antarctica.<sup>97</sup>

Thus, a tourist operator for land-based tourism near the Russian station Novolazarevskaya (Novo) uses a guest house that serves above all as a starting point for tourist trips, while scientists are also accommo-

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<sup>92</sup> Cf. for this for example the IEE Antarctic Logistics & Expeditions, available at:

[http://ats.aq/documents/EIA/01571enALE%20\\_%20IEE\\_4\\_13-14.pdf](http://ats.aq/documents/EIA/01571enALE%20_%20IEE_4_13-14.pdf), 54. Cf. for a similar concept also the method of 'White Dessert', available at: <http://www.white-desert.com/adventures/ bespoke/>. Several tents remain assembled for the entire year and are used when the camp is reopened in the summer, for this cf. the video recordings at: <http://blog.zeit.de/netzfilmblog/2014/12/08/welcome-to-union-glacier-dokumentation-antarktis/> (at minute 7:30).

<sup>93</sup> Antarctic Logistics & Expeditions Adventure Network International, Environmental Documentation Union Glacier, 2013 (January 2004 Update) IEE Submission to the US Environmental Protection agency, 34; 47; available at: [http://ats.aq/documents/EIA/01571enALE%20\\_%20IEE\\_4\\_13-14.pdf](http://ats.aq/documents/EIA/01571enALE%20_%20IEE_4_13-14.pdf). Photos of the camp that is only accessible by airplane are *inter alia* available at: M. Martin, Antarktisreise, Spiegel Online: <http://www.spiegel.de/reise/fernweh/fotograf-michael-martin-in-der-antarktis-a-881846.html> and at Adventure Network International (ANI) under: [http://ats.aq/documents/EIA/01571enALE%20\\_%20IEE\\_4\\_13-14.pdf](http://ats.aq/documents/EIA/01571enALE%20_%20IEE_4_13-14.pdf).

<sup>94</sup> Cf. for this ATCM XXXIV (2011), IP 87, 4.

<sup>95</sup> Vgl. K. Bastmeijer/M. Lamers/J. Harcha 2008, 86 f. IAATO for instance understands the term "permanent infrastructure to include: "[...] any structure or facility established in Antarctica for the duration of its useful or predicted working life that will require remedial actions to reinstate the original environmental state once the infrastructure has been removed. Examples include buildings, wharves and jetties, and graded runways on exposed ground", ATCM XXXII (2009), IP 101, 7.

<sup>96</sup> In research stations, the possibility of an overnight stay exists, see A. Averbuck/C. McCarthy 2012, 80. From 1982 – 1992 a guest house near the Chilean research station Teniente Rodolfe Marsh on King George Island was operated, cf. M. Lamers, Permanent Land Based Tourism in Antarctica, Graduate Certificate Report 2005/2006, 6; available at: <http://www.anta.canterbury.ac.nz/documents/GCAS%20electronic%20projects/Machiel%20Lamers%20Project.pdf>; see also R. Headland 1994, 269, 277.

<sup>97</sup> Cf. therefore as to the equal treatment legally of the EIA *de lege ferenda* at 4.3.1.2.

dated.<sup>98</sup> The tourism industry assures that there are in any case no endeavors to invest in major facilities like hotels.<sup>99</sup> This however precisely does not exclude infrastructure that constitutes less than major facilities. Permanent landing-facilities for vessels could for example be included.

### 1.2.3.2 Typology

In the following, a typology of the ever more diversifying tourist activities in the Antarctic Treaty area is developed.<sup>100</sup> In doing so, first the standard form of tourist activity in the Antarctic Treaty area is presented. Subsequently, the special forms of Antarctic tourism are considered.

#### Standard form

The majority of Antarctic tourism is conducted by ‘large’ tourism companies, especially cruise operators. These companies are generally organized within the IAATO. The risks of damages for the participants of such a voyage due to accidents or weather conditions are lower in comparison to other voyages to Antarctica, since the tourists are in the care of a professional team and the companies repeatedly offer Antarctic voyages.

#### Special forms

##### Adventure and extreme-sports tourism

A special case of the types of tourism in Antarctica is adventure and extreme-sports tourism, which includes mountain tours, Antarctic crossings, base jumping etc.<sup>101</sup> However, in general adventure tourism is related to land-based activities.<sup>102</sup> Also in this field professional operators exist; e.g. the ascent of Mount Vinson (highest mountain within Antarctica) or the semi-crossing of Antarctica is offered. Adventure and extreme-sports tourism differentiate themselves from regular Antarctic tourism by the elevated risk for the participants themselves, who seek new and exciting experiences in especially remote areas of Antarctica and thus do not undertake the usual activities. Often, this involves extreme sports.<sup>103</sup>

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<sup>98</sup> An employee of The Antarctic Company assured the authors that, next to tourists, scientific personnel that are waiting for connecting flights are also housed in this complex; for the guest house ‘Oasis’ see the website of The Antarctic Company, available at: [www.antarctic-company.info/qml.html](http://www.antarctic-company.info/qml.html); for this see also the website of the travel guide Lonely Planet, available at: <http://www.lonelyplanet.com/antarctica/transport/getting-there-away>.

<sup>99</sup> Cf. for this ATCM XXXI (2008), IP 84, 4: “Members are clear, however, that none is currently interested in promoting or funding the construction of major facilities such as ‘hotel’ accommodation; not only would this conflict with IAATO-Bylaws that ensure all activities have a less than minor or transitory impact but there is the potential to contradict the very ‘wilderness and aesthetic values’ that are a key element in visitors’ desire to see Antarctica”.

<sup>100</sup> Cf. for diversification 2.2.1.

<sup>101</sup> Cf. ATCM XXXVII (2014), IP 78, 3 et seq.; Cf. as to the whole issue ATCM XXXVII (2014), SP 9.

<sup>102</sup> ATME (2004), WP 8, 1.

<sup>103</sup> An extreme sport is a sport that is connected with the highest physical demands or with special dangers (“mit höchster körperlicher Beanspruchung oder mit besonderen Gefahren”) (translations by the authors), cf. Duden 2013, 401.

The main concern of the States parties to the Antarctic Treaty in connection with this form of tourism is not its threat to the Antarctic environment, but the safety of the participants.<sup>104</sup> However, accidents and the necessary rescue actions indirectly lead to a higher risk of environmental damages. The higher risk of accidents and the lack of a possibility for self-help in Antarctica in case of an incident also potentially affect the work of Antarctic research stations.<sup>105</sup> In cases of emergencies, they must help with the search and rescue of tourist expeditions. The Consultative States have concluded that this risk must be taken into account during national authorization procedures in the future.<sup>106</sup> The definition of adventure tourism has not yet been conclusively agreed upon. One Consultative State, the United Kingdom, proposed the following definition:

*“Adventure tourism embraces those activities undertaken in Antarctica which may be high risk, set highly challenging goals (e.g. to be the first to achieve a particular milestone), and are conducted by individuals or expeditions without the supervision or support in the field of an umbrella organisation (whether a national operator or recognized tourism provider).”<sup>107</sup>*

In contrast, IAATO proposes a broader definition:

*“Adventure tourism involves activities where there is a perceived (and possibly actual) risk, which potentially requires specialized skills and physical exertion.”<sup>108</sup>*

The advantage of the broader definition is that the risk for the participants is a decisive characteristic of adventure tourism and correspondingly special requirements for their equipment and health are stipulated. However, the answer to whether the activity takes place within an organized framework or is conducted individually is also significant in practice, since the risks for the participants is potentially higher in the latter case than in the former.<sup>109</sup>

Therefore it seems that the following definition, which combines both elements, is convincing: Adventure tourism involves activities, which involve a special risk and require special physical preconditions and skills; these are generally conducted by individuals or expedition groups that are not affiliated with a tourism operator.

### Mass events

More and more, tourist activities are also taking place in the form of mass-events. They include for instance marathon events. The biggest marathon event in Antarctica, the Antarctica Marathon, had 129 participants in 2014.<sup>110</sup> An example for such mass events is also a concert by ‘Metallica’ in connection with an advertising campaign of a soft drink company on 8 December 2013.<sup>111</sup>

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<sup>104</sup> ATCM XXXVII (2014), SP 9, 11.

<sup>105</sup> ATME (2004), WP 8, 1.

<sup>106</sup> ATCM XXXVII (2014), Resolution 6.

<sup>107</sup> ATME (2004), WP 8, 3.

<sup>108</sup> ATCM XXXVII (2014), IP 78, 3.

<sup>109</sup> With respect to individual tourist, cf. 1.2.3.3.

<sup>110</sup> Available at: <http://www.marathonontours.com/index.cfm/page/2014-Antarctica-Marathon-Results/pid/14483>.

<sup>111</sup> Available at: <http://www.coca-colacompany.com/coca-cola-music/cool-concert-coke-zero-presents-metallicas-first-ever-show-in-antarctica>.

### Charity-tourism

In addition, tourist activities in Antarctica are increasingly employed to raise media awareness for important topics and charities. The participants of a charity expedition market their 'adventure' in order to raise awareness for a certain cause and thus collect donations for this cause. In December of 2013, for example, a group of war veterans from the United States, the United Kingdom, and Australia went to the Antarctic Treaty area in order to collect money for injured soldiers.<sup>112</sup> Similarly, the 'Pink Polar Expedition' led by Australia attempted to collect donations for a campaign against breast cancer in 2013/2014.<sup>113</sup>

### **1.2.3.3 Actors of tourist and non-governmental activities**

#### **Participants of commercially organized tourist voyages**

Most Antarctic tourists participate in commercially organized voyages. The participants of such a voyage are clients of a tourist operator which regularly offers voyages to Antarctica. This tourist operator takes care of the necessary national authorization or notification as well as insurance and all other administrative questions. Generally, the operator, at least as far as expedition cruises are concerned, is an IAATO-member. The individual tourist goes ashore with a guide, who ensures that the applicable rules are observed.

#### **Individual tourists**

Individual tourists enter the Antarctic Treaty area on their own initiative. Thus, they have to take care themselves of the national authorization or notification. Individual tourists are not organized within the IAATO. The number of such individual tourists is small when compared to participants of organized voyages however they raise the biggest concerns, particularly with respect to the observation of applicable rules in the Antarctic Treaty area and the safety of the participants.<sup>114</sup> Some individual tourists do not prepare sufficiently for the extreme conditions in Antarctica and thereby expose their health or their life to high risks.<sup>115</sup>

#### **Members of national scientific programs**

Members of national scientific programs can also pursue tourist activities in their free time if they undertake voyages in Antarctica outside of their research activity. These activities are in general organized individually and spontaneously and not conducted by tourist operators.

#### **Journalists**

Media representatives are not tourists in the scope of the professional activity. In some cases, media representatives are embedded in national scientific programs and work on research vessels or at national research stations;<sup>116</sup> in many cases however, they take part in tourist voyages and book a spot on cruise

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<sup>112</sup> Available at: <http://walkingwiththewounded.org.uk/southpole2013/the-challenge/the-race/>.

<sup>113</sup> Available at: <http://mcgrathfoundation.gofundraise.com.au/page/pinkpolar>.

<sup>114</sup> Cf. for this already ATCM XXVI (2003), IP 96, 3.

<sup>115</sup> Cf. especially 2.2.2 with further references.

<sup>116</sup> Cf. e.g. I. Arndt/C.-P. Lieckfeld 2005.

vessels. If media representatives undertake tourist voyages in order to document them, this constitutes a non-governmental activity in the Antarctic Treaty area (Art. 3 Abs. 4 USP), which in general does not distinguish itself from a tourist activity.

## 1.2.4 Summary

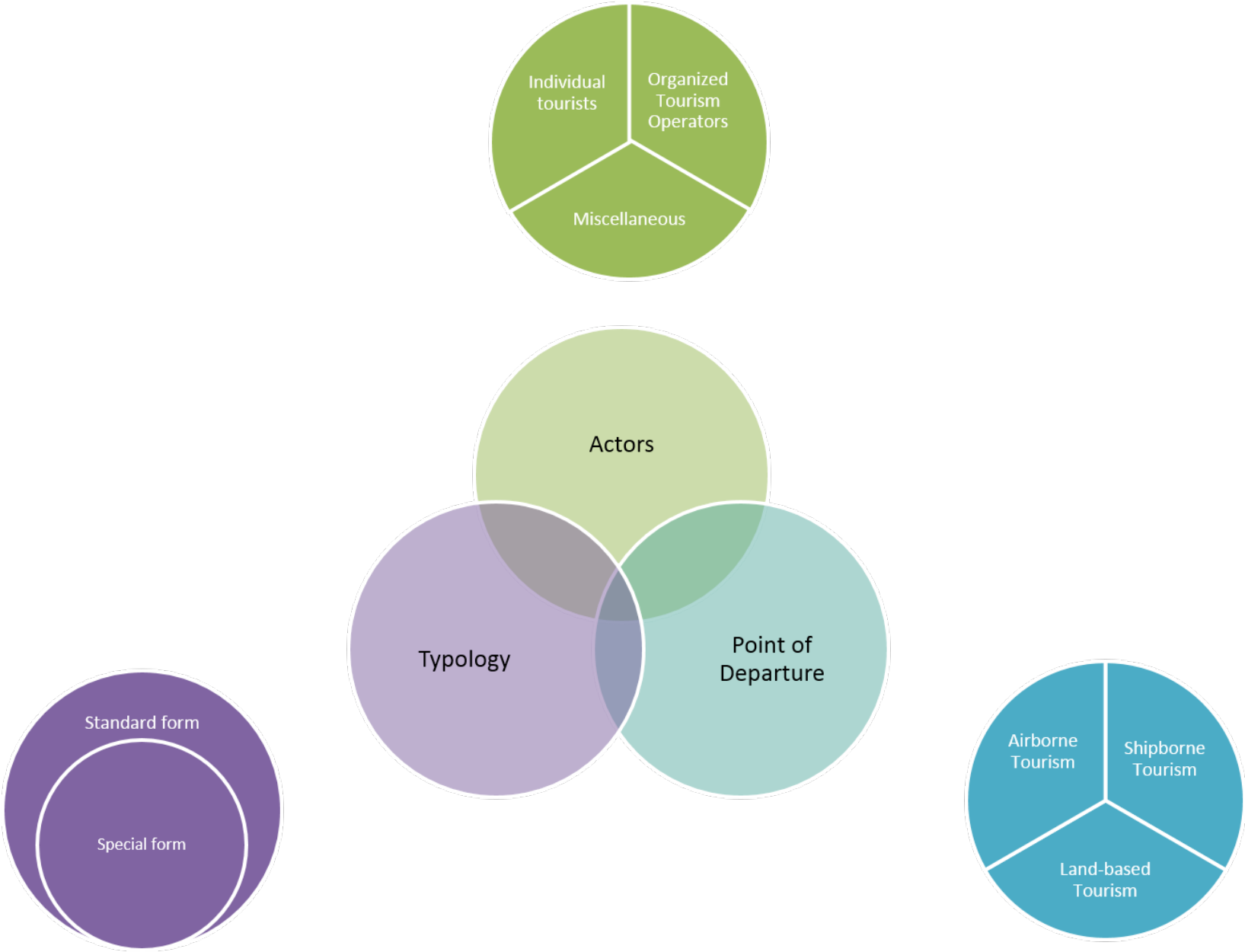
Table 3.1: Types of Antarctic tourism (matrix)

Point of departure of tourist activities			Typology of tourist activities			Actors of tourist activities
<i>Seaborne tourism</i>			<i>Standard form</i>			<i>Commercially organized tourist operators</i> Tourist operators take care of the necessary national authorizations/notifications for the voyage and - in the standard case of land-based tourism - are members of IAATO.
<u>Expedition cruises</u> A vessel with up to 500 passengers on board that sails to landing sites in the Antarctic Treaty area; tourists have the option to go ashore for short periods of time.	<u>Cruise-only tourism</u> A vessel sails through the Antarctic Treaty area without landing; such vessels are allowed to have more than 500 passengers on board.	<u>Yacht tourism</u> A vessel with less than 13 passengers on board; there is the option to arrange individual landing spots with the crew.	Tourist activities for pleasure within commercially organized groups.			
<i>Airborne tourism</i>			<i>Special forms</i>			<i>Individual tourists</i> Voyages 'on one's own initiative' into the Antarctic Treaty area; often one-time; the voyagers must arrange for a national authorization / notification of the competent State party. Usually, they are not members of IAATO.
<u>Overflights</u> The Antarctic Treaty area is only flown over.	<u>Day trips</u> A flight to the Antarctic Treaty area with landing, but without overnight stay.	<u>Adventure tourism / Extreme-sports tourism</u> Especially risky forms of Antarctic tourism; adventure tourism often takes place individually or outside of organized groups. Examples: crossing of Antarctica,, bungee jumping	<u>Mass events</u> Events with large groups of persons for special purposes. Examples: marathons, concerts.	<u>Charity-tourism</u> Exceptional activities in Antarctica in order to collect donations for a charitable project. Examples: Voyage to the south pole in order to collect donations for veterans.		
<i>Land-based tourism</i> Stays on the Antarctic mainland (including the islands in the Antarctic Treaty area) of a planned or actual length of more than 24 hours. In general, tourists are housed for several days in semi-permanent camps - i.e. camps that are disassembled at the end of the season.						<i>Miscellaneous</i> Members of national scientific programs and other visitors can pursue tourist activities in their free time if they, without working, visit certain places in Antarctica or engage in sporting activities.
<i>Special case: Permanent tourism infrastructure</i> Infrastructure employed especially for tourist purposes that is designated to be used or is actually used for more than one season.						

Example: a hotel or a permanent mooring.		
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Table 3.2: Types of Antarctic tourism (diagram)



## 2 Development of Antarctic tourism

### 2.1 Data collection

In the following, the factual development of Antarctic tourism in the last ten years shall be retraced. In addition, an outlook on the future developments of Antarctic tourism will be made.

#### 2.1.1 Objective

The objective of this part of the study is to obtain a collection of the available data on Antarctic tourism that is as comprehensive as possible. In contrast to other studies on Antarctic tourism, which *grosso modo* rely on data gathered by the IAATO,<sup>117</sup> this study also gathered and utilized data from other sources. This shall both, albeit within a limited scope, allow to check the IAATO-data as well as the tourism conducted outside of the IAATO-framework – particularly the less frequent types of tourism like yacht tourism and land-based tourism.

#### 2.1.2 Method

The data was mainly collected from sources that were not provided by the IAATO: First, official information from national and international institutions was used; second the ‘tourism infrastructure’ – *i.e.* the destinations and starting points of Antarctic voyages – were contacted as a source of information, and third, the generally-accessible sources of information, especially also internet sources, were evaluated.

#### 2.1.3 Data sources

##### 2.1.3.1 Electronic Information Exchange System (EIES)

The Electronic Information Exchange System (EIES) is a system for the information exchange of Antarctic activities of the States parties to the Antarctic Treaty.<sup>118</sup> It can be accessed online. For tourist activities, the following is recorded: name; website; nationality of the tourist operator; IAATO-membership; flag of the vessel; activities; maximum number of tourists/crew. However, the information of the EIES-database merely encompasses the years from 2010 onwards. Moreover, the information in the EIES is incomplete.<sup>119</sup> This is the case on the one hand because the States parties did not always completely fulfill their reporting requirements;<sup>120</sup> on the other hand, States do not have to pass on all of the information through the EIES: Until 2013, the exact activities during the voyage and the number of tourists did not

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<sup>117</sup> New Zealand, ATCM XXXV (2012), 12.

<sup>118</sup> For this see ATCM XXXVI (2013), Decision 6; ATCM XXXV (2012), Decision 4; ATCM XXXI (2008), Decision 5; ATCM XXVIII (2005), Decision 10.

<sup>119</sup> With respect to criticism already, New Zealand, ATCM XXXV (2012), 12 et seq.

<sup>120</sup> The forwarding of EIES-data has only been an obligation under international law since 2012; ATCM XXXV (2012), Decision 4, para. 1: “The Representatives decide: [...] that Parties use the Electronic Information Exchange System to exchange information in accordance with the Antarctic Treaty and the Protocol on Environmental Protection to the Antarctic Treaty and its annexes”.

have to be forwarded through the EIES.<sup>121</sup> Nevertheless, access to the EIES-database proves to be a good possibility to gain an insight into the forms of Antarctic tourism, which are not organized by tourist operators that are IAATO-members.

### **2.1.3.2 Infrastructure for Antarctic tourism**

For the collection of data for this study, the infrastructure of Antarctic tourism is thus of great importance. Antarctica can only be reached by vessel or airplane and tourists must initially go through a port or an airport outside of Antarctica in order to travel to Antarctica. These places constitute the starting points of every Antarctic voyage.<sup>122</sup>

Further, there are also destinations in Antarctica for tourists that possess a certain degree of infrastructure. One of these is, for instance, Port Lockroy, which lies on Goudier Island and is run by the United Kingdom Antarctic Heritage Trust (UKAHT). However, research stations, some of which tolerate or even promote Antarctic tourism, also fall into this category. The collection of data from this tourism infrastructure allows this study to not only gather data outside of the IAATO-framework, but also – at least potentially – record tourist activities of non-party States or activities without an authorization or notification from a State party.

### **Operators of starting and destination points of Antarctic voyages**

#### Airport operators

This study attempted to contact all operators of the airports that are relevant for Antarctic tourism in order to gather data on tourist voyages. The two important airports for Antarctic tourism outside of Antarctica are Punta Arenas/Chile and Cape Town/South Africa. Furthermore, the airport of Christchurch/New Zealand was also contacted due to its geographic proximity to the Antarctic Treaty area. However, there was no response from Punta Arenas or Cape Town to the various inquiries. The airport in Christchurch stated that only scientific flights under the leadership of the US Antarctic program were conducted from there.

#### Flight operators and operators of land-based tourism

15 flight and land-based operators were asked in writing for their estimation and knowledge of Antarctic tourism.<sup>123</sup> No comprehensive responses were received; conversations were held with two operators.<sup>124</sup> They offered a good insight into the structure of land-based tourism.

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<sup>121</sup> Cf. ATCM XXXVI (2013), Decision 6, para. 1.

<sup>122</sup> In order to receive information from the starting- and destination points of Antarctic voyages, the relevant ports, airports, and research stations and their operators were determined. Subsequently, these operators were asked to provide their information on Antarctic tourism for the time period from 2003 to 2013 by email and, in the absence of a response, by post.

<sup>123</sup> Club Deportivo Naval de Yates Micalvi (Micalvi Yacht Club), Discover the World, Ultrayachts, Antarctic Travels, Arctic Trucks, Polar Explorers/Northwest Passage, Polar Cruises, Adventure Associates, White Desert, Adventure Network International, The Antarctic Company (TAC), Southern Explorations, Antarctic Logistics Centre International (ALCI), DAP Antarctica and Steppes Travel.

<sup>124</sup> These were The Antarctic Company and Polar Explorers on 17 July 2014.

### Port operators

Nine port operators of ports that are relevant for Antarctic tourism were contacted in writing by email and post;<sup>125</sup> four of these responded (Bluff Harbour, Port Stanley, Hobart, and Ushuaia). The operators of Port Stanley and Hobart responded in detail and provided their data. While vessels merely sporadically set out in the direction of Antarctica from Hobart, Port Stanley is often frequented.<sup>126</sup> Bluff Harbour informed the authors that, with the exception of a cruise ship, no Antarctic tourism takes place and Ushuaia only sent general brochure of information concerning the development of cruise-ship tourism within Ushuaia.

### National foundations

Three national foundations, which maintain cultural goods in Antarctica, were also contacted by post and email: The United Kingdom Antarctic Heritage Fund (UKAHT), the New Zealand Antarctic Heritage Fund (NZAHT) and the Australian Mawson's Hut Foundation.<sup>127</sup> The UKAHT provided comprehensive information from Port Lockroy, based on which the seaborne tourism in Port Lockroy from 2003 to 2013 (with the exception of the 2006/2007) can be retraced.<sup>128</sup> The NZAHT stated that it does not collect any information on Antarctic tourism. Further responses were not received.

### National research stations

Furthermore, the institutions responsible for the research stations were contacted. All national scientific programs of the 29 Consultative States<sup>129</sup> were contacted. Twelve States responded, eleven of which provided information.<sup>130</sup> Most States stated that they do not receive tourists in their stations. Only two research stations, the Polish Arctowski Station as well as the Ukrainian Vernadsky Station, are often visited by tourists according to their own statements.<sup>131</sup> The research stations often have an important function for Antarctic tourism. They serve as destinations for expedition cruises.<sup>132</sup> In addition, they play a major role in land-based tourism. The organized land-based tourism in semi-permanent camps seems – with

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<sup>125</sup> Port of Ushuaia, Port Stanley, Bluff Harbour, Puerto Williams, Puerto Madryn, Porte de la Réunion, Port of Hobart und Mar del Plata.

<sup>126</sup> According to our information, 24 vessels used by tourists arrived in Hobart since 2007, while circa 100 vessels arrived in Stanley on their way to Antarctica or on return from Antarctica.

<sup>127</sup> Available at: <http://www.ukaht.org/>; <http://www.nzaht.org/> and <http://www.mawsons-huts.org.au/>.

<sup>128</sup> The year 2006 was not recorded by Port Lockroy.

<sup>129</sup> Further at note 8.

<sup>130</sup> These are Australia, China, Ecuador, France, India, New Zealand, Norway, Poland, South Africa, Ukraine, and the United Kingdom.

<sup>131</sup> The Chinese Great Wall Station is also – to a limited extent – visited by tourists; for this see also a study by COM-NAP, according to which 13 Consultative States stated that their research stations were regularly visited by tourists, ATCM XXV (2002), IP 27, paras. 6 et seq.; 8.

<sup>132</sup> See especially A. Fedchuk 2013.

one exception<sup>133</sup> – to take place in the immediate surroundings of research stations. However, up to now States deny a close relationship between Antarctic tourism and the research stations,<sup>134</sup> although it is reported that even States are increasingly using the infrastructure of tourism companies, particularly with respect to vessels and airplanes.<sup>135</sup> After the inspection of several research stations, a joint team, consisting of three Consultative States concluded in their 2013 report the following:

*“Tourism is a growing feature of life in Antarctica. The inspection teams were surprised by how many of the bases they inspected welcomed or encouraged tourists. Some facilities were receiving several thousand visitors a year, concentrated in the summer months. Although only a minority of bases expressed any concern about the impact of tourists, the inspectors generally found an inverse correlation between the quality of science and the enthusiasm for receiving tourists.”*<sup>136</sup>

### 2.1.3.3 National notification and authorization authorities

All of the national notification and authorization authorities were also asked to forward their Post Visit Reports (PVR) for Antarctic tourism.<sup>137</sup> Subsequent to every tourist expedition into the Antarctic Treaty area, a PVR, which contains information on the number of travelers and a precise listing of the conducted activities, is to be sent to the competent national authority. If one would dispose of an entirety of the PVRs - assuming that the individual States parties properly collect these reports – a complete account of Antarctic tourism could be formed. All tourist activities in Antarctica are recorded in PVRs provided that these originate from States parties to the Antarctic Treaty or have passed through a national authorization or notification procedure.

This data is a true asset compared the EIES-data, since, as already mentioned, the States did not have to forward all information in the Post Visit Reports to the EIES until 2013.<sup>138</sup> However, currently only six

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<sup>133</sup> Cf. the Union Glacier Camp of Adventure Network International; available at: <http://www.adventure-network.com/union-glacier-camp>. See note 93 with respect to these camps. The camps of the Antarctic Company and White Desert are in contrast located near the Russian Novolazarevskaya Station; cf. for this <http://www.lonelyplanet.com/antarctica/transport/getting-there-away>. The company Daero Vidas DAP houses its tourists at the Chilean Frei Station.

<sup>134</sup> Cf. ATCM XXXIV (2011), IP 87, 4: “None of the Parties reported providing any support to tourism other than free basic hospitality, and most respondents explicitly opposed the notion of Parties being involved in tourism operations”.

<sup>135</sup> For this cf. A. Fedchuk 2013, 289.

<sup>136</sup> Antarctic Treaty Inspections Programme, Report of Antarctic Treaty Inspections undertaken jointly by the United Kingdom, the Netherlands and Spain in accordance with Article VII of the Antarctic Treaty and Article 14 of the Environmental Protocol, 2013, 14 et seq.; available at: [http://ats.aq/documents/ATCM36/att/atcm36\\_att108\\_e.pdf](http://ats.aq/documents/ATCM36/att/atcm36_att108_e.pdf).

<sup>137</sup> These are reports that tourist operators send to the States parties after the conclusion of their voyage. Since 1997, ATCM soft law recommends that the States Parties to the Antarctic Treaty collect this information, cf. ATCM XXI (1997), Resolution 3; see also ATCM XXVIII (2005), Resolution 6: “The Parties [...] Recommend that [a] standard form be used for Advance Notifications and Post-Visit Reporting on tourism and non-governmental activities in Antarctica [...]”. Cf. 3.1.2.

<sup>138</sup> Cf. note 92.

States parties (Czech Republic, France, Germany, Monaco, South Africa, and Spain) responded to our inquiry for data from the PVRs. None of the States provided PVRs.<sup>139</sup>

#### 2.1.3.4 Other sources

The following accessible sources were consulted:

- ATCM-documents (Working and Information Papers (WP, IP) as well as reports from expeditions);
- scientific articles;
- IAATO-statistics (tourism overviews and summaries); and
- various internet sources (*inter alia* Google and social networks).

Further, ‘Antarctica New Zealand’ and the German Federal Environmental Agency (UBA) provided data sets.<sup>140</sup>

### 2.1.4 Summary: Overview of data and analysis of gaps

Through the conducted collection and analysis of data on the Antarctic tourism in the last ten years, important insights into the areas of Antarctic tourism, which have been investigated less up until now, were gained. Particularly, the origin of 227 yachts, which sailed in the Antarctic in the time period from 1996 to 2013, was identified. Further, a list of all known tourist operators was constructed on the basis of the collected information. These lists can be further used by the Federal Environment Agency or the States parties in the future.

The accessible data is organized as follows (appendix II):<sup>141</sup>

1. Indications of cases of non-compliance
2. Tourist accidents and incidents in the Antarctic Treaty area
3. Diversification of Antarctic tourism and other non-governmental activities
4. Overview of IAATO-data

In conclusion, it must be stated that a comprehensive overview of Antarctic tourism in the last ten years could not be gained from the gathered, IAATO-independent data. The reason for this is that most of the inquiries to the competent authorities were not answered. Some States seem to not collect the post visit reports.<sup>142</sup> The data collection of the States parties contains large gaps. This especially applies to the information that is provided over the EIES. This is even more remarkable considering that IAATO itself also only collects its data on the basis of the post visit reports that were elaborated on the ATCM-level. In con-

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<sup>139</sup> As reasons, it was stated that no data is collected or that the forwarding of data is not allowed due to reasons of data privacy laws.

<sup>140</sup> With respect to the Federal Environmental Agency, it is the results of an earlier study on yacht tourism; New Zealand provided the data sets of the study on Antarctic tourism from 2012; for this see note 3.

<sup>141</sup> See Annex II 9.

<sup>142</sup> Accordingly, one inquiry concerning the forwarding of this information was rejected by a Consultative State, while indicating that the collection of these documents seemed by a State party seemed unnecessary, since this would be done by IAATO (email from April 11, 2014).

trast to the Consultative States, IAATO however collects these centrally. Today, a comprehensive overview on Antarctic tourism by an independent source cannot be gained; IAATO has a factual 'monopoly' on data on Antarctic tourism. This data basically cannot be verified by the Consultative States. Additionally, the data provided for by IAATO is not comprehensive. Forms of tourism with a minor proportion of IAATO-members cannot be represented correctly.

## 2.2 Changes in Antarctic tourism

### 2.2.1 Extent and form

Today, a large part of the Antarctic tourists come from a few western industrial nations. New markets in other States, like in Russia, or in emerging markets, like large parts of Asia, have hardly been tapped yet, even if the portion of tourists from these States is clearly increasing. 70 % of Antarctic tourists are based in the following industrial States: Australia, Germany, France, Switzerland, the United Kingdom, and the United States.<sup>143</sup>

Quantitatively, Antarctic tourism, according to IAATO information, has not yet reached its peak of more than the 46,000 tourists attained in 2007 again.<sup>144</sup> In the 2013/2014 season, the number of Antarctic tourists attained circa 37,400 a year before it was at 34,300.<sup>145</sup> However, this shows a clear increase in the number of tourists in comparison with the 2011/2012 season. In that season, the tourist numbers sank to circa 26,500<sup>146</sup> after the entry into force of the prohibition on heavy fuel.<sup>147</sup>

With respect to the quality of Antarctic tourism, it is well-documented that the number of tourist activities offered has been increasing for years and that these activities continue to diversify.

The requirements for post visit reports by now comprise 23 different categories into which the tourist activities in Antarctica can be divided.<sup>148</sup> These categories were further supplemented by an ATCM working group.<sup>149</sup> This study has identified activities that neither appeared in the post visit reports to date nor had been identified by the working group; ten further hitherto unknown activities were added. These are: concerts, fashion shows, crickets, football (soccer), tricycling, stand up paddling, geocaching, management workshops, Google Street View, and drone flights.

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<sup>143</sup> For this, see the IAATO-statistic available at:

[http://iaato.org/documents/10157/680446/touristsbynationality\\_total.pdf/2f459c1b-339b-4ca6-a3ea-0c5b85071847](http://iaato.org/documents/10157/680446/touristsbynationality_total.pdf/2f459c1b-339b-4ca6-a3ea-0c5b85071847).

<sup>144</sup> See New Zealand, ATCM XXXV (2012).

<sup>145</sup> The numbers for 2013/2014 are available at:

[http://iaato.org/documents/10157/680446/touristsbynationality\\_landed.pdf/4f0fa660-47e1-4843-a0e2-96ffeb7c41ed](http://iaato.org/documents/10157/680446/touristsbynationality_landed.pdf/4f0fa660-47e1-4843-a0e2-96ffeb7c41ed);

the numbers for 2012/2013 are available at:

[http://iaato.org/documents/10157/346545/touristsbynationality\\_total.pdf/76d7afdf-0f09-4ad2-8146-ccb79d918f](http://iaato.org/documents/10157/346545/touristsbynationality_total.pdf/76d7afdf-0f09-4ad2-8146-ccb79d918f).

<sup>146</sup> See 3.2.3.

<sup>147</sup> Available at: [http://iaato.org/documents/10157/91866/touristsbynationality\\_total.pdf](http://iaato.org/documents/10157/91866/touristsbynationality_total.pdf).

<sup>148</sup> ATCM XXXVI (2013), WP 33, 4. This includes kayaking, surfing, and marathons.

<sup>149</sup> ATCM XXXVI (2013), WP 47, 12 et seq. In connection with this, New Zealand noted that 13 activities are not contained in the categories of the post visit reports, cf. ATCM XXXVI (2013), Final Report, para. 227.

**Table 4: Diversification of Antarctic tourism and other non-governmental activities<sup>150</sup>**

Category	Activity
Art and music	Works of art; concerts
Education	School and university trips: 'Cool classes' project, management workshops
Media coverage and advertising events	Films; fashion shows; photo shoots; promotion of celebrities
Sports activities	Kayaking; surfing; marathons; mountain climbing; base-jumping; skydiving; paragliding; skiing; snowboarding; long-distance swimming; bicycle tours; heliskiing; triathlon; cricket; tricycle-expeditions; football (soccer); snorkeling; diving; snow hiking; sledding; use of motorized vehicles (motorcycles, trucks, etc.); stand up paddling
Other activities	Camping; helicopter flights; geocaching; Google Street View; drone flights; sales of souvenirs; religious activities

In summary, it can be stated that hardly any athletic activity is not conducted in Antarctica. The trend towards diversification can also be observed for special events, like *e.g.* concerts or fashion shows, which signify a further commercialization of Antarctica. A tendency away from the classic Antarctic expedition towards a 'special' Antarctic experience with additional factors of entertainment is emerging. Antarctica thereby serves as the setting for fundraising events and is employed for advertising campaigns – for instance by a soft drink company.<sup>151</sup> Mass events, like marathons, that take place, raise special problems with respect to the protection of the environment – this concerns *e.g.* the disturbance of the Antarctic fauna; furthermore, they can have an especially disturbing effect on the activities of research stations.<sup>152</sup> Increasing risks of accidents can also be observed for several forms of tourism. This applies to activities like scuba diving.<sup>153</sup> However, the growing risk of accidents generally applies to adventure and extreme-sports tourism, like climbing, base-jumping, or snow kiting, and is particularly present if these types of tourism are conducted individually and outside of an organized framework.<sup>154</sup>

### 2.2.2 Accidents and cases of non-compliance

As with all activities in the Antarctic Treaty area, tourism in Antarctica also leads to accidents. According to the data at hand, an increase in accidents however could not be observed in the last ten years, with

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<sup>150</sup> A detailed table of the various activities is found in appendix II; cf. note 140.

<sup>151</sup> Available at: <http://www.coca-colacompany.com/coca-cola-music/cool-concert-coke-zero-presents-metallicas-first-ever-show-in-antarctica>.

<sup>152</sup> ATCM XXXII (2009), WP 54, 3.

<sup>153</sup> Cf. for diving in Antarctic waters, M. Lamers/H. Gelter 2012, 282 with further references.

<sup>154</sup> See C. Murray/J. Jabour 2004, 313 et seq.



the exception of the increasing risk of accidents mentioned above for several forms of extreme forms of tourism.

Indications for non-compliance with rules for the protection of the Antarctic environment by tourists can be observed. Even if the following explanations refer to individual cases<sup>155</sup> and do not allow any general conclusions, two constellations can be emphasized:

First, the prohibition of damaging the Antarctic fauna, which was concretized by ATCM-measures, is not universally observed. Cases are documented in which tourists do not observe the minimal safety distance to wild animals of at least five meters<sup>156</sup> which is a compulsory regulation.<sup>157</sup>

Second, cases of Antarctic voyages without national authorization did occur. For instance, a French yacht sailed in the Antarctic Treaty area without authorization; those on board vandalized the Wordie House historic site.<sup>158</sup> In addition, the voyages of the Norwegian Jarle Andhoy must be mentioned. He traveled in the Antarctic Treaty area without authorization in 2011 with the Norwegian yacht *Berserk* and in 2012 with the Russian yacht *Nilaya*.<sup>159</sup> During the *Berserk*-expedition, three crew members died. In 2012, Jarle Andhoy returned to the Antarctic Treaty area with the Russian yacht *Nilaya* in order to search for the remains of the *Berserk*; the Norwegian authorities had not authorized this expedition, instead asking Jarle Andhoy to not conduct his expedition. The captain of the French yacht was, sentenced in 2014 by the competent French court to pay a fine.<sup>160</sup> Recently, a voyage of the German yacht *SV Infinity* to the Ross Sea without authorization became public; here there also seems to be little awareness of wrongdoing.<sup>161</sup>

## 2.2.3 Tourist operators

### 2.2.3.1 Overview

If one looks at the operators that conduct voyages to the Antarctic Treaty area, overall two statements can be made: First, all of the known tourist operators are located in a States party to the Antarctic Treaty

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<sup>155</sup> Upon request, multiple Consultative States affirmed that they were not aware of any cases of non-compliance by tourists in the Antarctic Treaty area. Only France mentioned the already known incident at Wordie House; for this cf. note 9.

<sup>156</sup> See ATCM XXXIV (2011), Resolution 3; further at 3.1.2.

<sup>157</sup> The feeling of wrongdoing by the offender seems low, since pictures that suggest violations are voluntarily shared online among others, the following pictures illustrate this: [http://www.aqua-firma.co.uk/experiences/Polar\\_Expeditions/Antarctica/Penguin\\_Explorer\\_Antarctic\\_Peninsula\\_expedition\\_cruise\\_wildlife\\_photography\\_voyages\\_penguin\\_Antarctica\\_birdwatching\\_expert\\_rspb\\_holiday](http://www.aqua-firma.co.uk/experiences/Polar_Expeditions/Antarctica/Penguin_Explorer_Antarctic_Peninsula_expedition_cruise_wildlife_photography_voyages_penguin_Antarctica_birdwatching_expert_rspb_holiday); <http://www.wimp.com/sealcuddle/>; [http://upload.wikimedia.org/wikipedia/commons/2/2d/Aptenodytes\\_forsteri\\_-Snow\\_Hill\\_Island,\\_Antarctica\\_-\\_juvenile\\_with\\_people-8.jpg](http://upload.wikimedia.org/wikipedia/commons/2/2d/Aptenodytes_forsteri_-Snow_Hill_Island,_Antarctica_-_juvenile_with_people-8.jpg).

<sup>158</sup> The yacht *L'Ésprit d'Équipe*, cf. ATCM XXXIII (2010), WP 25; ATCM XXXVII (2014), IP 16.

<sup>159</sup> See for this ATCM XXXIV (2011), IP 18; ATCM XXXIV (2011), IP 75; ATCM XXXV (2012), IP 81.

<sup>160</sup> Both, the judgment of the Tribunal d'Instance de Paris from 6 February 2014 as well as the judgment of the Nord Troms Regional Court from 23 June 2014 are available to the authors. The captain of the *L'Ésprit d'Équipe* was sentenced to pay 10,000 Euro, Jarle Andhoy to 45,000 NOK (ca. 5,100 Euro).

<sup>161</sup> Cf. ATCM XXXVII (2014), IP 48.

and the Environmental Protocol. Second, however, circa one third of the yachts and vessels sail under the flag of third State, *i.e.* of States that are not party to the Antarctic Treaty.<sup>162</sup> Yet, this is without significance for the applicability of the rules of the Antarctic Treaty system to such voyages, since these activities are subject to national authorization procedures anyway. This is true because the applicability of such procedures can be affirmed in cases in which they were planned in the territory of a State party.<sup>163</sup>

### 2.2.3.2 Non-IAATO-members

On the basis of the data at hand, it is questionable to what extent the IAATO, whose members are primarily cruise tourism operators, represents the entirety of the active tourist operators in Antarctica. This is of decisive significance for the question of whether an effective regulation of Antarctic tourism – through international law or private norms – exists. For instance, the IAATO-regulations on tourism in Antarctica – which will be presented later – only apply to IAATO-members.<sup>164</sup> Furthermore, the data and statistics of the IAATO, which are of great importance for the appraisal of the development of tourism in Antarctica, only record IAATO-members.<sup>165</sup>

The following conclusions may be drawn in this regard: According to the information at hand, expedition cruises exclusively take place within the IAATO-framework. However, there are areas in which the IAATO's claim to represent the vast majority of the tourism industry cannot be verified. This applies to yacht tourism; furthermore it is also true for overflights, airline companies that are integrated into land-based tourism and the organizations that offer or conduct one-time land-based expeditions e.g. for charitable purposes.

Until now, there have not been any reliable numbers on the proportion of IAATO-members in yacht tourism. This study closes this gap. The study was able to identify 227 yachts that were in the Antarctic Treaty area for tourist purposes during the time period from 1996 to 2013. A significant percentage of the identified yachts have an own website and regularly offer voyages into the Antarctic Treaty area. Merely 16% of the identified yachts were IAATO-members during the time of their Antarctic voyage.<sup>166</sup> Thus, it cannot be assumed that the IAATO can represent or manage this form of tourism.<sup>167</sup> The IAATO itself assumes that approximately 50% of yacht tourism is conducted without a governmental authorization.<sup>168</sup> Due to the low return flow of our inquiry concerning the post visit reports, this number however could not be verified.

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<sup>162</sup> For this see Annex II. Of the 112 Tourist operators known to this study, which employ vessels and yachts, this study was able to obtain information with respect to the flag States of the vessels and yachts for 94 operators. 33 of these 94 operators resorted - at least once - to vessels flying the flag of a third State.

<sup>163</sup> See 3.6.

<sup>164</sup> Cf. for more details 3.5.2.

<sup>165</sup> The IAATO itself claims to incorporate all of the seaborne tourism industry (outside of yacht tourism) and claims to incorporate the majority of Antarctic tourism as a whole, cf. ATCM XXXVII (2014), IP 45 rev. 1, 3.

<sup>166</sup> 37 of the 227 identified yachts.

<sup>167</sup> Even the IAATO is aware of its little influence over yacht-based tourism and has already initiated a campaign to expand this influence, cf. ATCM XXXIV (2011), IP 14; cf. also the website of the IAATO that is available at: <http://iaato.org/yachts>.

<sup>168</sup> ATCM XXXIII (2010), IP 75, 3.

Only one of the three airline companies that offer land-based tourism is also a member of the IAATO.<sup>169</sup> Moreover overflights are currently only being offered by operators that are not IAATO-members.<sup>170</sup> Of the six known operators that offer land-based tourism, only three were IAATO-members during the 2013/2014 season.<sup>171</sup> The same applies to the organizers of one-time expeditions for charitable purposes. However, they also generally have to rely on the logistical support of the existing large tourist operators.

That predominantly expedition cruise operators are IAATO-members is due to the fact that the IAATO offers the greatest advantages for these operators with respect to the planning and execution of an Antarctic voyage. For instance, they can book landing spots in Antarctica via the ship schedulers,<sup>172</sup> and in this way ensure that only one vessels docks in each spot. IAATO-membership precisely does not offer comparable advantages to other forms of tourism.

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<sup>169</sup> This is the US-company Adventure Network International; available at: [www.adventure-network.com](http://www.adventure-network.com). The non-IAATO-member is the South African Airline Antarctic Logistics Centre International; it however mainly supports the national scientific programs and further flies tourists to the Antarctic Treaty area; available at: <http://www.alci.co.za/>; furthermore, there is also the Chilean airline company DAP Aerovías, which offers flights from Punta Arenas to King George Island; available at: <http://aeroviasdap.cl/>.

<sup>170</sup> This is the Australian company Antarctica Flights together with the Australian airline company Qantas, available at: <http://www.antarcticaflights.com.au/>.

<sup>171</sup> White Desert, Adventure Network International and the Antarctic Company; Arctic Trucks only became IAATO-member in 2014/15 IAATO. Aerovías/DAP and Icewarrior remain non-members.

<sup>172</sup> This is an internal booking system of the IAATO with which an operator can bindingly reserve a landing spot; cf. for this 3.5 with further references.

## 2.2.4 Overview of Antarctic tourism

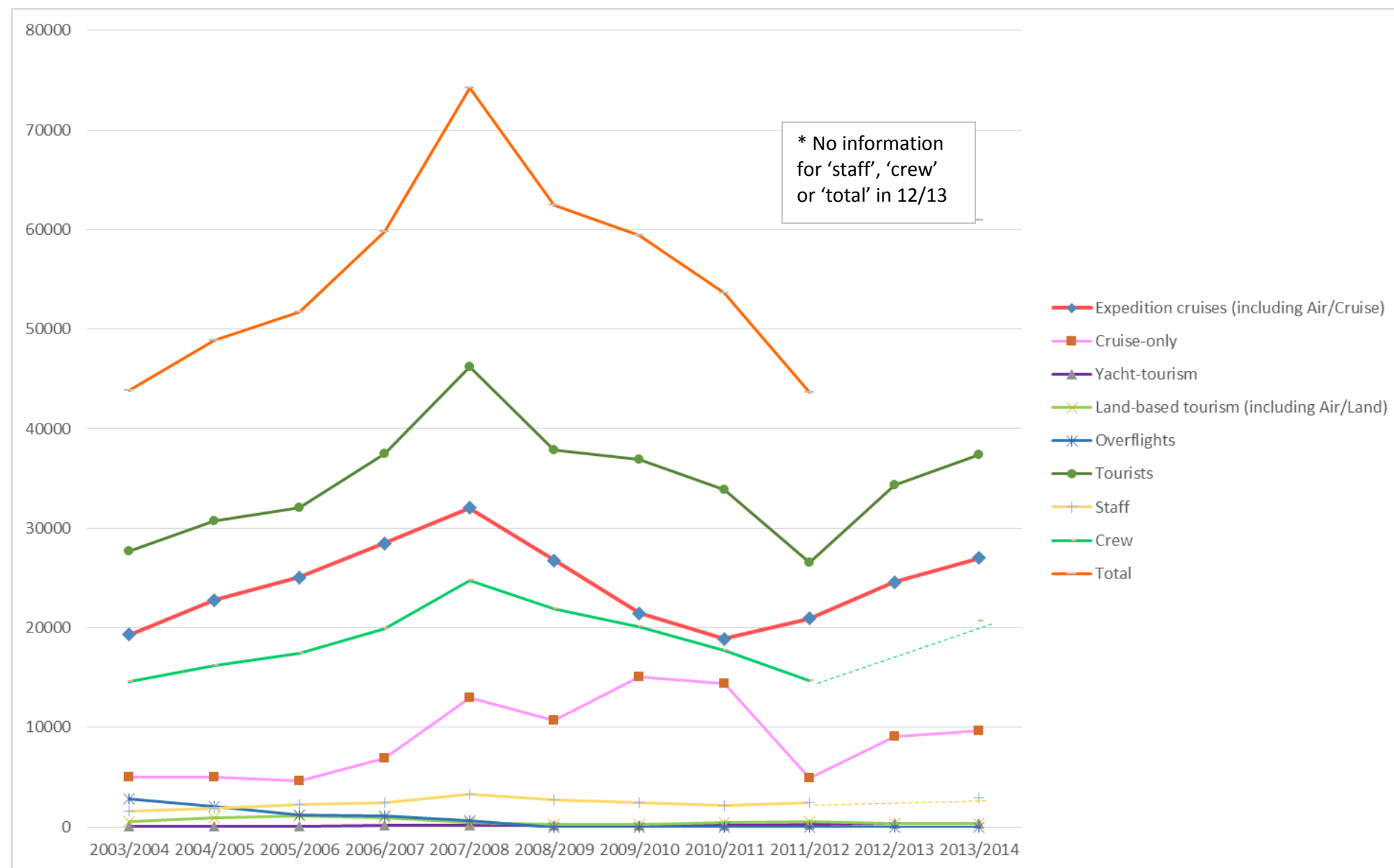
**Table 5: Antarctic tourism on the basis of IAATO-data<sup>173</sup>**

Number of persons per season	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Expedition cruises (including Air/Cruise)	19.329	22.797	25.079	28.494	32.044	26.759	21.442	18.883	20.902	24.564	27.006
Cruise-only	4.949	5.027	4.632	6.930	1.3015	10.652	15.026	14.373	4.872	9.070	9.670
Yacht-tourism	40	37	88	128	154	174	180	182	229	328	368
Land-based tourism (including Air/Land)	517	878	1.078	908	439	273	233	386	516	354	361
Overflights	2.827	2.030	1.165	1.046	613	0	0	0	0	0	0
<b>Total number of tourists</b>	<b>27.662</b>	<b>30.769</b>	<b>32.042</b>	<b>37.506</b>	<b>46.265</b>	<b>37.858</b>	<b>36.881</b>	<b>33.824</b>	<b>26.519</b>	<b>34.316</b>	<b>37.405</b>
Staff	1.573	1.895	2.188	2.430	3.282	2.683	2.455	2.101	2.468	n/a	2.882
Crew	14.627	16.186	17.469	19.890	24.727	21.896	20.086	17.725	14.652	n/a	20.663
<b>Total number of Antarctic voyagers</b>	<b>43.862</b>	<b>48.850</b>	<b>51.699</b>	<b>59.826</b>	<b>74.274</b>	<b>62.437</b>	<b>59.422</b>	<b>53.650</b>	<b>43.639</b>	<b>n/a</b>	<b>60.950</b>

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<sup>173</sup> Data sources: IAATO Tourism Overviews and IAATO Tourism Summaries (the latter for staff and crew numbers). Since here the staff and crew on Antarctic voyages are included in the calculation, the total number of Antarctic voyagers per season is significantly higher than in the IAATO-overviews, which only list the total number of tourists.

**Table 6: Antarctic Tourism on the basis of IAATO-data (graph)**



## 2.2.5 Outlook

On the basis of the data at hand, the future of tourism in Antarctica can plausibly be estimated as follows:

With respect to the quantitative development, the legal and economic framework is decisive. The IAATO itself seems to assume that the number of Antarctic tourists will stabilize at the level of 2013/2014 at circa 37,000 and that the peak level in 2007 will not be reached again.<sup>174</sup> Whether this will be the case, however, depends firstly on the economic development in those States, from which the (potential) tourists originate, and secondly on whether there will be further regulations that directly or indirectly affect Antarctic tourism, particularly measures that limit that attractiveness of Antarctica for tourists or lead to costs for the tourist operators.<sup>175</sup> Since emerging markets have hardly been tapped to date,<sup>176</sup> it is plausible to assume that the number of Antarctic tourists will further rise in the coming years and will reach new peaks when the economic development in important emerging markets allows for this and no other restrictions are made.

Both due to the development of Antarctic tourism in the last years and decades<sup>177</sup> as well as the general tendency of increasing individualization of tourist activities, it must also be assumed that the form of Antarctic tourism will further transform, thereby also will further diversify and individualize, without the classic forms of Antarctic tourism necessarily receding.

Therefore, not only, a limitation of tourism in general will be more difficult. It can also be assumed that the dangers for the environment (and potentially also for research) will increase, since some of the tourists in the future will also want to reach pristine, new places in Antarctica and will employ new forms of tourism. Which kind of new types of tourism will still be added to the already comprehensive selection cannot currently be stated today.<sup>178</sup>

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<sup>174</sup> This was stated by the Executive Director of the IAATO in a conversation on 26 September 2014.

<sup>175</sup> This is also the prognosis of an expedition conducted by the Netherlands, Spain, and the United Kingdom; Antarctic Treaty Inspections Programme, Report of Antarctic Treaty Inspections Undertaken Jointly by the United Kingdom, the Netherlands and Spain in Accordance with Article VII of the Antarctic Treaty and Article 14 of the Environmental Protocol, 2013, 14 et seq.; available at: [http://ats.aq/documents/ATCM36/att/atcm36\\_att108\\_e.pdf](http://ats.aq/documents/ATCM36/att/atcm36_att108_e.pdf).

<sup>176</sup> Cf. note 143.

<sup>177</sup> See 2.2.1.

<sup>178</sup> At least one tourist operator assess the greatest potential for growth in individual tourist offers of a land-based nature, while the market for traditional (expedition) cruise tourism is considered as saturated. This was stated to the authors in a conversation by a representative of Polar Explorers, a tourist operator that offers land-based tourism, on 17 July 2014.

### 3 Normative framework of Antarctic tourism

This chapter examines the normative framework on Antarctic tourism. Three different areas have to be distinguished:

First as a starting point, the existing rules of international law on Antarctic tourism have to be analyzed, which as binding law obligate the States. Here, both, the Antarctic Treaty system as well as other international norms including rules of the Law of the Sea and International Environmental Law are to be addressed. Second, the rules on Antarctic tourism adopted by IAATO are examined. They have – as legal rules that are laid down by a private organization – normative relevance as well. Third, the domestic implementation of the EIA by certain States parties will be comparatively examined. Thereby, a particular focus will be on the legislation in Germany. Here, the possibilities and limitations of a restriction on Antarctic tourism will be elucidated. This approach will illustrate the normative rules that address Antarctic tourism in a multi layered system.

#### 3.1 Regulation of Antarctic tourism through the Antarctic Treaty system

In this part, the regulation of Antarctic tourism by the Antarctic Treaty system – comprising the primary treaty norms of the Antarctic Treaty system as well as related secondary rules agreed upon by the Consultative States – will be examined.<sup>179</sup>

##### 3.1.1 Treaty law

The treaty law of the Antarctic system encompasses – chronologically – the following instruments:<sup>180</sup>

- the Antarctic Treaty from 1 December 1959 (AT);
- the Convention for the Conservation of Antarctic Seals from 1 June 1972 (CCAS);
- the Convention for the Conservation of Antarctic Marine Living Resources from 20 May 1980 (CCAMLR);
- the Protocol on Environmental Protection to the Antarctic Treaty from 4 October 1991 (Environmental Protocol).

##### 3.1.1.1 Antarctic Treaty

The Antarctic Treaty does not contain any explicit regulations for Antarctic tourism. It limits the use of Antarctica to peaceful purposes (Art. I(1) AT), guarantees the freedom of scientific research, enshrines the privilege of research and provides for international cooperation in this area (Art. II, Art. III, and Art. IX AT). In addition, it ‘freezes’ the territorial claims by some States parties, the so-called claimant States, for the duration of the treaty (Art. IV AT). The seven States parties that have made claims on parts of Antarctica are referred to as the claimant States; they are Argentina, Australia, Chile, France, New Zealand, Norway, and the United Kingdom. The Argentinian, Chilean and UK claims partially overlap. All other

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<sup>179</sup> For the definition of measure see 3.1.2.

<sup>180</sup> See note 13.

States parties of the Antarctic Treaty, like Germany, are so-called non-claimant States and do not make any territorial claims in the area of the Antarctic Treaty.<sup>181</sup>

The tourist use of the Antarctic Treaty area constitutes a use of Antarctica for peaceful, but non-scientific, purposes. Since scientific activities are privileged, they are to be distinguished from other peaceful activities like Antarctic tourism.<sup>182</sup> The prohibition of activities contrary to the purpose of the Antarctic Treaty stipulated by Art. X AT is not applicable with respect to Antarctic tourism.<sup>183</sup> All activities that are not prohibited, like tourism, are allowed by the Antarctic Treaty.<sup>184</sup>

The Antarctic Treaty contains two stipulations, however, that considerably affect Antarctic tourism:

Firstly, the obligation to notify other States parties of activities proceeding from a States party's territory – or organized therein – enshrined in Art. VII(5)(a) AT; this applies to all expeditions and thus also to tourist activities.<sup>185</sup> The wording of Art. VII(5)(a) AT is arguably not without ambiguities in that regard since it refers to 'expeditions', only. However, according to the ordinary meaning of the term this also covers discovery voyages.<sup>186</sup> Besides, the object and purpose of the provision supports a wide interpretation comprising tourist activities, since the provision is supposed to ensure that all relevant information concerning vessel movements and persons in the treaty's scope of application are exchanged amongst the States parties. Accordingly, the States parties inform one another of all expeditions – including tourist expeditions – in the Antarctic Treaty area.<sup>187</sup>

Secondly, it follows from Art. VIII(1) AT that the exclusive jurisdiction of the States parties for their nationals employed as scientific personnel and observers does not also apply to Antarctic tourists, since they are 'other persons' in the sense of this provision.<sup>188</sup> This provision illustrates that the Antarctic Treaty is not designed to be a comprehensive regulation of private, commercial activities in the Antarctic Treaty area.

The latter also becomes evident with respect to the acquisition of property titles. Since the territorial claims of the claimant States are disputed by other States<sup>189</sup> and the Antarctic Treaty does not resolve this question, but merely contains an 'agreement to disagree' in this regard (Art. IV AT), the acquisition of property-related rights or usufructuary rights cannot be definitely settled by the Antarctic Treaty.<sup>190</sup> In

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<sup>181</sup> For a comprehensive account see A. Watts 1992, 111 et seq.; ferner S. Vöneky/S. Addison-Agyei 2012, paras. 6 et seq.

<sup>182</sup> Thus, the cooperation obligations contained in Art. III(1) AT also do not apply to Antarctic tourism; they merely extend to the area of scientific research.

<sup>183</sup> P. Vrancken 2003, 212.

<sup>184</sup> P. Vrancken 2003, 212; cf. also S. Vöneky/R. Wolfrum/J. Friedrich 2005, 737.

<sup>185</sup> B. Bozek, 1988, 462 et seq.; 469 et seq.

<sup>186</sup> Cf. only Collins Cobuild 1987, 494: "An expedition is [...] an organized journey, usually involving several people, that is made for a particular purpose such as exploration".

<sup>187</sup> For the information exchange of tourist activities see 2.1.3.1 and 2.1.3.3.

<sup>188</sup> On this question cf. already B. Bozek 1988, 469 et seq.; in 2012, a discussion process on this among the States Parties to the Antarctic Treaty was initiated; see ATCM XXXV (2012), Resolution 2.

<sup>189</sup> See note 181.

<sup>190</sup> A. Watts 1992, 124 et seq.; in detail see also J. Kämmerer 1994, 86 et seq.



contrast to the Moon Treaty,<sup>191</sup> the Antarctic Treaty however does not contain the explicit exclusion of the acquisition of rights of property or use by single States.<sup>192</sup> These questions can only be conclusively resolved through a final clarification of the status of the Antarctic Treaty area, which is currently not possible.

### **3.1.1.2 Convention for the Conservation of Antarctic Seals**

The Convention for the Conservation of Antarctic Seals also does not contain any explicit regulations of Antarctic tourism, since it only serves to protect the seals in Antarctica. The spirit of this treaty is to limit the commercial catch of seals in Antarctica in the future.<sup>193</sup>

### **3.1.1.3 Convention for the Conservation of Antarctic Marine Living Resources**

Although the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) is generally applicable to tourist activities,<sup>194</sup> the question arises whether these norms are of any practical relevance for Antarctic tourism. The treaty only regulates the harvesting of living marine resources and associated activities (Art. II(3)(c) CCAMLR). Antarctic tourism itself represents neither a use of living marine resources nor an activity associated with it. A general protection of environmental pollution in the sea, which would also affect Antarctic tourism, is however not established by the CCAMLR.<sup>195</sup>

### **3.1.1.4 Protocol on Environmental Protection to the Antarctic Treaty**

The Environmental Protocol is the most recent treaty within the Antarctic Treaty system. In contrast to the previous treaties of the Antarctic treaty system, this treaty stipulates a comprehensive protection of the Antarctic environment. (Art. 2 Environmental Protocol). The Environmental Protocol contains a so-called 'general part'<sup>196</sup>, which is applicable to all activities: This general part consists out of the provisions of the protocol itself, the schedule on arbitration,<sup>197</sup> and the Annex I on the Environmental Impact Assessment (EIA).<sup>198</sup>

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<sup>191</sup> "Outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means." Art. II of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies of 27 January 1967; entry into force 10 October 1969, for the Federal Republic of Germany 1 February 1971 (610 UNTS 205, BGBl. II 1969, 1969).

<sup>192</sup> ATCM XXVIII (2005), IP 71, 4 et seq.

<sup>193</sup> A. Watts 1992, 211 et seq., 215.

<sup>194</sup> P. Beck 1994, 378.

<sup>195</sup> N. Krüger 2000, 20.

<sup>196</sup> The distinction between 'general part' and 'special part' is not explicitly enshrined in the Environmental Protocol, but makes sense analytically-

<sup>197</sup> Schedule to the Protocol Arbitration (30 ILM 1455, 1470).

<sup>198</sup> Annex I to the Protocol on Environmental Protection to the Antarctic Treaty Environmental Impact Assessment (30 ILM 1455, 1473).

Further, it contains a so-called ‘special part’ whose applicability is reserved to certain activities. This special part comprises five annexes:

- Annex II on Conservation of Fauna and Flora;<sup>199</sup>
- Annex III on Waste Disposal and Waste Management;<sup>200</sup>
- Annex IV on Prevention of Marine Pollution;<sup>201</sup>
- Annex V on Area Protection and Management,<sup>202</sup> and
- Annex VI on Liability Arising from Environmental Emergencies,<sup>203</sup> which has not yet entered into force.

### **Antarctic tourism according to the ‘general part’ of the Environmental Protocol**

The provisions of the ‘general part’ of the Environmental Protocol of importance for Antarctic tourism are Arts. 2, 3 and 8 in conjunction with Annex I Environmental Protocol. Art. 2 Environmental Protocol stipulates the objectives of the Environmental Protocol: These are the protection of the Antarctic environment and dependent and associated ecosystems.<sup>204</sup> In addition, Antarctica is designated as a natural reserve, devoted to peace and science.

In the following, first of all, the regulation of Antarctic tourism by Art. 3 of the Environmental Protocol is examined and the assessment of the environmental impacts of tourism is spelled out. Additionally, the questions of whether an obligation for the States parties to require an authorization for tourist activities arises from the Environmental Protocol and whether permanent tourism infrastructure *per se* is incompatible with the Environmental Protocol are resolved.

#### Antarctic tourism in the light of Art. 3 Environmental Protocol

Art. 3(1) Environmental Protocol generally lays down the decisive aspects of the “planning and conduct of all activities in the Antarctic Treaty area”. These include:

*“The protection of the Antarctic environment and dependent and associated ecosystems and the intrinsic value of Antarctica including its wilderness and aesthetic values and its value as an area for the conduct of scientific research [...]”. “*

Pursuant to Art. 3(2) Environmental Protocol, four obligations follow from this:

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<sup>199</sup> Annex II to the Protocol on Environmental Protection to the Antarctic Treaty Conservation of Fauna and Flora (30 ILM 1455, 1475).

<sup>200</sup> Annex III to the Protocol on Environmental Protection to the Antarctic Treaty Waste Disposal and Waste Management (30 ILM 1455, 1479).

<sup>201</sup> Annex IV to the Protocol on Environmental Protection to the Antarctic Treaty Prevention of Marine Pollution (30 ILM 1455, 1482).

<sup>202</sup> Annex V to the Protocol on Environmental Protection to the Antarctic Treaty area Protection and Management, ATCM XVI (1991), Recommendation XVI-10, Attachement, “Annex V of the Environmental Protocol (Area Protection and Management)”.

<sup>203</sup> Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty Liability Arising from Environmental Emergencies, ATCM XXVIII (2005), Measure 1, “Annex VI Liability”, Appendix.

<sup>204</sup> See 1.1.1.

- activities in Antarctica shall be planned and conducted so as to limit ‘adverse impacts’ on the environment (Art. 3(2)(a) Environmental Protocol);
- six specific negative environmental impacts shall be avoided;<sup>205</sup>
- all Antarctic activities shall be planned and conducted on the basis of sufficient information to allow informed judgments about their possible impacts of the activities (Art. 3(2)(c) Environmental Protocol);
- regular and effective monitoring activities of already ongoing activities (Art. 3(d) and (e) Environmental Protocol).

The binding character of Art. 3 Environmental Protocol is denied by some authors, since the title and introduction (chapeau) of this provision merely speaks of principles (“Environmental Principles”).<sup>206</sup> However, this interpretation is not convincing and is to be rejected in accordance with the majority opinion of scholars: The objective of the Environmental Protocol to erect a system of comprehensive environmental protection for the Antarctic Treaty area could not be achieved if this core provision - sometimes referred to as the ‘safety net’<sup>207</sup> of the entire Protocol - would be deprived of binding force.<sup>208</sup>

Art. 3 Environmental Protocol affirms two points with regard to Antarctic Tourism: First, Antarctic tourism is in general an admissible and legitimate form of the use of Antarctica.<sup>209</sup> Second, in contrast to scientific research activities, Antarctic tourism constitutes a non-privileged, that is neutral, activity in Antarctica pursuant to the Environmental Protocol<sup>210</sup> (Art. 3(3) Environmental Protocol<sup>211</sup>).

The same also applies *mutatis mutandis* to other non-governmental activities that are related to tourism, for instance the work of media representatives or of tourist staff.<sup>212</sup> These are also non-privileged and thus neutral forms of Antarctic use. Furthermore, other governmental activities are also generally not

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<sup>205</sup> See Art. 3(2)(b)(i) – (vi) Environmental Protocol, which include: “i) [A]dverse effects on climate or weather patterns; ii) significant adverse effects on air or water quality; iii) significant changes in the atmospheric, terrestrial (including aquatic), glacial or marine environments; iv) detrimental changes in the distribution, abundance or productivity of species or populations of species of fauna and flora; v) further jeopardy to endangered or threatened species or populations of such species and/or vi) degradation of, or substantial risk to, areas of biological, scientific, historic, aesthetic or wilderness significance”.

<sup>206</sup> Cf. for this K. Bastmeijer, 2003b, 104; cf. also J. Angelini/A. Mansfield 1994, 235. The legal binding effect of Art. 3 Environmental Protocol is particularly rejected by the United States, see for this C. Joyner 2000, 421.

<sup>207</sup> Cf. A. Watts 1992, 277; C. Redgewell 1994, 607.

<sup>208</sup> This result is shared by a majority of scholars, see e.g. W. Polk 1998, 1418; C. Redgewell 1994, 607; A. Epiney/J. Heuck/B. Pirker 2013, 40; implicitly also J. P. Puissochet 1991, 765; S.K.N. Blay 1992, 389. Critical in this regard J. Angelini/A. Mansfield 1994, 235.

<sup>209</sup> Cf. for instance the wording of Art. 3(4)(a) Environmental Protocol: “Activities undertaken in the Antarctic Treaty area [...], shall: [...] take place in a manner consistent with the principles in this Article”.

<sup>210</sup> J. Kämmerer 1994, 120 et seq.

<sup>211</sup> “Activities shall be planned and conducted in the Antarctic Treaty area so as to accord priority to scientific research and to preserve the value of Antarctica as an area for the conduct of such research, including research essential to understanding the global environment”.

<sup>212</sup> For the definitions, cf. 1.2.1.

privileged in an equivalent way to scientific research. An exception applies to inspections which are endowed with explicit powers by Art. VIII(1) AT and Art. 14 Environmental Protocol.

Beyond this, it seems difficult to draw any concrete conclusions out of Art. 3 Environmental Protocol for Antarctic tourism. Although the Environmental Protocol stipulates the general objective of an improved environmental protection in the Antarctic treaty area, it does not categorically block all human activities within Antarctica. In other words, it leaves the question to which degree negative environmental impacts are admissible, unresolved. Art. 3(2)(a) Environmental Protocol, obliging States parties to *limit* the negative environmental impacts of Antarctic activities, shows that negative environmental impacts are admissible up to a certain degree.<sup>213</sup> Furthermore, the obligation of the States parties to prevent certain negative environmental of Art. 3(2) (b) Environmental Protocol<sup>214</sup> is so vaguely formulated that it seems difficult to derive precise requirements thereof for Antarctic tourism.

#### The Environmental Impact Assessment (EIA)

The object of the EIA in the Environmental Protocol as well as in general international law, is to assess the environmental impacts of activities prior to their execution. Furthermore, it allows those carrying out the activity, the States parties, as well as the wider public to appraise the environmental impacts of an activity.<sup>215</sup> The EIA is applicable to all activities with the exception of emergencies (Art. 7 Annex I Environmental Protocol; Art. 8(1) Environmental Protocol). It can be subdivided into three different procedural stages:

- the preliminary stage (Art. 1 Annex I Environmental Protocol);
- the Initial Environmental Evaluation – IEE (Art. 2 Annex I Environmental Protocol); and
- the Comprehensive Environmental Evaluation – CEE (Art. 3 Annex I Environmental Protocol).

Whether just the preliminary assessment, the more thorough IEE, or the comprehensive CEE shall be conducted depends on the expected degree of environmental impact. The Environmental Protocol divides the severity of a planned activity into three categories:

- activities with less than a minor or transitory impact (Art. 8(1)(a) Environmental Protocol);
- activities with a minor or transitory impact (Art. 8(1)(b) Environmental Protocol); and
- activities with more than a minor or transitory impact (Art. 8(1)(c) Environmental Protocol).

Therefrom, theoretically the following process results: If, during the preliminary stage, it is prognosticated that the activity has less than a minor or transitory impact, then the activity may proceed (Art. 2(2) Annex I Environmental Protocol). In the other cases, however, additionally an IEE has to be conducted (Art. 1(2); Art. 2(1) Environmental Protocol). In practice not all of the above-mentioned procedures - i.e. the preliminary stage, the IEE and the CEE – have to be conducted successively. If it is already clear from the beginning that the activity is likely to have more than a minor or transitory impact a CEE will be conducted and the IEE and the preliminary stage are not necessary.

The IEE includes a description of the activity, its purpose, and its intensity as well as possible alternatives and considerations concerning its cumulative impact in the light of existing activities (Art. 2(1) Annex I Environmental Protocol). Here there are also two possible results: Either it is prognosticated that the ac-

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<sup>213</sup> Cf. A. Watts 1992, 278.

<sup>214</sup> See note 6.

<sup>215</sup> On the Environmental Impact Assessment in general, see P. Sands/J. Peel 2012, 601–623; A. Epiney, 2012.

tivity will have minor or transitory environmental impacts and the activity thus may proceed (Art. 3(2) Annex I Environmental Protocol) or, according to the prognosis, the activity exceeds this threshold. In the latter case, a CEE must be prepared (Art. 3(1) Annex I Environmental Protocol).

The CEE shall include twelve elements.<sup>216</sup> Further, the CEE-draft shall be circulated to the other States (Art. 3(3) Annex I Environmental Protocol). The opinions of the other States parties shall be heard before the final decision (Art. 3(5) Annex I Environmental Protocol) and shall be addressed and included in the final CEE (Art. 3(6) Annex I Environmental Protocol). The final decision – based on the CEE – on whether the activity should proceed (Art. 4(1) Annex I Environmental Protocol) always rests with the competent individual State party and is not subject to an international procedure.<sup>217</sup>

These requirements for the EIA, however, cannot sufficiently regulate and curtail Antarctic tourism.

Particularly problematic with respect to the assessment of individual activities in general is the fact that the notion of minor or transitory environmental impact has so far not been defined by the States parties; advances of States parties in this regard could not acquire consensus.<sup>218</sup> This is true despite the Consultative States' guidelines on the EIA which do not concretize minor transitory impacts.<sup>219</sup>

It can merely be concluded that – in view of the general object of the Environmental Protocol to establish a comprehensive environmental protection in the Antarctic Treaty area – the threshold of more than minor or transitory impacts is to be set low.<sup>220</sup> Furthermore, it can be assumed that the term 'transitory' describes a temporal component, while 'minor' environmental impact concerns a quantitative and qualitative component.<sup>221</sup>

Particularly with respect to tourist activities, the EIA can hardly unfold a restricting effect. This is also evident from the subsequent State practice: Tourist activities in Antarctica have so far never been subjected to a comprehensive CEE.<sup>222</sup> Rather, merely an IEE or a preliminary assessment is carried out.<sup>223</sup> In practice, it is thus always been prognosticated that tourist activities will *not* have more than a minor or

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<sup>216</sup> Art. 3(2)(a)–(l) Annex I Environmental Protocol. These contain *inter alia* a description of the proposed activity, a description of the initial environmental reference state, a prognosis of the environmental effects as well as possible alternatives to the planned activity.

<sup>217</sup> A. Watts 1992, 284.

<sup>218</sup> For these cf. ATCM XX (1996), IP 2; see also ATCM XXVIII (2005), Resolution 4, Annex, 2; on this also D. Rothwell 2000, 600 et seq. with further references.

<sup>219</sup> ATCM XXIII (1999), Resolution 1.

<sup>220</sup> Cf. A. Epiney/J. Heuck/B. Pirker 2013, 48.

<sup>221</sup> A. Epiney/J. Heuck/B. Pirker 2013, 44.

<sup>222</sup> For this, see the overview of EIAs on the website of the Secretariat of the Antarctic Treaty, available at: [http://ats.aq/devAS/ep\\_eia\\_list.aspx?lang=e](http://ats.aq/devAS/ep_eia_list.aspx?lang=e).

<sup>223</sup> Cf. A. Hemmings/R. Roura 2003, 19.

transitory impact on the Antarctic environment. This seems remarkable against the background that the number of Antarctic tourists exceeds the number of scientific personnel to a great extent.<sup>224</sup>

A reason for this shortcoming is that the EIA, in its current form as contained the Environmental Protocol, does not take into account the specific characteristics of Antarctic tourism.<sup>225</sup> If one considers the individual Antarctic tourist, he or she will have a negligible impact on the Antarctic ecosystem. However, the sum of tourist activities gives rise to a different picture due to cumulative effects. These cumulative aspects<sup>226</sup> are, however, not grasped by the EIA in its current form.<sup>227</sup> Indeed the IEE and CEE include a “consideration of cumulative impacts [of the proposed activity] in the light of existing and known planned activities”,<sup>228</sup> however these provisions are interpreted narrowly so that cumulative aspects are only considered with respect to the immediate temporal or spatial environment of the planned measure.<sup>229</sup> An evaluation, in which the total vulnerability of an especially frequented region, for instance the Antarctic Peninsula or the unique vulnerability of the entire Antarctic ecosystem could be included into the decision-making process, cannot deduced from this. Often the negative environmental impacts of Antarctic tourism only reveal themselves over a longer period of time. Accordingly, the following prognosis made at the time when the Protocol was adopted, has proven to be true:

*“The cumulative impact of less significant activities is likely to be the main loophole by which activities can proceed without adequate caution.”<sup>230</sup>*

#### An obligation to authorize tourist activities in Antarctica?

It remains to be clarified whether Antarctic tourism is subject to a national authorization, i.e. permit, requirement of the States parties. The Environmental Protocol itself does not explicitly stipulate an obli-

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<sup>224</sup> Currently, there are maximally 4,000 members of national scientific programs in the Antarctic Treaty area (in the summer circa 4,400 and in the winter circa 1,100); available at: <https://www.cia.gov/library/publications/the-world-factbook/geos/ay.html>. In contrast, the cumulative number of tourists according to IAATO in the 2012/2013 season stood at circa 34,300; ATCM XXXVI (2013), IP 103, 2. However, it does not necessarily follow therefrom that the environmental impacts of Antarctic tourism must exceed those of Antarctic research in every respect, since the scientific personnel and other members of research stations spend more time on the Antarctic continent than tourists.

<sup>225</sup> Its origin lies in the earlier ATCM-regulations, which were applicable to activities in connection with the national scientific programs. For this cf. A. Hemmings/R. Roura 2003, 20; see ATCM XIV (1987), Recommendation XIV-2, para. 1: “In the planning process leading to decisions about scientific research programmes and their associated logistic support facilities, their respective national Antarctic organizations responsible for Antarctic activities evaluate the environmental impact of such activities in accordance with the procedural guidelines set out below”; for this see also D. Lyons 1993, 113 et seq.

<sup>226</sup> The “Guidelines for the Environmental Impact Assessment in Antarctica” from 2005 that are set down in an ATCM-Resolution define cumulative impact as: “[T]he combined impact of past, present and reasonably foreseeable activities”, see ATCM XXVIII (2005), Resolution 4, Annex “Updating of Guidelines for Environmental Impact Assessment In Antarctica”, 2.

<sup>227</sup> K. Bastmeijer/R. Roura 2004, 771.

<sup>228</sup> Art. 3(2)(f) Annex I Environmental Protocol; for the IEE cf. the almost identical wording of Art. 2(1)(b) Annex I Environmental Protocol.

<sup>229</sup> K. Bastmeijer/R. Roura 2004, 770.

<sup>230</sup> W. Bush 2000, 25.

gation to authorize or permit all activities in Antarctica. Rather only certain activities subject to Annex II Environmental Protocol (“Conservation of Antarctic fauna and flora”) or Annex V Environmental Protocol (“Area protection and management”) are subject to an explicit authorization requirement.<sup>231</sup> Thus, a permit is required for the introduction of non-native species (Art. 4(1) und (3) Annex II Environmental Protocol),<sup>232</sup> the taking of or harmful interference with Antarctic flora and fauna (Art. 3(1) and (2) Annex II Environmental Protocol) as well as the entry or stay in an Antarctic Specially Protected Area (ASPA, Art. 3(4) Annex V Environmental Protocol). The United States also holds the view that no general requirement in the Environmental Protocol to authorize all activities in the Antarctic Treaty area exists.<sup>233</sup> A majority of the States parties has indeed implemented a national authorization procedure for tourist activities, however these States do not respond to the question of whether these procedures arise from an obligation of the Environmental Protocol.<sup>234</sup> Nevertheless, it is argued that a general authorization requirement for all Antarctic activities, including tourism, can be extracted from the overall context of the norms of the Environmental Protocol. According to this view, it cannot be explained how the obligations of Art. 13 Environmental Protocol<sup>235</sup> or Art. 3(4) Environmental Protocol<sup>236</sup> are to be fulfilled without a national authorization procedure. Furthermore, according to this line of argumentation, a requirement to expressly authorize all activities in the Antarctic treaty area would follow out of the obligations to conduct an EIA. As an EIA explicitly has to be conducted in order to prepare final decisions (“leading to decisions”, Art. 8(2) Environmental Protocol) it may be concluded that a party is simultaneously required to take such binding decisions.<sup>237</sup>

Against this view – that an obligation to authorize tourist activities would derive from the Environmental Protocol – several arguments can be brought forward: Art. 3(4)(b) and Art. 13 Environmental Protocol are formulated too generally as to deduce the existence of a special obligation to introduce specific national authorization procedures therefrom. It follows particularly from the provisions of the EIA that no general authorization requirement for all Antarctic activities exists. Activities with minor or transitory environmental impacts or with less impact “may proceed” according to the wording of the Environmental Protocol (Art. 1(2), Art. 2(2) Annex I Environmental Protocol), without being subject to an authorization procedure. Only with respect to activities beyond this threshold, for which a CEE has to be prepared, does Art. 4 Annex I Environmental Protocol stipulate that such activities entail a national decision that

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<sup>231</sup> For a similar view cf. J. Podehl 1993, 139; further N. Krüger 2000, 26.

<sup>232</sup> See also 3.1.1.4.

<sup>233</sup> For this position, see ATCM XXXVI (2013), WP 47, 7.

<sup>234</sup> On the different procedures, ATCM XXXVI (2013), WP 47, 7.

<sup>235</sup> W. Bush 2000, 34. Art. 13 Environmental Protocol is entitled “Compliance with this Protocol” and states in paragraph 1: “Each Party shall take appropriate measures within its competence, including the adoption of laws and regulations, administrative actions and enforcement within its competence, to ensure compliance with this Protocol”.

<sup>236</sup> Art. 3(4) Environmental Protocol states: “Activities undertaken in the Antarctic Treaty area pursuant to scientific research programmes, tourism and all other governmental and non-governmental activities in the Antarctic Treaty area for which advance notice is required in accordance with Article VII (5) of the Antarctic Treaty, including, associated logistic support activities, shall: (a) take place in a manner consistent with the principles in this Article; and (b) be modified, suspended or cancelled if they result or threaten to result in impacts upon the Antarctic environment or dependent and associated ecosystems inconsistent with those principles”.

<sup>237</sup> Cf. as to this opinion which cannot be considered a majority position A. Epiney/J. Heuck/B. Pirker 2013, 56.

incorporates the results of the IEE. It follows from this that there is no obligation to conduct an authorization procedure for activities below the threshold of “more than minor or transitory environmental impacts”. Here, a preliminary assessment or an IEE, in which the State examines what severity of environmental impact is to be expected, is sufficient.<sup>238</sup> This also corresponds to the practice of some of the States parties, like for instance the United States, whose domestic law explicitly does not envision an authorization procedure, but only a notification procedure for Antarctic activities.<sup>239</sup>

#### Incompatibility of new permanent infrastructure for tourism with the Environmental Protocol?

This study, as was presented by Germany in an Information Paper during the ATCM in 2005, posits that the establishment of new permanent tourist infrastructure, like hotel buildings, contradicts the Environmental Protocol.<sup>240</sup> There is no explicit prohibition of such infrastructure in the Antarctic Treaty or in the Environmental Protocol. However, a prohibition is supported by the basic principles of environmental protection and the privilege of scientific research, which are enshrined in these treaties. The specific risks for the particularly vulnerable Antarctic ecosystem that follow from the establishment and use of new permanent tourist infrastructure are decisive in that regard. These risks are not justified by legitimate purposes of the international community. The Environmental Protocol guarantees a balance between the freedom of scientific research on the one hand and the protection of the environment on the other. However, the establishment and use of new permanent tourist infrastructure, like hotels for instance, leads to environmental impacts that are comparable or even exceed those of a research station; but in contrast to Antarctic research (cf. Art. 3(1) and (3) Environmental Protocol) private use does not aim to serve a common good of the international community and no benefit for a common good will be achieved.

Since additionally the establishment of new permanent tourist infrastructure will occur particularly in the areas of the Antarctic Peninsula that are free of ice in the Antarctic summer and these areas are, however, also home to the overwhelming majority of Antarctic flora and fauna, this infrastructure constitutes an especially risky interference for the environment of Antarctica. Furthermore, the construction and use of new permanent tourist infrastructure can particularly conflict with Antarctic research if it is built – like on the Antarctic Peninsula – near research stations. Permanent tourist infrastructure, whose use represents a disturbance for Antarctic research, contradicts the privilege of scientific research that is prescribed by the Antarctic Treaty and the Environmental Protocol (Art. 3(3) Environmental Protocol). It follows from this privilege that it must be guaranteed that Antarctic research can be conducted without being impaired by other uses of Antarctica. Overall, it can thus be argued that the establishment of new permanent tourist infrastructure contradicts Art. 3 Environmental Protocol.<sup>241</sup>

Such an interpretation of the Environmental Protocol corresponds to the precautionary principle enshrined there, which has to be applied to particularly risky activities whose harmfulness is not yet scientifically proven. It follows from the prohibition of mineral resource activities in Art. 7 Environmental

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<sup>238</sup> K. Bastmeijer 2003b, 98 et seq.; K. Bastmeijer 2003a, 266 et seq.; for this result see also W. Bush 2000, 31: “The Protocol links but does not bind to the assessment process the decision it places in national hands to proceed with the activity”.

<sup>239</sup> Cf. 3.6.1.

<sup>240</sup> For this cf. R. Wolfrum/S. Vöneky/J. Friedrich 2005, 735 et seq. with further references; ATCM XXVIII (2005), IP 20.

<sup>241</sup> R. Wolfrum/S. Vöneky/J. Friedrich 2005, 738 et seq.; ATCM XXVIII (2005), IP 20.



Protocol that the precautionary principle is to be broadly interpreted according to the Environmental Protocol and the States parties do not want to tolerate activities with unclear environmental impacts.<sup>242</sup>

Furthermore, it cannot be argued that the EIA (Art. 8(2) in connection with Annex I Environmental Protocol), which operationalizes the precautionary principle, sufficiently accounts for this principle with respect to the dangers through tourism and its infrastructure: Harmful cumulative environmental impacts through tourist infrastructure cannot be sufficiently captured precisely through the EIA. This also speaks in favor of a broad interpretation of the precautionary principle and for a general prohibition of the establishment and use of new permanent tourist infrastructure, like hotel buildings, that is to be derived therefrom.<sup>243</sup>

A similar result is reached by those, who like two Consultative States, assume that permanent tourist infrastructure violates the status of Antarctica as a natural reserve;<sup>244</sup> both States attempted – unsuccessfully to date – to introduce draft resolutions with the demand for prohibition in the ATCM.

However, according to a different view, even the establishment and use of new permanent tourist infrastructure does not violate the Environmental Protocol in every case. It is brought forward that the Environmental Protocol neither contains explicit regulations on tourism with permanent infrastructure nor allows for the derivation of clear prohibitions in connection with tourist activities – since the Environmental Protocol contains prohibitions of individual activities, like mineral resource activities, the introduction of dogs onto the Antarctic land (Art. 4(2) Annex II Environmental Protocol), or the discharge of oil into Antarctic waters (Art. 7 Environmental Protocol, Art. 4(2) Annex III and Art. 3(1) Annex IV Environmental Protocol), a prohibition of concrete activities that are not explicitly named *e contrario* cannot be derived from the wording of Art. 3 Environmental Protocol. Therefore, according to this view, the establishment of new permanent tourist infrastructure is not *generally* prohibited.

Something else, however, would apply if a uniform attitude with respect to a prohibition of new permanent tourist infrastructure could be deduced from the interpretational practice of the States parties. So far this is not the case. The debates in the framework of the ATCM about draft resolutions and Working Papers on permanent infrastructure show that few States parties still consider this infrastructure to be compatible with the Environmental Protocol. Although no Consultative State argues in favor of establishing new permanent tourist infrastructure, particularly the construction of hotels,<sup>245</sup> it is also argued that the Environmental Protocol grants the Consultative States the right to build and to use new permanent facilities in Antarctica for tourist purposes.<sup>246</sup>

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<sup>242</sup> R. Wolfrum/S. Vöneyk/J. Friedrich 2005, 738; ATCM XXVIII (2005), IP 20.

<sup>243</sup> ATCM XXX (2007), WP 13, 2 et seq.

<sup>244</sup> ATCM XXVIII (2005), WP 38, 2: “It has been argued that permanent tourism infrastructure in Antarctica could threaten the wilderness and aesthetic values that Treaty Parties have a responsibility to protect under the Protocol on Environmental Protection to the Antarctic Treaty (the Madrid Protocol). It could also undermine the operation of the Antarctic Treaty system, which does not have juridical mechanisms to manage legal issues that could arise from complex international commercial arrangements”; ATCM XXVIII (2005), WP 12, 2: “By designating Antarctica as a ‘natural reserve’ and by mandating the protection of its ‘wilderness values’, it is apparent that the States Parties wished to preserve the continent as a wild, uninhabited area as far as possible. The creation of permanent or semi-permanent structures to accommodate numbers of people whose travel to Antarctica is primarily for the purposes of pleasure or adventure as opposed to science is very likely to infringe upon these values”.

<sup>245</sup> In this sense, cf. particularly ATCM XXIX (2006), Final Report, Vol. I, para. 171.

<sup>246</sup> The statement by Argentina is to be understood in this sense, ATCM XXX (2007), Final Report, Vol. I, para. 139.

Something similar applies to the reasoning that new permanent tourist infrastructure is prohibited as an inadmissible form of use, since this represents an activity with more than minor or transitory impacts, as is also argued by the IAATO.<sup>247</sup> A few States were able to prevent a consensus on such a prohibition and to dilute the final resolution on this question.<sup>248</sup>

However, against the view that argues in favor of a prohibition of tourist infrastructure, it is countered that the Environmental Protocol indeed has clearly increased the environmental protection in the Antarctic Treaty area, but that it does not establish a locked World Park,<sup>249</sup> which is free of all economic use. Rather, as can be drawn from the wording of Art. 3(2)(a) Environmental Protocol, certain negative environmental impacts may also be accepted according to the Environmental Protocol.<sup>250</sup> In addition, it is to be considered that the concept of permanent infrastructure could be defined broadly for Antarctic tourism and then would also include runways, permanent wharfs and similar constructions. Ultimately, according to this view, one has to differentiate: Although there might be new permanent tourist infrastructure that is not compatible with the principles of the Environmental Protocol, especially with respect to large-scale facilities and buildings like large hotels, this can not to be assumed for every new permanent tourist infrastructure.

### Conclusion

If one assumes the still existing disagreement in the literature and among the States parties with respect to new permanent tourist infrastructure that was just described, then, in the final analysis, Antarctic tourism is not sufficiently regulated by the Environmental Protocol. This is based on the lacking consensus to date among the States parties about whether there are categories of tourist activities that may not be conducted since they violate the Environmental Protocol.

Moreover, it also does not seem possible to derive maximum limits for the number of tourists in Antarctica from the provisions of the Environmental Protocol, since the norms are formulated too generally and are imprecise. The decisive question, how much tourist use is compatible with the Environmental Protocol pursuant to the precautionary principle, is left unresolved.<sup>251</sup>

### **Protected areas according to Annex V of the Environmental Protocol**

According to Annex V of the Environmental Protocol, it is possible to designate specially protected areas in the ATCM. Here, the Antarctic Specially Protected Areas (ASPAs), of which 72 exist so far, are to be

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<sup>247</sup> Cf. for this ATCM XXXI (2008), IP 84, 4.

<sup>248</sup> ATCM XXX (2007), WP 13, 5: "In the case of any proposed tourism or other non-governmental activity which is likely to have more than a minor or transitory impact upon the Antarctic environment the Parties should decide that the activity should not proceed." The final ATCM XXX (2007), Resolution 5, only contains one wish: "[...] to limit the potential impacts of tourism activities, including cumulative impacts, upon the Antarctic environment"; for the entire discussion see K. Bastmeijer/M. Lamers/J. Harcha 2008, 291 et seq.

<sup>249</sup> This concept arose in the 1980s in order to prevent the exploitation of mineral resources in Antarctica. Although this prohibition occurred again in the Environmental Protocol, the terminology 'World Park' was not adopted; instead Antarctica was designated as a "natural reserve devoted to peace and science"; cf. for instance K. Bastmeijer/S. van Hegel 2009, 64 et seq.

<sup>250</sup> A. Watts 1992, 278.

<sup>251</sup> See note 213.

separated from the Antarctic Specially Managed Areas (ASMAs), of which only six exist.<sup>252</sup> Both types of areas are administered through a management plan (Art. 5 Annex V Environmental Protocol). All activities within these areas must be in accordance with the management plan.

#### Antarctic Specially Protected Areas (ASPAs)

Access to Antarctic Specially Protected Areas (ASPAs) is only possible with a permit issued by a State party in accordance with the provisions of the management plan (Art. 7 Annex V USP). The legal regime in such areas is stricter than in the rest of Antarctica: Here, only what is in accordance with the management plan is allowed.<sup>253</sup>

The management plans that are currently in effect can be divided into three groups with respect to Antarctic tourism:

- *Group 1* contains an explicit prohibition of tourist activities. This is only the case for one management plan that is currently in effect;<sup>254</sup>
- *Group 2* permits tourist activities. This is the case for six management plans that are currently in effect;<sup>255</sup>

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<sup>252</sup> Available at: [http://ats.aq/documents/ATCM36/WW/atcm36\\_ww005\\_e.pdf](http://ats.aq/documents/ATCM36/WW/atcm36_ww005_e.pdf). An overview is available at: [http://ats.aq/devPH/apa/ep\\_protected.aspx?lang=e](http://ats.aq/devPH/apa/ep_protected.aspx?lang=e).

<sup>253</sup> No material requirements for the permit are contained within Annex V of the Environmental Protocol; those requirements are rather stipulated within the individual management plan, applicable in the respective area; cf. also at: <http://www.antarctica.gov.au/environment/protecting-and-managing-special-areas>.

<sup>254</sup> ATCM XXXVI (2013), Measure 4, Annex, para. 7 (i): “Neither tourism nor any other recreational activities are permitted”.

<sup>255</sup> Cf. ATCM XXIX (2006), Measure 1, Annex G, para. 7: “The general conditions determining permit issuance include, [...] tourism-related activities and educational and leisure activities shall be limited until completion of the phases of archeological study and high structure’s possible reinforcement operations (safety measures and historical monuments preservation). The duration of this limited access period shall be left up to the discretion of the competent national authority”; ATCM XXXII (2009), Measure 2, Annex, para. 8: “General conditions for issuing a Permit to enter the ASOPA may include: [...] educational purposes and activities, including tourism, consistent with the aims and objectives of this management plan”; ATCM XXXIII (2010), Measure 8, Annex, para. 7 (i): “Permits to enter the site may be issued for a stated period for: [...] activities related to educational or recreational activities including tourism, providing that they do not conflict with the objectives of this plan”; the identical wording is found in *ibid.*, Measure 9, Annex, para. 7; *ibid.*, Measure 10, Annex, para. 7; *ibid.*, Measure 11, para. 7. However, unclear in this context, *ibid.*, Measure 4, according to which a permit can also be issued “for educational purposes that cannot be served elsewhere”. Here, the better reasons probably may be invoked in favor of a rejection of the possibility to permit tourist activities, as far as these can even be clearly differentiated from educational activities. In the same year, numerous management plans were adopted that permitted tourist activities, which leads *e contrario* to the conclusion that this management plan does not envision such an authorization.

- *Group 3* contains neither an explicit prohibition of tourist activities nor does it explicitly permit them. This is the case for a multitude of management plans that are currently in force. Management plans of group 3 mostly grant access either “for [compelling] scientific reasons”<sup>256</sup> or “for essential management purposes”.<sup>257</sup> The notion of management purposes encompasses purposes that relate to the maintenance of the area. Accordingly, Antarctic tourism is incompatible with both requirements and Antarctic tourism is inadmissible in ASPAs of group 3. However, the practice of the States parties sporadically deviates from these stipulations: Several States permit a large number of tourist visits for ‘education or outreach purposes’ in these areas.<sup>258</sup>

#### Antarctic Specially Managed Areas (ASMAs)

In contrast to the ASPAs, entry to Antarctic Specially Managed Areas (ASMAs) is not subject to a permit from a State party (Art. 4(3) Annex V Environmental Protocol), however these areas are also regulated through a management plan. Antarctic tourism is admissible in all six ASMAs.<sup>259</sup> Tourism is generally

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<sup>256</sup> See for instance ATCM XXV (2002), Measure 1, para. 7; ATCM XXVI (2003), Measure 2, Annex, para. 7; ATCM XXXIII (2010), Measure 1, Annex, para. 7 (i); ATCM XXXV (2012), Measure 3, Annex, para. 7 (i); ATCM XXXVI (2013), Measure 1, Annex, para. 7 (i); ATCM XXXVII (2014), Measure 1, Annex, para. 7 (i); ATCM XXXVII (2014), Measure 2, Annex, para. 7 (i); ATCM XXXVII (2014), Measure 3, Annex, para. 7 (i); ATCM XXXVII (2014), Measure 4, Annex, para. 7 (i).

<sup>257</sup> See for instance ATCM XXIX (2006), Measure 1, Annex A, para. 7; ATCM XXXIII (2010), Measure 6, Annex, para. 7; ATCM XXXV (2012), Measure 2, Annex, para. 7 (i); ATCM XXXVI (2013), Measure 1, Annex, para. 7 (i); ATCM XXXVII (2014), Measure 1, Annex, para. 7 (i); ATCM XXXVII (2014), Measure 2, Annex, para. 7 (i); ATCM XXXVII (2014), Measure 3, Annex, para. 7 (i); ATCM XXXVII (2014), Measure 4, Annex, para. 7 (i).

<sup>258</sup> L.R. Pertierra/K.A. Hughes 2013, 554.

<sup>259</sup> ATCM XXX (2007), Measure 2, Annex A, 77 para. 1: “Activities conducted in the area include diverse scientific research endeavours, operations in support of science, media, arts, education, and tourism.”; ATCM XXXII (2009), Measure 1, Annex, para. 8.2: “Activities which are or may be conducted within the Area: [...] Visitation for the purposes of education or recreation, including tourism”; ATCM XXXIII (2010), Measure 14, Annex, para. 1 (i): “Torgersen Island is the site of a study on the impacts of tourism, and has been divided into two areas, one open to visitors and the other closed as a site for scientific reference [...]”; ATCM XXXIV (2011), Measure 10, Annex, para. 7 (ii): “Activities which may be conducted in the area include scientific research; operations in support of science; [...] and tourism visits within the Visitor Zone, where these activities do not jeopardize the values of the Area.”; ATCM XXXV (2012), Measure 10, Annex, para. 2: “The main aim of this Management Package is to conserve and protect the unique and outstanding environment of Deception Island, whilst managing the variety of competing demands placed upon it, including science, tourism, and the conservation of its natural and historic values [...]”; ATCM XXXVII (2014), Measure 14, Annex, para. 7 (ii): “Activities which may be conducted in the Area, which will not jeopardize the values of the area, and which are consistent with the Code of Conduct: [...] Tourist or private expedition visits consistent with the provisions of this Management Plan, Scientific and Environmental Guidelines and Code of Conduct for Visitors”; ATCM XXXVII (2014), Measure 15, Annex, para. 1.2.3: “Sporadic ship-based tourist visits have been made to the area since 1992. These have involved half-day trips, during which passengers have been transported a shore by helicopter to view station areas, lakes, bird colonies and other features around eastern Broknes by foot. [...] Continuing human activity in the Larsemann Hills is promoted by the coastal location and ice-free landscape”.

admissible in the ASMAs provided that it does not disturb the scientific activity being conducted on site.<sup>260</sup>

However, the relationship between scientific activity and tourism in the Amundsen-Scott South Pole Station is remarkable. Here an operational zone was established next to a scientific zone. In the operational zone, the hierarchy of activities is reversed in comparison to the remaining Antarctic Treaty area: Scientific activities are only admissible provided that they do not run contrary to other activities, including tourism.<sup>261</sup> However, the lawfulness of this regulation is highly questionable considering the priority of scientific research set down in Art. 3(3) Environmental Protocol. This report cannot conclusively examine the possibilities of deviation from provisions of the Environmental Protocol through ASMA-management plans. Nevertheless, ultimately such plans may not violate primary international law, *i.e.* the treaties of the Antarctic system. Management plans shall thus be interpreted in accordance with treaties of the Antarctic Treaty system and are inapplicable if incompatible with these. The object and purpose of the ASMAs is indeed to coordinate different activities in an area (Art. 4(1) Annex V Environmental Protocol), however this does not entail the power to deviate from rules that are generally binding for all States parties.

#### Historic sites and monuments

Next to ASPAs and ASMAs, Annex V of the Environmental Protocol additionally regulates historic sites and monuments. They shall not be damaged, removed, or destroyed (Art. 8(4) Annex V Environmental Protocol). These prohibitions apply to all persons and activities in Antarctica and thus also to Antarctic tourists.

### **Conservation of Antarctic fauna and flora pursuant to Annex II of the Environmental Protocol**

Regulations relevant for tourism can also be found in Annex II of the Environmental Protocol on the conservation of fauna and flora. First, there is the general prohibition of taking of and harmful interference with the Antarctic fauna and flora (Art. 3(1) Annex II Environmental Protocol). For instance, already the disturbance of concentrations of birds or seals through the use of vehicles or the willful disturbance of concentrations of birds or seals is prohibited (Art. 3(1) in connection with Art. 1(h) Annex II Environmental Protocol). Exceptions from this general prohibition are possible if granted by national authorization, however such permits cannot be issued for tourist activities (Art. 3(2)(a)-(c) Annex II Environmental Protocol).

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<sup>260</sup> ATCM XXXIII (2010), Measure 14, Annex, para. 1 (i): “Torgersen Island is the site of a study on the impacts of tourism, and has been divided into two areas, one open to visitors and the other closed as a site for scientific reference. This site together with other nearby islands not visited by tourists provide a unique experimental setting to examine the relative effects of natural versus human-induced variability on Adélie penguin populations.”; ATCM XXXIV (2011), Measure 10, Annex, para. 7 (ii): “[...] and tourism visits within the Visitor Zone, where these activities do not jeopardize the values of the Area.”; para. 7 (ii): “Tourism and non-governmental expeditions should additionally ensure their activities have minimal impact on the scientific activities being conducted within the Area, [...]”; ATCM XXXV (2012), Measure 10, Annex, para. 2: “The objectives of management at Deception Island are to: [...] and manage potential or actual conflicts of interest between different activities, including science, logistics and tourism; [...]”.

<sup>261</sup> ATCM XXX (2007), Measure 2, Annex A, 80 para. 6(ii)(a): “The Operational Zone has been established to contain primary human activity in the Area, including science support activities, main station services (e.g. living facilities), ski-way operations, and tourism. Scientific activities may be conducted in the Operational Zone if they will not be in conflict with operational activities”.

Besides of this, the prohibition of the introduction of non-native species to Antarctica (Art. 4(1) Annex II Environmental Protocol) is of great significance for Antarctic tourism, considering that the unintentional introduction of non-native species, especially microorganisms, is one of the most important harmful environmental impacts of Antarctic tourism.<sup>262</sup> This includes not only a prohibition of the introduction of dogs onto land or ice shelves in the Antarctic Treaty area (Art. 4(2) Annex II Environmental Protocol), but also a prohibition of introducing living birds into Antarctica as well as of taking them from Antarctica. Furthermore, the leaving behind of poultry or parts in Antarctica is forbidden (Appendix C Annex II Environmental Protocol).

### **Waste disposal pursuant to Annex III of the Environmental Protocol**

The provisions on the treatment and the disposal of waste are explicitly also to be applied to tourist activities, even if they do not contain any special regulative statements with respect to Antarctic tourism (Art. 1(1) Annex III Environmental Protocol). The States parties are thus first generally obliged to produce as little waste in the Antarctic Treaty area as possible and to reduce the already existing waste if possible (Art. 1(2) Annex III Environmental Protocol). Next to prohibited products that shall not even be introduced into the Antarctic Treaty area (Art. 7 Annex III Environmental Protocol), there are a number of wastes whose storage in Antarctica is prohibited and which must be removed from the Antarctic Treaty area (Art. 2(1) Annex III Environmental Protocol). Other wastes are neither allowed to be openly burned (Art. 3(2) Annex III Environmental Protocol) nor disposed of onto ice-free areas or into fresh water systems (Art. 4(1) Annex III Environmental Protocol). However, sewage and domestic liquid wasters may be directly discharged into the sea under certain conditions (Art. 5(1) Annex III Environmental Protocol).

### **Marine environmental protection pursuant to Annex IV of the Environmental Protocol**

Annex IV applies to all ships flying the flag of a State party in the Antarctic Treaty area (Art. 2 Annex IV Environmental Protocol) as well as other ships regardless of their flag that support a party's national Antarctic operations.<sup>263</sup> The limited applicability of Annex IV is of significance for Antarctic tourism, since many vessels of tourist operators sail under a flag of convenience<sup>264</sup> in the Antarctic Treaty area and thus under the flag of a non-States parties.<sup>265</sup> According to its content Annex IV is tightly linked to the International Convention for the Prevention of Pollution from Ships (MARPOL)<sup>266</sup>, which is universal-

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<sup>262</sup> For this see 1.1.2.

<sup>263</sup> Art. 2 Annex IV Environmental Protocol: "This Annex applies, with respect to each Party, to ships entitled to fly its flag and to any other ship engaged in or supporting its Antarctic operations, while operating in the Antarctic Treaty area". This expansion does not apply to tourist ships according to this wording.

<sup>264</sup> For this see appendix II Overview: Tourist operators; Overview: Yachts in the Antarctic Treaty area.

<sup>265</sup> This Annex also does not apply to any "warship, naval auxiliary or other ship owned or operated by a State and used, for the time being, only on government non-commercial service", cf. Art. 11(1) Annex IV Environmental Protocol.

<sup>266</sup> International Convention for the Prevention of Pollution from Ships (MARPOL) of 2 November 1973; entered into force 2 October 1983 (1340 UNTS 62; BGBl. II 1982, 4). For this study, the most recent version of the consolidated edition published by the IMO is used; cf. MARPOL, Articles, Protocols and Unified Interpretations of the International Convention for the Prevention of Pollution of Ships, 1973 as modified by the 1978 and 1997 Protocols, IMO Publication Sales No. ID5202011, 2011.

ly devoted to marine protection.<sup>267</sup> According to Art. 14 Annex IV Environmental Protocol, MARPOL supersedes Annex IV.<sup>268</sup>

It has been suggested by some scholars that Annex IV Environmental Protocol is superfluous since it ultimately mostly adopts standards from MARPOL or even lags behind them.<sup>269</sup> In light of the current ratification status of the MARPOL-treaty, these views are to be endorsed. All States parties of the Environmental Protocol are also bound by MARPOL<sup>270</sup> and the regulations of the Annex IV Environmental Protocol are superseded by MARPOL.<sup>271</sup>

### **Liability arising from environmental emergencies pursuant to Annex VI of the Environmental Protocol**

The rules on the liability arising from environmental emergencies contained in Annex VI of the Environmental Protocol have not yet entered into force.<sup>272</sup> This annex is relevant to emergencies for tourist activities in Antarctica. Its applicability for tourist activities on vessels clearly derives from the wording of Art. 1 Annex VI Environmental Protocol.<sup>273</sup>

However, the applicability of the 'Liability Annex' with respect to other tourist activities, which are not undertaken with vessels, is questionable. Sporadically, it is concluded from the clear reference to tourist activities with vessels in the provision named above that *e contrario* tourist activities occurring on other means of transportation are not encompassed by the scope of Annex VI.<sup>274</sup> This view is not convincing. At least, a uniform intent of all (or of a majority) of the States parties in favor of a limitation of the applicability of said annex to seaborne tourism cannot be derived from the *travaux préparatoires*.<sup>275</sup> All that can be deduced from the *travaux préparatoires* is that the reference to tourist vessels was only inserted

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<sup>267</sup> A. Watts 1992, 285.

<sup>268</sup> See for details on this norm N. Krüger 2000, 103 et seq.

<sup>269</sup> Cf. e.g. N. Krüger 2000, 107 et seq.; also D. Rothwell 1994, 177.

<sup>270</sup> Available at: [www.imo.org/About/Conventions/StatusOfConventions/Documents/status-x.xls](http://www.imo.org/About/Conventions/StatusOfConventions/Documents/status-x.xls). Cf. for the status of ratification of MARPOL by the States parties to the Antarctic Treaty, Annex I.

<sup>271</sup> The conflict clause of Art. 14 Annex IV Environmental Protocol also includes all annexes to MARPOL. However, this does not mean that Annex IV Environmental Protocol is entirely superseded by MARPOL, cf. N. Krüger, Anwendbarkeit von Umweltschutzverträgen in der Antarktis, 2000, 105. MARPOL only bars the applicability of Annex IV Environmental Protocol if it contains regulative content for a subject; if this is not the case, then the barring effect ceases. However, such regulations are not evident according to the contemporary legal situation; see 3.2.3.

<sup>272</sup> The status of ratification is available at: [http://www.ats.aq/devAS/info\\_measures\\_approval.aspx?id=331&title=Measure%201%20%282005%29%20-%20ATCM%20XXVIII%20-%20CEP%20VIII,%20Stockholm&fecharec=06/17/2005&fa=0&lang=e](http://www.ats.aq/devAS/info_measures_approval.aspx?id=331&title=Measure%201%20%282005%29%20-%20ATCM%20XXVIII%20-%20CEP%20VIII,%20Stockholm&fecharec=06/17/2005&fa=0&lang=e).

<sup>273</sup> Art. 1(1) Annex VI Environmental Protocol: "The Annex shall apply to all tourist vessels that enter the Antarctic Treaty area".

<sup>274</sup> M. Johnson 2006, 42.

<sup>275</sup> ATCM XXVIII (2005), Final Report, para. 102: "In this context it was also proposed that it would be appropriate in the future to consider specifically including the overflight of tourist aircraft within the Annex"; a different view however, M. Johnson 2006, 42.

in order to restrict the originally broad scope of application of the liability annex<sup>276</sup> with respect to fishing vessels.<sup>277</sup> It thus remains to be seen whether a practice of the States parties that excludes non-seaborne tourism develops after the entry into force of the liability annex.<sup>278</sup> According to the broad wording of Art. 1 Annex VI Environmental Protocol, this study also assumes an application of this Annex to non-maritime tourist activities.

The Liability Annex does not prescribe a comprehensive legal regime for the liability for environmental damages in the Antarctic Treaty area instead it merely regulates the liability for environmental emergencies.<sup>279</sup> The States parties are firstly obliged to prevent such environmental emergencies through preventive measures and thus are obliged to require contingency plans from operators. If an environmental emergency arises, first the responsible operator has the obligation to “take prompt and effective response action” (Art. 5(1) Annex VI Environmental Protocol). Only in the event that such action of the operator does not occur, the State party of the operator and other State parties are “encouraged” to take effective response action. If an operator fails to take response action, it is liable to pay the costs of response action taken by a State party (Art. 6(1) Annex VI Environmental Protocol).

### 3.1.2 ATCM-rules

In contrast to the treaty law, more specific regulations on Antarctic tourism are to be found within the rules adopted by the Consultative States. The Antarctic Treaty regime today<sup>280</sup> differentiates between three forms ATCM-norms, i.e. the secondary rules of the international law for Antarctica.<sup>281</sup> Measures are

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<sup>276</sup> For the original draft see, ATCM XXVII (2004), WP 6, Art. 1: “This Annex shall apply to environmental emergencies in the Antarctic Treaty Area which relate to scientific research programmes, tourism and all other governmental and non-governmental activities in the Antarctic Treaty Area for which advance notice is required under Article VII (5) of the Antarctic Treaty, including associated logistic support activities, and to measures and plans for preventing and responding to such emergencies. *Optional additional sentence: It shall also apply to environmental emergencies, which arise from activities within the Antarctic Treaty Area to which the provisions of Article VII (5) of the Antarctic Treaty do not apply, to the extent that those environmental emergencies and their consequences are not regulated by other applicable treaties.*” (Italics were not added).

<sup>277</sup> M. Johnson 2006, 42; ATCM XXVII (2005), Final Report, para. 101; see also S. Vöneky 2008, 182 with further references.

<sup>278</sup> For this see for instance the national implementation of the liability annex by the United Kingdom, in which all vessels are included and an exception is only made for fishing and transits: Antarctic Act 2013 Chapter 15 Section 9(3).

<sup>279</sup> S. Vöneky 2008, 181.

<sup>280</sup> On the earlier, significantly less clear legal situation, see A. Watts 1992, 24 et seq.

<sup>281</sup> This terminology was introduced ATCM XIX (1995), Decision 1.



binding international law.<sup>282</sup> Resolutions, in contrast are non-binding so-called soft law.<sup>283</sup> By adopting decisions the Consultative States may regulate internal matters in a binding form.<sup>284</sup>

### 3.1.2.1 Measures

There are only two measures on Antarctic tourism, which have not yet entered into force.<sup>285</sup> The first one is a measure from 2004.<sup>286</sup> It contains on the one hand an obligation for tourist operators to develop contingency plans that ensure that medical care and evacuation of those involved can be guaranteed in the case of emergencies. On the other hand, it was stipulated that tourist operators have to be insured to cover any costs arising from the search and rescue of lost persons, medical care, and evacuation.

The second is a measure from 2009.<sup>287</sup> It obliges the States parties to the Antarctic Treaty to prohibit *landings* in Antarctica from vessels carrying more than 500 passengers.<sup>288</sup> However, the transit through the Antarctic Treaty area of such vessels remains permitted. Furthermore, it is to be ensured that the number of passengers on shore at one time does not exceed 100 persons. Besides, a requirement exists that only one tourist vessel may be at a landing site at one time.

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<sup>282</sup> ATCM XIX (1995), Decision 1, para. 1 (a): “A text which contains provisions intended to be legally binding once it has been approved by all the Antarctic Treaty Consultative Parties will be expressed as a Measure recommended for approval in accordance with paragraph 4 of Article IX of the Antarctic Treaty and referred to as a ‘Measure’”.

<sup>283</sup> ATCM XIX (1995), Decision 1, para. 3 (a): “A hortatory text adopted at an Antarctic Treaty Consultative Meeting will be contained in a Resolution”.

<sup>284</sup> ATCM XIX (1995), Decision 1, para. 2 (a): “[...] A decision taken at an Antarctic Treaty Consultative Meeting on an internal organizational matter will be operative at adoption or at such other time as may be specified, and will be referred to as a ‘Decision’”.

<sup>285</sup> Furthermore, there are many measures on the protected areas pursuant to Annex V Environmental Protocol; for this see 3.1.1.4. Indeed measures are passed at the ATCM, however they only enter into force if they are approved by all Consultative States (Art. IX(4) AT). This is not yet the case for any of the measures mentioned here.

<sup>286</sup> ATCM XXVII (2004), Measure 4. The ratification status of Measure 4 (2004) is available at: [http://www.ats.aq/devAS/info\\_measures\\_approval.aspx?id=321&title=Measure%204%20\(2004\)%20-%20ATCM%20XXVII%20-%20CEP%20VII,%20Capetown&fecharec=06/04/2004&fa=0&lang=e](http://www.ats.aq/devAS/info_measures_approval.aspx?id=321&title=Measure%204%20(2004)%20-%20ATCM%20XXVII%20-%20CEP%20VII,%20Capetown&fecharec=06/04/2004&fa=0&lang=e).

In ATCM XXXVII (2014), Resolution 7, the States parties were once again explicitly encouraged to approve the measure so that it can enter into force. The measure was also passed as a resolution at the same ATCM; ATCM XXVII (2004), Resolution 4.

<sup>287</sup> ATCM XXXII (2009), Measure 15. The ratification status of Measure 15 (2009) is available at: [http://www.ats.aq/devAS/info\\_measures\\_approval.aspx?id=432&title=Measure%2015%20\(2009\)%20-%20ATCM%20XXXII%20-%20CEP%20XII,%20Baltimore&fecharec=04/17/2009&fa=0&lang=e](http://www.ats.aq/devAS/info_measures_approval.aspx?id=432&title=Measure%2015%20(2009)%20-%20ATCM%20XXXII%20-%20CEP%20XII,%20Baltimore&fecharec=04/17/2009&fa=0&lang=e).

<sup>288</sup> This restriction was initially only reflected in resolutions; cf. for this ATCM XXX (2007), Resolution 4. It is further found in ATCM XXXIV (2011), Final Report, 318, Resolution 3 (2011) Annex, “General Guidelines for Visitors to the Antarctic”.

### 3.1.2.2 Decisions

The decisions on Antarctic tourism affect the Electronic Information Exchange System (EIES), which was already mentioned above and will be further explained later.<sup>289</sup>

### 3.1.2.3 Resolutions

In contrast to the legal instruments mentioned above, there are numerous resolutions on Antarctic tourism. These constitute so-called international soft law that, however, can unfold a significant factual binding effect, since they lay down the consent of States parties with respect to their content.<sup>290</sup>

For Antarctic visitors, the ‘General Guidelines for Visitors to the Antarctic’ are applicable.<sup>291</sup> These guidelines are divided into six parts – *i.e.* protection of Antarctic wildlife, respect of protected areas, respect of scientific research, preservation of a pristine Antarctica, safety measures, as well as landing and transport requirements – and contain 48 rules. These rules relate to the provisions of the Environmental Protocol, by concretizing and expanding them. For instance, the prohibition of harmful interference on the Antarctic environment is expanded by the rule that generally a distance of at least 5 meters to wildlife is to be kept.<sup>292</sup> In addition, taking souvenirs from Antarctica is prohibited<sup>293</sup> and visitors may not leave *any* garbage behind in the Antarctic Treaty area.<sup>294</sup> Furthermore, national authorities and tourist operators are encouraged to carry a risk assessment when conducting and monitoring tourist activities.<sup>295</sup>

A general set of rules that is applicable to all forms of tourism is also found in the ‘Non-Native Species Manual’.<sup>296</sup> Here also regulations of the treaty law – in this case the prohibition of introducing non-native species to Antarctica – are supplemented by these guidelines. States parties are to be supported in minimizing the risk of unintentionally introducing non-native species to Antarctica: Accordingly, States parties should take measures to prevent the introduction of such species, monitor the appearance of such species, and take counter measures.<sup>297</sup>

In addition, there are special resolutions on specific forms of tourism:

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<sup>289</sup> See for this 2.1.3.1.

<sup>290</sup> See 4.4.2.1.

<sup>291</sup> ATCM XXXIV (2011), Resolution 3, Annex. This resolution replaces earlier general regulations, see ATCM XVIII (1994), Recommendation XVIII-1, with respect to the concept of visitor see 1.2.1.

<sup>292</sup> ATCM XXXIV (2011) Resolution 3 Annex: “Maintain an appropriate distance from wildlife. While in many cases a greater distance may be appropriate, in general don’t approach closer than 5m. Abide by any guidance on distances in site specific guidelines”.

<sup>293</sup> ATCM XXXIV (2011) Resolution 3 Annex.

<sup>294</sup> ATCM XXXIV (2011) Resolution 3 Annex. This represents a clear intensification in comparison to the treaty rule for waste disposal; cf. 3.1.1.4.

<sup>295</sup> ATCM XXXVII (2014), WP 44.

<sup>296</sup> See for this ATCM XXXIV (2011), Resolution 6. These non-binding guidelines primarily aim for the prevention of the introduction of non-native species and serve to raise awareness for the problem. In these guidelines, many IAA-TO-measures were also included, see below 3.5.3.1.

<sup>297</sup> ATCM XXXIV (2009), Resolution 6, Attachment, 1 et seq.

There are special guidelines on aircraft operations,<sup>298</sup> which are intended to prevent the harmful impacts of such operation on birds. For this purpose, *inter alia* a vertical minimum distance to bird colonies of 610 meters and a horizontal minimum distance of 460 meters are stipulated as a general rule; in addition, night flights are to be limited. Furthermore, for maritime Antarctic tourism, there is a special resolution on the exchange of ballast water.<sup>299</sup> The latter was passed with a view to the prevention of the introduction of non-native species into Antarctica and essentially contains the regulations of a not-yet-in-force treaty of the International Maritime Organisation (IMO) on ballast water.<sup>300</sup> There are also specific resolutions on yacht and land-based tourism; however, regulations contained therein merely reiterate the stipulations of the Environmental Protocol without going beyond them.<sup>301</sup>

These regulations, which apply in the entire Antarctic Treaty area, are supplemented by special site guidelines. They apply only to individual sites, which are heavily frequented by tourists, and are adopted by the Consultative States on the recommendation of the Committee on Environmental Protection (CEP)<sup>302</sup>.<sup>303</sup> They partly intensify the general requirements and contain more specific regulations with a view to the special circumstances of the areas being regulated. The site guidelines include provisions on which landing sites are to be used, at which sites tourists may move freely, and which sites must be completely avoided. While many site guidelines are partly repetitions of general provisions of the Environmental Protocol,<sup>304</sup> others significantly increase the level of protection and decrease for instance the maximum number of tourists permitted at a site at any one time from 100<sup>305</sup> to 40 or even to 20.<sup>306</sup>

In summary, it can be concluded that a comprehensive regulation of Antarctic tourism by ATCM-rules is lacking to date. Advances and consideration to restrict Antarctic tourism to certain regions of tourist

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<sup>298</sup> ATCM XXVII (2004), Resolution 2, Annex.

<sup>299</sup> ATCM XXIX (2006), Resolution 3.

<sup>300</sup> ATCM XXIX (2006), Resolution 3, Annex, para. 1; see also ATCM XXIX (2006), Decision 2.

<sup>301</sup> ATCM XXXV (2012), Resolution 10, Attachment, Checklist of Yacht Specific Items for Preparing Safe Antarctic Voyages; id., Resolution 9.

<sup>302</sup> For this see Art. 11(f) Environmental Protocol.

<sup>303</sup> Currently, 37 site guidelines are in force; see ATCM XXXVI (2013), Resolution 3, Attachment, available at: [http://www.ats.aq/documents/recatt/att539\\_e.pdf](http://www.ats.aq/documents/recatt/att539_e.pdf).

<sup>304</sup> Cf. only Site Guideline Goudier Island, available at: [http://www.ats.aq/siteguidelines/documents/Torgersen\\_rev\\_e.pdf](http://www.ats.aq/siteguidelines/documents/Torgersen_rev_e.pdf).

<sup>305</sup> ATCM XXXII (2009), Measure 15.

<sup>306</sup> See for instance Site Guidelines Torgersen Island, available at: [http://www.ats.aq/siteguidelines/documents/Torgersen\\_rev\\_e.pdf](http://www.ats.aq/siteguidelines/documents/Torgersen_rev_e.pdf); see for instance Site Guideline Northeast Beach of Ardley Island, available at: [http://www.ats.aq/siteguidelines/documents/Ardley\\_e.pdf](http://www.ats.aq/siteguidelines/documents/Ardley_e.pdf).

interest<sup>307</sup> did not achieve consensus, just like the prohibition of tourist activities with more than minor or transitory environmental impacts.

### **3.1.3 An obligation of Antarctic Consultative States to effectively regulate Antarctic tourism**

An effective regulation of Antarctic tourism through concerted action of the Consultative States seems to be necessary due to the following two reasons:

First, the Consultative States act as ‘trustees’ of the entire international community in the Antarctic treaty area; second, the Consultative States agreed on a system of comprehensive protection of the entire Antarctic ecosystem by bringing into force the Environmental Protocol. Indeed, as has been shown, concrete obligations involving the restriction of Antarctic tourism cannot be deduced from the Environmental Protocol - with the exception of the prohibition of new permanent tourist infrastructure that is proposed by some<sup>308</sup> –, since the requirements contained therein are too general and broad. However, these are structural principles inherent to the Antarctic Treaty system; from which the programmatic obligation<sup>309</sup> follows that the Consultative States have to further develop the Antarctic Treaty system in order to appropriately and effectively regulate Antarctic tourism.

#### **3.1.3.1 The Consultative States as trustees of the international community**

The Consultative States have a special responsibility for Antarctica. They manage the entire area not in their own interest, but in the interest of the entire international community<sup>310</sup> and are thus obliged to act as trustees for the international community. Even the United Nations have repeatedly noted that the protection of the Antarctic environment and the unique conditions for Antarctic research affect the in-

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<sup>307</sup> For this cf. already ATCM VII (1972), Recommendation VII-9, para. 2(b): “They request all organizers of tourist groups, except in an emergency, to: [...] (b) land only within the Areas of Special Tourist Interest listed or defined in Annex B to this Recommendation”. Annex B of this resolution contains, however, no such areas, since the States parties could not reach an agreement in this regard. Similarly, in the following years the Consultative States could not agree in this issue. With respect to the earlier ATCM-instruments on Antarctic tourism see P. Beck 1990, 344 et seq.

<sup>308</sup> Cf. 3.1.1.4.

<sup>309</sup> This kind of obligation is also part of other treaties of international law; cf. in regard to the development of the international protection of human rights by the members of the United Nations, E. Riedel/J. Arend, 2012, Art. 55(c), para. 24.

<sup>310</sup> For details, see J. Kämmerer 1994, 421 et seq.

ternational community as a whole.<sup>311</sup> If the Consultative States cannot reach agreement on an effective regulation of Antarctic tourism, this could eventually undermine the legitimacy of the Consultative States and contradict their claim to manage Antarctica in the interest of the entire international community.<sup>312</sup>

### 3.1.3.2 An obligation to prevent future environmental damage

It is the objective of the Environmental Protocol to establish a comprehensive regime for the protection of the Antarctic environment as well as its dependent and associated ecosystems that shall ensure that human activities, which have negative impacts on the Antarctic environment, are restricted. Thereby the unique aesthetic values of Antarctica and its status as an invaluable region for scientific research are to be preserved.<sup>313</sup> Despite all uncertainty, it may safely be asserted that Antarctic tourism if largely unregulated, at least as far as the forms of tourism and the numbers of tourist are concerned, can at least potentially harm the Antarctic environment and already does so.<sup>314</sup> From this, a 'programmatic obligation' for the States parties of the Environmental Protocol can be implied, involving a future regulation of Antarctic tourism that largely leaves both the Antarctic environment as well as Antarctic research unimpaired. This also follows from the precautionary principle that applies pursuant to the Environmental Protocol:<sup>315</sup> It is acknowledged by the Consultative States that both – the precautionary principle as well as the obligation to prevent long-term degradation of the Antarctic environment – apply to Antarctic tour-

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<sup>311</sup> For this, cf. UNGA Res. 57/51, "Question of Antarctica" UN-Doc. A/Res/57/51 (2002), Preamble: "Conscious of the particular significance of Antarctica to the international community"; in general, see the resolutions on Antarctica of the General Assembly of the United Nations, UNGA Res. 38/77 "Question of Antarctica" UN-Doc. A/Res/38/77 (1983); UNGA Res. 39/152 "Question of Antarctica", UN-Doc. A/Res/39/152 (1984); UNGA Res. 40/156A-C "Question of Antarctica", UN-Doc. A/Res/40/156A-C (1985); UNGA Res. 41/88A-C "Question of Antarctica", UN-Doc. A/Res/41/88A-C (1986); UNGA Res. 42/46A-B "Question of Antarctica", UN-Doc. A/Res/42/46A-B (1987); UNGA Res. 43/83A-B "Question of Antarctica", UN-Doc. A/Res/43/83A-B (1988); UNGA Res. 44/124A-B "Question of Antarctica", UN-Doc. A/Res/44/124A-B (1989); UNGA Res. 45/78A-B "Question of Antarctica", UN-Doc. A/Res/45/78A-B (1990); UNGA Res. 46/41A-B "Question of Antarctica", UN-Doc. A/Res/46/41A-B (1991); UNGA Res. 47/57 "Question of Antarctica", UN-Doc. A/Res/47/57 (1992); UNGA Res. 48/80 "Question of Antarctica", UN-Doc. A/Res/48/80 (1993); UNGA Res. 49/80 "Question of Antarctica", UN-Doc. A/Res/49/80 (1994); UNGA Res. 51/56 "Question of Antarctica", UN-Doc. A/Res/51/56 (1996); UNGA Res. 54/45 "Question of Antarctica", UN-Doc. A/Res/54/45 (1999); UNGA Res. 57/51 "Question of Antarctica", UN-Doc. A/Res/57/51 (2002); UNGA Res. 60/47 "Question of Antarctica", UN-Doc. A/Res/60/47 (2005).

<sup>312</sup> For this see already S. Scott 2001. In the UNGA the accusation was brought forward, particularly during the 1980s that the Antarctic Treaty system is an instrument of Western power politics and Antarctica must be managed by the United Nations; for this cf. for instance P. Beck 1992, 308 et seq. These accusations, however, were not repeated in the last years; the accession of Malaysia, once the harshest critic of the Antarctic Treaty system, displays the growing acceptance of the regime; cf. to the political background B.A. Hamzah 2011; K. Dodds 2006, 66, see also K. Scott 2009, 14 et seq.

<sup>313</sup> See for this already ATCM XV (1989), Recommendation XV-1; cf. also the preamble of the Environmental Protocol and Art. 3(1), (2), and (4) Environmental Protocol.

<sup>314</sup> See 1.1.2 with further references.

<sup>315</sup> For this see 3.3; the precautionary principle materializes in particular within the prohibition of mineral resource activities (Art. 7 Environmental Protocol); this extreme application of the precautionary principle, which leads to a prohibition of the risky activity, conflicts with the lack of regulation of Antarctic tourism; see S. Scott 2001, 963.

ism.<sup>316</sup> Furthermore, they have reiterated the necessity for stronger regulation of tourism in the Antarctic Treaty area several times.<sup>317</sup>

### 3.1.4 Application of the Antarctic Treaty system with respect to third States

Whether the existing regulations also have a legal effect with respect to third States, *i.e.* non-States parties, is of practical significance for Antarctic tourism. Several of the vessels that operate in Antarctica sail under a so-called ‘flag of convenience’<sup>318</sup> into the Antarctic Treaty area and thus under the flag of a third State.<sup>319</sup> The provisions of the Antarctic Treaty system are not applicable to these vessels provided that they were not organized from the territory of a State party to the Antarctic Treaty.<sup>320</sup> There have already been tourist expeditions that were organized from third States to the Antarctic Treaty or the Environmental Protocol,<sup>321</sup> and it might be possible that they increase in the future.

#### 3.1.4.1 Third States

All States, which are not party to the Antarctic Treaty – and thereby not party to the Antarctic Treaty system, count as third States. The Antarctic Treaty currently has 51 States parties.<sup>322</sup> Thus, of the 193 member States of the United Nations<sup>323</sup>, 142 are third States to the Antarctic Treaty.

However, it has to be kept in mind that not all States parties to the Antarctic Treaty are bound to all other treaties of the Antarctic Treaty system. The Environmental Protocol was only ratified by 37 States,<sup>324</sup>

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<sup>316</sup> ATCM XXXII (2009), Resolution 7: “[...] Tourism should not be allowed to contribute to the long-term degradation of the Antarctic environment and its dependent and associated ecosystems, or the intrinsic natural wilderness and historical values of Antarctica. In the absence of adequate information about potential impacts, decisions on tourism should be based on a pragmatic and precautionary approach, that also incorporates an evaluation of risks”.

<sup>317</sup> For this see already ATCM VIII (1975), Recommendation VIII-9: “Acknowledging that tourism is a natural development in this Area and that it requires regulation”; cf. also ATME (2004), para. 28; ATCM XXXI (2008), Final Report, para. 216.

<sup>318</sup> Cf. D. König 2012-

<sup>319</sup> For this see below at 3.1.4.1.

<sup>320</sup> Cf. Art. VII(5) AT; see 2.2.3.1.

<sup>321</sup> Cf. already F. Auburn 1982, 115. It is also with respect to the application of the Environmental Protocol, the possibility that expeditions are organized in third States exist; the proof of this, however, is difficult. It is for example unclear whether the planning for a six-week expedition by the German brothers Alexander and Thomas Huber, who reside in Germany and engaged in mountain climbing in east Antarctica in 2008 (available at: <http://huberbuam.de/de/alpine-hoehepunkte/details/expedition-antarktis.html>), was conducted in a third State to the Environmental Protocol.

<sup>322</sup> Available at: [http://www.ats.aq/devAS/ats\\_parties.aspx?lang=e](http://www.ats.aq/devAS/ats_parties.aspx?lang=e).

<sup>323</sup> Available at: <http://www.un.org/en/members/growth.shtml>.

<sup>324</sup> The following States parties to the Antarctic Treaty are not bound by the Environmental Protocol: Austria, Colombia, Cuba, Denmark, Democratic People’s Republic of Korea, Estonia, Guatemala, Hungary, Malaysia, Papua New Guinea, Slovakia, Switzerland, and Turkey.

the Convention for the Conservation of Antarctic Marine Living Resources by only 30, and the Convention for the Conservation of Antarctic Seals by only even 16.<sup>325</sup>

### 3.1.4.2 Objective Regime / status treaty?

It is a well-established rule of general international law that a treaty only binds those States which have ratified it (Art. 34 Vienna Convention on the Law of Treaties, VCLT<sup>326</sup>). However, amongst scholars, it is disputed whether this general rule also applies to the Antarctic Treaty. Accordingly, it was argued that the Antarctic Treaty establishes an 'objective regime', whose binding effect extends beyond the States parties.<sup>327</sup> The characteristic of these treaties, which are referred to as status treaties (*Statusverträge*) by a part of the doctrine, is that they establish in the general interest a territorial order whose authority extends to third States.<sup>328</sup> For example, treaties that neutralize or internationalize certain territories or treaties establishing an international administration for certain territories have been included into this category.<sup>329</sup> According to this line of argumentation, an – albeit refutable – assertion of an objective order ensues from such a treaty regime,<sup>330</sup> as a result of which even third States are held to align their behavior in accordance with such treaties.

It is partly doubted by many whether objective regimes are to be seen as exceptions from the relativity of international obligations.<sup>331</sup> However, these doctrinal controversies notwithstanding, it may safely be assumed that the Antarctic treaty has not established such an objective regime.<sup>332</sup> The States parties of the Antarctic Treaty neither intended to settle the status of Antarctica for the international community as a whole,<sup>333</sup> nor can it be assumed that third States even tacitly accepted the administration of Antarc-

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<sup>325</sup> Available at: [http://www.ats.aq/devAS/ats\\_parties.aspx?lang=e](http://www.ats.aq/devAS/ats_parties.aspx?lang=e).

<sup>326</sup> Vienna Convention on the Law of Treaties of 23 May 1969, entered into force 27 January 1980, for the Federal Republic of Germany 20 August 1987 (1155 UNTS 331; BGBl. II 1985, 927).

<sup>327</sup> For this view, see for instance E. Klein 1980, 118 et seq., 353; A. Verdross/B. Simma 1984, MN. 769.

<sup>328</sup> An objective regime is approved if three requirements are present: (i) The acting States have territorial competence; (ii) the regulations are area-related and (iii) the regulations were adopted by the States parties in the general interest of the international community with the intention of an *erga omnes* effect. In detail and with further references see S. Vöneky 2001, 256 et seq.

<sup>329</sup> E. Klein 1980, 23.

<sup>330</sup> In detail on this E. Klein 1980, 131.

<sup>331</sup> The International Law Commission (ILC) decided, after controversial discussions, to not include a provision on objective regimes in the Vienna Convention on the Law of Treaties; for this see C. de Casadevante Romani 2012, paras. 9 et seq. Today, the view is predominantly held that the category of objective regimes as an exception to Art. 34 VCLT is non-existent in current international law; cf. only E. David 2011, Art. 34 paras. 7 et seq.

<sup>332</sup> This is approved by a majority of scholars: Cf. only B. Simma 1986, 200 et seq.; P. Birnie 1986, 239; R. Wolfrum 1984, 96; B. Bozek 1988, 466 et seq.; A. Watts, 1992, 295 et seq.; D. Rothwell 1996, 455; D. Biedermann 1999, 483 et seq.; S. Vöneky 2001, 322 et seq., 382 et seq.; K. Bastmeijer 2003a, 117; M. Shaw 2008, 95; A. Proelß 2012, MN 34 et seq.; A. Proelß 2013, para. 88; cf. also against a direct application vis à vis third States, R. Gruyer 1973, 223 et seq.; unclear in this respect M. Fitzmaurice 2002, 125

<sup>333</sup> D. Biedermann 1999, 482 with further references.

tica by the States parties to the Antarctic Treaty.<sup>334</sup> Furthermore, the very idea to comprehend the Antarctic Treaty as an objective regime contradicts the core of the Antarctic Treaty system, which precisely leaves the question of territorial sovereignty over Antarctica unsettled.<sup>335</sup> Ultimately, this means that all the instruments of the Antarctic Treaty system – including the Antarctic Treaty and the Environmental Protocol – do not have a binding effect for third States and only bind the respective States parties.

### 3.1.4.3 Customary international law

However, third States would be bound to provisions of the Antarctic Treaty system if those can be qualified as international custom.<sup>336</sup> Such a customary reception of parts of the Antarctic Treaty system or of the system as a whole can, however, cannot be assumed. Indeed, in this context it can be claimed that the Antarctic Treaty system has increased its legitimacy with respect to the international community since the accession of Malaysia – once one of the harshest critics of the Antarctic Treaty system – and the entry into force of the Environmental Protocol.<sup>337</sup> However, neither in the literature nor – and this is decisive – in State practice are indications found of a persuasion of third States that they are bound by the rules of the Antarctic Treaty system.<sup>338</sup> Without this *opinio juris*, however, an obligation of customary law cannot be assumed.

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<sup>334</sup> In this regard already D. Rothwell 1996, 455.

<sup>335</sup> B. Simma 1986, 192 et seq.

<sup>336</sup> It is generally accepted that a treaty norm can become customary law and as a result has a legal effect that extends beyond the States parties, cf. only S. Vöneky 2001, 382-391.

<sup>337</sup> M. Haward 2013, 19 f. On Malaysia cf. K. Dodds 2006, 65 et seq.; see for this also the UNGA resolutions in note 311. Cf. on this development in general A Proelß 2013, 400 et seq.: “Antarktis eher Weltpark als Clubraum.” As to the perspective of Greenpeace at the end of the 1980ies Greenpeace (“world park Antarctica”), cf. J. May 1989, 158 et seq.

<sup>338</sup> Cf. e.g. A. Proelß 2013, paras. 84 et seq.



### 3.1.5 Conclusion

As a conclusion of the analysis of the current international regulation of Antarctic tourism through the Antarctic Treaty system, the following can be stated:

- Antarctic tourism is a peaceful and thus generally admissible activity within Antarctica.
- Scientific research in Antarctica is privileged in comparison to Antarctic tourism and other ‘neutral’ activities; Antarctic tourism is not a privileged activity.
- Antarctic tourism is not subject to a general authorization requirement pursuant to the Environmental Protocol according to the prevailing view.
- It is disputed whether the Environmental Protocol prohibits the establishment of new permanent tourist infrastructure. Since, as is maintained here, substantial reasons of treaty interpretation indeed speak for such a prohibition and a large majority of the States parties also support this view; however consensus among all Consultative States as to this issue so far has not been achieved, one has to conclude that such a prohibition cannot yet be assumed.
- The annexes of the Environmental Protocol contain on the one hand regulations on special issues of environmental protection in Antarctica like the liability for environmental emergencies, waste disposal, and the prohibition of harmful interference with Antarctic flora and fauna. These general regulations are also applicable to Antarctic tourism. On the other hand, the Consultative States have the possibility to designate protected areas, a regulative instrument that allows geographically-restricted specific regulations on Antarctic tourism.<sup>339</sup>
- The soft law rules of the Antarctic Treaty system contain many specific norms that regulate Antarctic tourism. In some cases – like for instance the limitation of 500 passengers for landing vessels – these are rules which lay down concrete duties. However, no specifications of the Environmental Protocol with respect to the EIA are found. Particularly, soft law regulations are not based on a fundamental strategy as to how Antarctic tourism is to be regulated in the future. So far, neither recommendations for a numerical restriction of Antarctic tourists nor advances with respect to the incompatibility of certain forms of tourism with the Antarctic Treaty system were able to be adopted at the ATCM level. Thus, the Antarctic Treaty system has left the key questions unsettled of which type and extent of Antarctic tourism could be viewed as compatible with the high standard of environmental protection established by the Environmental Protocol.
- However, the Consultative States are obliged to comprehensively and effectively regulate Antarctic tourism due to their special responsibility for the Antarctic Treaty area and the obligation to establish a comprehensive system of environmental protection.
- Tourist activities are only subject to regulations of the Antarctic Treaty system provided that these either take place under the jurisdiction of a State party – this includes activities taking place on a vessel flying a State party’s flag –; or are organized by a State party, or depart from or are planned within the territory of a State party. It cannot be assumed that the Antarctic Treaty system has a third effect on non-States parties. Equally, no indications are found that the rules of the Antarctic Treaty system are applicable as customary international law.

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<sup>339</sup> Cf. K. Bastmeijer 2003a, 301 et seq. with further references.

## 3.2 The law of the sea – rules on the protection of the maritime environment and ship safety

Rules of the law of sea on maritime environmental protection are significant for maritime tourism in Antarctica. They do not contain specific regulations on Antarctic tourism however they do have a restricting effect on tourist activities in the Antarctic Treaty area. Accordingly, the introduction of the MARPOL-prohibition of sailing with heavy fuel in the Antarctic Treaty area led to a short-term restriction of tourist activities.

In the following, this study will examine the United Nations Convention on the Law of the Sea (UNCLOS)<sup>340</sup> as well as two IMO-treaties with specific rules on navigation in polar waters; these are the International Convention for the Prevention of Pollution From Ships (MARPOL)<sup>341</sup> and the International Convention for the Safety of Life at Sea (SOLAS).<sup>342</sup> Further, the Polar Code<sup>343</sup> of the IMO that will enter into force in the near future is analyzed.

### 3.2.1 Applicability of the law of the sea in the Antarctic treaty area

The applicability of rules of the law of the sea to the Antarctic Treaty area generally raises difficult legal questions due to the ‘freezing’ of territorial claims by the Antarctic Treaty.<sup>344</sup> However, the applicability of the treaties mentioned above is to be affirmed since norms of the law of the sea are, in any event, to be applied in the Antarctic Treaty area if they affect the high seas.<sup>345</sup>

### 3.2.2 United Nations Convention on the Law of the Sea (UNCLOS)

UNCLOS represents the superordinate legal framework for maritime environmental protection and ship safety.<sup>346</sup> Starting with Art. 192 UNCLOS – prescribing a ‘fundamental duty’ for the protection of the maritime environment<sup>347</sup> – UNCLOS also contains further framework provisions.<sup>348</sup> This framework is

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<sup>340</sup> United Nations Convention on the Law of the Sea (UNCLOS) of 10 December 1982, entered into force 16 November 1994, for the Federal Republic of Germany on the same date (1833 UNTS 396, BGBl. II 1994, 1798).

<sup>341</sup> See note 266.

<sup>342</sup> See note 79.

<sup>343</sup> Draft International Code for Ships Operating in Polar Waters (hereinafter referred to as Draft Polar Code) of 19 November 2014, Maritime Safety Committee, Ship Design and Construction Development of a Mandatory Code for Ships Operating in Polar Waters, IMO-Doc. MSC 94/WP.7.

<sup>344</sup> As to this issue cf. N. Krüger 2000, 293 et seq.

<sup>345</sup> Art. VI AT; see for this A. Höfelmeier/S. Vöneky 2011, available at: [http://www.jura.uni-freiburg.de/institute/ioeffr2/online-papers/FIP\\_5\\_2011\\_Meeresschutzzone.pdf](http://www.jura.uni-freiburg.de/institute/ioeffr2/online-papers/FIP_5_2011_Meeresschutzzone.pdf).

<sup>346</sup> Cf. only D. Rothwell/T. Stephens 2010, 342: “[UNCLOS] supplies the overarching legal framework for marine environmental protection which is supplemented by a multitude of other treaties and soft law instruments”.

<sup>347</sup> A. Proelß 2013, paras. 134 et seq.; cf. also M.L. McConnell/E. Gold 1991, 98.

<sup>348</sup> D. Rothwell/T. Stephens 2010, 343.

specified by the norms of the IMO-treaties.<sup>349</sup> The States parties, particularly the claimant States, have not employed a specific regime of UNCLOS for coastal States adjacent to ice covered areas.<sup>350</sup>

### 3.2.3 International Convention for the Prevention of Pollution from Ships (MARPOL)

The most important treaty on sea pollution is the MARPOL-convention.<sup>351</sup> It binds all States parties of the Antarctic Treaty<sup>352</sup> and contains special regulations for the Antarctic Treaty area.<sup>353</sup> E.g., tourist ships<sup>354</sup> are prohibited from discharging oil in the Antarctic Treaty area.<sup>355</sup> The implementation of this rule initially rests with the respective flag State. They are to ensure that ships flying their flag are equipped with tanks that are suited for [...] the retention of all sludge, dirty ballast, tank washing water, and other oily residue [...].<sup>356</sup> Furthermore, all tourist ships<sup>357</sup> under the flag of a State party are obliged to not use any heavy fuel oil in the Antarctic Treaty area.<sup>358</sup> Just like the discharging of oil, the discharging of all other noxious liquid substances<sup>359</sup> in maritime waters in the Antarctic Treaty area is prohibited.<sup>360</sup>

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<sup>349</sup> D. König 2012, para. 12; also W. Graf Vitzthum 2002, 163 et seq.

<sup>350</sup> Art. 234 UNCLOS stipulates the right of coastal States to take measures for the protection of maritime areas. The regulation was made with respect to the Arctic area. It is already disputed whether this norm is even applicable in the Antarctic context (probably for applicability G. Hafner 2006, para. 99; for a different view, see N. Krüger 2000, 110. At least, no State party has employed this regulation in Antarctica to date; it thus is without practical relevance for Antarctic tourism; see D. Rothwell 1994, 177.

<sup>351</sup> D. König 2012, para. 30. It is composed of a main text and six annexes. The main text merely regulates the applicability of the treaty; Annex I regulates the prevention of pollution by oil, Annex II the control of pollution by noxious liquid substances; Annex III the prevention of pollution by harmful substances carried by sea in packaged form, Annex IV the pollution by sewage from ships, Annex V the pollution by garbage from ships, and Annex VI the prevention of air pollution from ships. While Annex I and II are binding for all States parties of MARPOL, the other annexes must be separately ratified by States parties to MARPOL.

<sup>352</sup> For this cf. the statistics of the IMO, available at:  
<http://www.imo.org/About/Conventions/StatusOfConventions/Documents/Status-2014.pdf>.

<sup>353</sup> Such special regulations exist in Annex I, II, and V MARPOL.

<sup>354</sup> Something else applies according to Regulation 34 Annex I MARPOL only for tankers. The rule is, however, insignificant for tourist vessels.

<sup>355</sup> Regulation 15(4) Annex I MARPOL.

<sup>356</sup> Regulation 38(7)(1) Annex I MARPOL No. 2.

<sup>357</sup> An exception only applies to rescue ships and is thus insignificant for Antarctic tourism.

<sup>358</sup> Regulation 43 Annex I MARPOL: "With the exception of vessels engaged in securing the safety of ships or in a search and rescue operation, the carriage in bulk as cargo or carriage and use as fuel of the following: 1 crude oils having a density at 15°C higher than 900 kg/m<sup>3</sup>; 2 oils, other than crude oils, having a density at 15°C higher than 900 kg/m<sup>3</sup> or a kinematic viscosity at 50°C higher than 180 mm<sup>2</sup>/s; or 3 bitumen, tar and their emulsions, shall be prohibited in the Antarctic Treaty area, as defined in Annex I, Regulation 1.11.7. 2 When prior operations have included the carriage or use of oils listed in paragraphs 1.1 to 1.3 of this regulation, the cleaning or flushing of tanks or pipelines is not required." For this, see already an ASOC Press Briefing from June 2009, available at:  
[http://www.asoc.org/storage/documents/IMO/newimo/ASOC\\_heavy\\_fuel\\_oil\\_ban\\_briefing062409.pdf](http://www.asoc.org/storage/documents/IMO/newimo/ASOC_heavy_fuel_oil_ban_briefing062409.pdf).

<sup>359</sup> With respect to the term of other noxious liquid substances see Regulation 1(10) Annex II MARPOL.

The implementation of the MARPOL-convention also extends to the port States. Annex I MARPOL obliges the States to provide for facilities suitable “[...] for the reception of all sludge, dirty ballast, tank washing water, and other oily residues and mixtures” from all ships departing to or *en route* from the Antarctic Treaty area.<sup>361</sup>

The MARPOL-convention additionally contains special regulations for the Antarctic Treaty area on waste disposal:<sup>362</sup> All ship wastes in the Antarctic Treaty area are to be prevented and generally the disposal of wastes in the Antarctic Treaty area is forbidden.<sup>363</sup> An exception applies to food wastes. These may be disposed of either chopped up or grounded twelve nautical miles from the nearest land or ice-shelf.<sup>364</sup> Flag States are obliged to ensure that ships have sufficient reception facilities for wastes.<sup>365</sup> Furthermore, all States parties, whose ports are used by ships departing to or *en route* from Antarctica, are obliged to establish adequate facilities in order to be able to receive the wastes of such ships.<sup>366</sup>

### 3.2.4 International Convention for the Safety of Life at Sea (SOLAS)

The purpose of the SOLAS-convention – which binds all States parties to the Antarctic Treaty – is to guarantee for the safety of life at sea.<sup>367</sup> So far, it does not contain any special regulations for navigation in Antarctica, but only general rules on the navigation in polar waters. States parties to SOLAS<sup>368</sup> are merely obligated to issue weather information and ice warnings.<sup>369</sup> After the entry into force of the Polar Codes and the associated modifications of SOLAS, SOLAS could however become more significant for Antarctic tourism.<sup>370</sup>

Thus the question of the applicability of SOLAS is of practical significance. The applicability of SOLAS to yacht tourism is questionable since Regulation 3 of Chapter I Annex SOLAS could exclude the applicability of SOLAS to yachts *per se*:

*“The present regulations, unless expressly provided otherwise, do not apply to: [...] (v) Pleasure yachts not engaged in trade.”*

The wording of the provision, which only explicitly excludes pleasure yachts, seems at first to speak against such an extensive interpretation. This result is further supported by the interpretation of this rule

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<sup>360</sup> Regulation 15(8.2) Annex II MARPOL.

<sup>361</sup> Regulation 38(7)(1) No. 1 Annex I MARPOL.

<sup>362</sup> Regulation 5(1)(g) Annex V MARPOL.

<sup>363</sup> Regulation 5(2)(a) Annex V MARPOL.

<sup>364</sup> Regulation 5(2)(b) Annex V MARPOL.

<sup>365</sup> Regulation 5(5)(b) Annex V MARPOL.

<sup>366</sup> Regulation 5(a) Annex V MARPOL.

<sup>367</sup> D. Rothwell/T. Stephens 2010, 360.

<sup>368</sup> Cf. for this the statistics of the IMO, available at:

<http://www.imo.org/About/Conventions/StatusOfConventions/Documents/Status%20-%202014.pdf>.

<sup>369</sup> Annex Regulation 5(2)(2) Chapter V SOLAS.

<sup>370</sup> See 3.2.5.

by the States parties<sup>371</sup> Furthermore, the object and purpose of the rule as well as of the treaty also speak for such a result. SOLAS is intended to regulate the safety of life at sea as comprehensively as possible, thus exceptions from its scope of application are to be interpreted narrowly. Therefore, SOLAS-regulations are also applicable to yacht tourism if it is conducted commercially. Non-commercial yacht voyages are not subject to SOLAS. Thus SOLAS is always applicable to ships with 13 or more persons. With respect to ships with less than 13 persons – yachts – it is to be differentiated whether the yacht is a so-called ‘pleasure yacht’, which means that SOLAS would not be applicable, or another yacht, in which case SOLAS would be applicable.

### 3.2.5 IMO Polar Code

The idea of a binding Polar Code – comprising regulations protecting the maritime environment and providing for ship safety in polar waters – is supported by the Consultative States.<sup>372</sup> The long preparatory work for the Polar Code was completed in November 2014.<sup>373</sup> The Polar Code consists of regulations on safety measures on the one hand and rules for the protection of the environment on the other hand. Both topics of the regulation respectively contain binding and non-binding parts. The binding part on safety measures will be included in the SOLAS-convention, while the binding part on pollution prevention will be integrated into the MARPOL-convention.<sup>374</sup>

The core of the part on safety measures is the obligation of all ships to carry a polar ship certificate in polar waters.<sup>375</sup> This certificate shall only be issued to those ships that comply with the obligation of the Polar Code. Thus, a ship must be constructed to be able to withstand the dangers of polar waters.

The Polar Code differentiates between three categories of ships:

- Category A: A ship designed for operation in polar waters in at least medium first-year ice (thickness between 70-200 centimeters), which may include old ice inclusions;<sup>376</sup>
- Category B: A ship not included in category A, designed for operation in polar waters in at least thin first-year ice (thickness between 30-200 centimeters), which may include old ice inclusions;<sup>377</sup>

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<sup>371</sup> This is the view of the Marshall Islands, a State party to SOLAS: “As vessels engaged in trade, commercial yachts are subject to SOLAS, MARPOL, Load Line ‘69, ITC ‘69, COLREGS ‘72 and STW Convention requirements.” Available at: [www.register-iri.com/index.cfm?action=page&page=88](http://www.register-iri.com/index.cfm?action=page&page=88).

<sup>372</sup> ATCM XXXII (2009), Resolution 8, para. 2. This resolution represents a development in comparison to earlier stances of the ATCM to a shipping code. In 2004, the ATCM-States parties still insisted on the adoption of a non-binding code. However, this position was abandoned after the sinking of the *MS-Explorer*, which raised awareness for the need of action with respect to the safety at sea in the Antarctica area; for this see J. Jabour 2008, 97. Recently in this regard, see ATCM XXXVII (2014), Resolution 3. For the evolutionary history of this code, see also already L., Brigham 2000, 244 et seq.

<sup>373</sup> Available at: <http://www.imo.org/MediaCentre/HotTopics/polar/Pages/default.aspx>.

<sup>374</sup> See for the entire topic: Introduction, para. 4 Draft Polar Code.

<sup>375</sup> Part I-A Chapter I, para. 1.3.1 Draft Polar Code.

<sup>376</sup> Introduction, paras. 2.1; 2; 2.8 2.9 Draft Polar Code.

<sup>377</sup> Introduction, paras. 2.2; 2.4; 2.6; Draft Polar Code.

- Category C: A ship designed to operate in open water or in ice conditions less severe than those included in categories A and B (thickness of up to 30 centimeters).<sup>378</sup>

Ships in category C are excluded from the obligation of an ice-strengthened construction.<sup>379</sup> For ships in all categories, for instance the materials<sup>380</sup> and stability<sup>381</sup> are to be adapted to the special requirements of polar navigation.

The part on the measures for environmental protection for Antarctic waters does not substantially extend the level of environmental protection beyond the current level of protection guaranteed by MARPOL.<sup>382</sup> It thus should not have an impact on Antarctic tourism. Which impacts the regulative part of the Polar Code on safety has on maritime tourism in Antarctica cannot yet be foreseen.

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<sup>378</sup> Introduction, para. 2.3; 2 Draft Polar Code.

<sup>379</sup> Part I-A Chapter I, para. 3.3.2, para. 4., Draft Polar Code; critically with respect to this, ASOC et al., Briefing on the Draft International Code for Ships Operating in Polar Waters Part I A & B, 3. Norway unsuccessfully pushed for refusing access to ice-covered regions for ships of category C, which are not ice-strengthened; see IMO Maritime Safety Committee Ship Design and Construction, Proposal for amendments to the Draft Polar Code, of 21 March 2014, IMO-Doc. MSC 93/10/8; Maritime Safety Committee, Ship Design and Construction Development of a Mandatory Code for Ships Operating in Polar Waters, IMO-Doc. MSC 93/WP.7/Add.1, 4.

<sup>380</sup> Part I A Chapter 3, para. 3.2.1. Draft Polar Code.

<sup>381</sup> Part I A Chapter 4, para. 4.21. Draft Polar Code.

<sup>382</sup> ATCM XXXVII (2014), IP 70, 6.

### 3.2.6 Enforcement of the IMO-conventions on the basis of port State jurisdiction

The significance of the above mentioned IMO-conventions also results out from the fact that they can be enforced beyond the flag State-principle (Art. 94 UNCLOS) by relying on port State jurisdiction. Port State jurisdiction allows the enforcement of provisions of such treaties *vis à vis* a vessel flying a flag of third State as long as this vessel is within the port of State party.<sup>383</sup> This is particularly significant since all of the States adjacent to the Antarctic Treaty area are bound by the conventions mentioned above.<sup>384</sup>

Art. 218 UNCLOS allows the port State to sanction a ship, which violated MARPOL on the High Sea, if the ship is located in a port in its territory.<sup>385</sup> Furthermore, pursuant to Art. 219 UNCLOS, ships that violate safety obligations contained in SOLAS, maybe prevented from sailing. Art. 219 which refers to “applicable rules and standards relating seaworthiness” is also interpreted so that hereby violations of MARPOL can be asserted.<sup>386</sup> Port State control – *i.e.* the possibility of enforcing norms of the law of the sea through the port State with respect to ships located there – could also be conducted with respect to the Polar Code in the future. This represents an adequate means to guarantee the seaworthiness of seaborne tourism and is thus actively supported by the Consultative States.<sup>387</sup>

An analogous application of Art. 218 et seq. UNCLOS for violations of the Antarctic Treaty system – here particularly for a voyage into the Antarctic Treaty area without a national authorization or notification – is to be rejected.<sup>388</sup> Art. 218 UNCLOS represents an innovative exception in international law and is not the expression of a general legal conception.<sup>389</sup>

### 3.2.7 Conclusion

No rules that are tailored to the characteristics of Antarctic tourism are found in the regulations of the international law of the sea that have been examined. Nevertheless, these rules affect Antarctic tourism. Improved environmental protection standards increase the costs for operators of maritime tourist activities in Antarctica, which can – at least in the medium-term – lead to a decline in tourist numbers.

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<sup>383</sup> Cf. for the port State control in general, E.J. Molenaar 2012.

<sup>384</sup> Available at: <http://www.imo.org/About/Conventions/StatusOfConventions/Documents/Status%20-%202014.pdf>.

<sup>385</sup> See for details on the whole topic, T. McDorman 1998. Irrespective of Art. 218 UNCLOS, port State control is applied by numerous regional *ad hoc* agreements in order to enforce a uniform safety standard in ports; for this see T. McDormann 2000.

<sup>386</sup> For this cf. Secretariat IMO, Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization, IMO-Doc LEG/MISC.7, 2012, 9; 11.

<sup>387</sup> See ATCM XXXIII (2010), Resolution 7, according to which the States parties recommend “[t]hat the Parties proactively apply, through their national maritime authorities, the existing regime of port State control to passenger vessels bound for the Antarctic Treaty area”.

<sup>388</sup> ATME (2009), 53: “Some participants believed that voluntary assessments of vessels against other criteria, particularly obligations under ATS instruments could be helpful, but it was agreed that this could not be part of port State control”.

<sup>389</sup> As to this result, see R. Churchill/V. Lowe 1988, 259.

### 3.3 International environmental law

As has been elaborated, the standard of environmental protection established by the Antarctic Treaty system is higher than that of general international environmental law.<sup>390</sup> Thus provisions of ‘general’ environmental law will not increase the high level of environmental protection that the Antarctic Treaty area enjoys according to the Environmental Protocol. Although numerous international treaties – like for instance the Convention on the Conservation of Migratory Species of Wild Animals,<sup>391</sup> the Convention on International Trade in Endangered Species of Wild Fauna and Flora,<sup>392</sup> the International Convention for the Regulation of Whaling,<sup>393</sup> as well as the Convention on the Conservation of Albatrosses and Petrels<sup>394</sup> – contain special regulations for Antarctic flora and fauna, these either do not include rules relevant to tourism or do not extend beyond the level of environmental protection of the Environmental Protocol.<sup>395</sup> Something similar applies to the Convention on Biological Diversity<sup>396</sup> and the Convention Concerning the Protection of the World Cultural and Natural Heritage;<sup>397</sup> these conventions are also not specific enough to add regulative content to the Antarctic Treaty system as far as tourism is concerned.

More significant for Antarctic tourism than the treaty rules of international environmental law mentioned above are the general principles of international environmental law.<sup>398</sup> This concerns in particular the precautionary principle and the principle to prevent environmental harm. Both principles bind

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<sup>390</sup> P. Sands/J. Peel 2012, 596. Cf. also the opinion of Germany on the Environmental Protocol: *“Das von Deutschland am 4. Oktober 1991 unterzeichnete Umweltschutzprotokoll zum Antarktis-Vertrag enthält die schärfsten und umfangreichsten umweltschützenden Regelungen, die jemals für eine Weltregion in einem internationalen Übereinkommen erarbeitet wurden.”* [The Protocol on Environmental Protection to the Antarctic Treaty, which was signed by Germany on 4 October 1991, contains the strictest and most comprehensive regulations that have ever been established for a region of the world in an international treaty; translation by the authors], BT-Drs. 12/7491, 12.

<sup>391</sup> Of 23 June 1979, entered into force 1 November 1983, for the Federal Republic of Germany 1 October 1984 (1651 UNTS 333; BGBl. II 1984, 571).

<sup>392</sup> Of 2 March 1973, entered into force 1 July 1975, for the Federal Republic of Germany 22 June 1976 (933 UNTS 243; BGBl. II 1975, 777).

<sup>393</sup> Of 2 December 1946, entered into force 11 October 1948, for the Federal Republic of Germany 23 June 1982 (161 UNTS 72; BGBl. II 1982, 558).

<sup>394</sup> Of 19 June 2001, entered into force 1 February 2004 (2258 UNTS 257). The Consultative States have also taken measures for the protection of the southern giant petrel; ATCM XXX (2007), Resolution 2; ATCM XXIX (2006), Resolution 4.

<sup>395</sup> For instance, this applies to the Convention on the Conservation of Albatrosses and Petrels, Art. III(b). This convention merely demands the *control* of non-native species with respect to petrels and albatrosses and does not contain a general prohibition of their introduction; it only contains a very general obligation to limit the negative impacts on these animals (Art. III(c)).

<sup>396</sup> Of 5 June 1992, entered into force 29 December 1993, for the Federal Republic of Germany 29 December 1993 (1760 UNTS 79; BGBl. II 1993 1741).

<sup>397</sup> Convention Concerning the Protection of the World Cultural and Natural Heritage of 16 November 1972, entered into force 24 April 1974, for the Federal Republic of Germany 23 August 1976 (1037 UNTS 150, BGBl. II 1977, 215).

<sup>398</sup> For the difference between rules and principles, see P. Sands/J. Peel 2012, 188 et seq.



all States and thus extend the scope of the Antarctic Treaty system.<sup>399</sup> Moreover, both principles apply *ratione loci* to areas outside of national jurisdiction;<sup>400</sup> even States, which are not States parties of the Antarctic Treaty, are thus subject to these obligations of customary international law for the protection Antarctic environment.

The precautionary principles is found in Principle 15 of the Rio-Declaration and involves the imperative to already take measures to prevent irreversible environmental damage if a risk of such future damage exists.<sup>401</sup> For the regulation of Antarctic tourism this means, above all, that the risks of tourism for the Antarctic environment are to be determined precisely<sup>402</sup> and that measures to minimize such risks are to be taken by States even if there is a lack of full scientific certainty that tourists are the cause of environmental damage.

The principle to prevent environmental harm finds its expression *inter alia* in the second principle of the Rio-Declaration and entails the obligation to prevent environmental damage in other areas.<sup>403</sup> Applied to Antarctic tourism, this involves that all States, in whose territory tourist activities in the Antarctic Treaty area are planned, are obliged to prevent these activities from harming the Antarctic environment; more precisely, States are obliged to do what is in their power in order to prevent the occurrence of environmental damage in Antarctica.<sup>404</sup>

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<sup>399</sup> Cf. with respect to the customary nature of the principle of prevention of environmental harm; International Court of Justice (ICJ), Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 8 July 1996, para. 29. Good reasons may also be invoked in favor of the customary nature of the precautionary principle, cf. Seabed Disputes Chamber of the International Tribunal for the Law of the Sea (ITLOS), Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area, Advisory Opinion, 21 February 2011, para. 135. Still critical with respect to the customary nature, however P.Birnie/A. Boyle/C. Redgwell 2009, 163. These authors understand the precautionary principle as a general principle of international law.

<sup>400</sup> Cf. for the principle of prevention of harm: International Court of Justice (ICJ), Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 8 July 1996, para. 29. Further, for the precautionary principle, implicitly, Seabed Disputes Chamber of the International Tribunal for the Law of the Sea, Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area, Advisory Opinion, 21 February 2011, paras. 124 et seq.

<sup>401</sup> United Nations Conference on Environment and Development: Rio Declaration on Environment and Development of 14 June 1992, 31 ILM 874 et seq.: "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation".

<sup>402</sup> An EIA seems especially suited for determining which environmental damage to the Antarctic environment might potentially result from tourist activities.

<sup>403</sup> Rio Declaration on Environment and Development of 14 June 1992, cited above: "States [...] have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or areas beyond the limit of jurisdiction".

<sup>404</sup> With respect to this due diligence obligation, cf. T. Koivurova 2012, 236.

Furthermore, the principle of sustainable development is also of importance for Antarctic tourism: Ecological resources are to be used in a sustainable manner.<sup>405</sup> Even if the exact status of this rule under international law still remains disputed,<sup>406</sup> the normative content of the principle of sustainable development is of great significance for Antarctic tourism: Accordingly, as is indicated in the Environmental Protocol, the conservation of the Antarctic environment is to be secured for future generations.

### 3.4 Regional customary law on the protection of polar regions?

It could be possible that a uniform State practice with respect to the protection of polar areas does exist. Assuming a corresponding *opinio juris*, this State practice could establish regional customary law on the protection of polar-regions.<sup>407</sup> The sub Antarctic islands north of south 60 degrees latitude are under the sovereignty of seven States.<sup>408</sup> The tourism in these islands is regulated restrictively– differences in national regulations notwithstanding.<sup>409</sup> Particularly the number of visitors is restricted on the islands.<sup>410</sup> E.g. a visitation of the Australian Macquarie Island is only possible under strict conditions: There are fixed quotas; the island may not be entered by more than 100 visitors per year; either a governmental supervisor or an especially authorized supervisor must accompany the tourists; overnight stays are generally forbidden.<sup>411</sup> Similar regulations are found for the Heard Island and the MacDonald Islands.<sup>412</sup> Furthermore, there are also restrictive regulations for South Georgia. On these islands, which belong to the United Kingdom, overnight stays are prohibited and visits are only allowed with an authorization.<sup>413</sup>

These restrictive national regulative regimes with respect to tourism cannot, however, establish international rules. There are no indications that the stipulations were adopted in order to fulfill or establish international obligations. The strict regulations follow from the status of the protected areas as national parks. A corresponding regulative regime could only be established for the Antarctic Treaty area through new regulations of international nature or at least through soft law norms. Should the States parties be truly interested in a clear restriction of Antarctic tourism, then the national handling of sub-polar areas could, however, be a possible model for the future *de lege ferenda* for a stricter regime under international law.

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<sup>405</sup> Cf. the decision of the WTO Appellate Body, United States - Import Prohibition of Certain Shrimp and Shrimp Products, WT/DS/58/AB/R, 12 October 1998, paras. 129 et seq.

<sup>406</sup> Cf. U. Beyerlin 2012, para. 15.

<sup>407</sup> See for the entire topic J. Crawford 2012, 23 et seq.

<sup>408</sup> Argentina, Australia, Chile, France, New Zealand, South Africa, and the United Kingdom: J.M. Snyder/B. Stonehouse 2007, 144.

<sup>409</sup> P. Tracey 2007, 280.

<sup>410</sup> P. Tracey 2007, 280. Cf. with respect to the whole topic, already T. Bauer 2001, 33 et seq. Highly instructive as to this issue, E. Bertram/B. Stonehouse 2007, 287.

<sup>411</sup> Australian Government Department of the Environment Guidelines for Tourist Visits to Macquarie Island Nature Reserve and World Heritage Area, available at: <http://www.parks.tas.gov.au/file.aspx?id=6562>.

<sup>412</sup> Available at: <http://www.heardisland.aq/protection-and-management/management-plan/summary-of-measures>.

<sup>413</sup> Available at: <http://www.sgisland.gs/download/visitors/Information%20for%20Visitors%20to%20South%20Georgia%202013-14.pdf>.

## 3.5 IAATO-rules for Antarctic tourism

### 3.5.1 Necessity of, possibilities for and limits of regulation of tourism through IAATO

The need of regulation of Antarctic tourism through the tourism industry seems to follow up to now from the limited regulation of tourism by the Antarctic Treaty system. Decisions within the ATCM-framework are time-consuming and difficult to acquire due to the need for consensus.<sup>414</sup> Far-reaching regulations of tourism, comparable to those possible in a State, will therefore be difficult to attain in the near future. This is partly due to the unsettled territorial status of a large part of the Antarctic Treaty area.<sup>415</sup> Against this background, the regulation through tourist operators and their association is gaining in significance. Through this type of (self-)regulation,<sup>416</sup> this – albeit partial – regulative vacuum can be filled.<sup>417</sup>

It is also argued that if the regulation occurs through an association, like the IAATO, for its members (*i.e.* tourist companies), this private lawmaking can also be enforced with respect to the relevant actors (the companies and individual tourists).<sup>418</sup> It is further argued that the IAATO, in contrast to the Consultative States, makes proactive decisions;<sup>419</sup> lastly, the IAATO-framework also allows a binding effect beyond the companies of the States parties of the Environmental Protocol.<sup>420</sup>

The Consultative States partly support the regulation by the tourism industry due to these reasons.<sup>421</sup> In several cases – as with the 500 person-restriction for landing vessels – they, however, also adopt IAATO-regulations through their ATCM-rules.<sup>422</sup> This is an indication that the self-regulation does not always suffice, but that provisions of essential importance should be transferred into international law.<sup>423</sup> It has to be considered that the regulation through IAATO is limited. First, the IAATO-regulations only bind

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<sup>414</sup> Cf. 4.1.

<sup>415</sup> B. Stonehouse/J. Snyder 2010, 154; 164; ATME (2004), WP 4, 1.

<sup>416</sup> The term ‘self-regulation’ in this context seems to be misleading, since it is not tourists who set down the rules for themselves, but instead the involved companies; this is even more true, considering that IAATO also lays down rules for areas in Antarctica and this also no longer is part of ‘self’-regulation.

<sup>417</sup> J. Snyder 2007, 240.

<sup>418</sup> J. M. Snyder/B. Stonehouse 2010, 229, 234. For enforcement measures, see 3.5.3.1.

<sup>419</sup> ATME (2004), WP 4, 1, 3.

<sup>420</sup> See ATCM XX (1996), Final Report, paras. 83 et seq.

<sup>421</sup> ATCM XX (1996), Final Report, paras. 83 et seq.

<sup>422</sup> On the other hand, it can also be argued that the States parties to the Antarctic Treaty are hereby upgrading IAATO-rules, cf. J. Jabour 2011, 182 with further references; generally, B. Stonehouse/J. Snyder, 2010, 153 et seq.; D. Landau/J. Spletstoeser 2007, 203. This is, however, is a reciprocal relationship, since IAATO also adopts norms of the Antarctic Treaty System; for this see already D. Enzenbacher 1994b, 110; see also Article II Section D IAATO-Bylaws: “Objectives [...] to operate within the parameters of the Antarctic Treaty System, including the Antarctic Treaty and the Protocol on Environmental Protection to the Antarctic Treaty, as well as IMO Conventions and similar international and national laws and agreements”.

<sup>423</sup> D. Haase/M. Lamers/B. Amelung 2009, 423.

IAATO-members.<sup>424</sup> Second, the IAATO lacks sovereign enforcement powers – it can react repressively to cases of non-compliance up to a certain limit only.<sup>425</sup> Third, an immanent limit of all IAATO-measures also follows from the very structure of IAATO as a member-driven organization: The members of IAATO are profit-oriented companies; hence, rules that are aimed to endanger the profit of these companies or would have the effect to endanger the profit of these companies cannot be expected from the IAATO.

In order to conclusively evaluate the scope and content of IAATO-regulations, a comprehensive analysis is needed. Consequently, first the legal nature of IAATO and its regulative instruments will be elaborated subsequently the rules of the IAATO-framework will be analyzed. IAATO-regulations, with an identical content to rules contained in instruments adopted within the ATCM-framework, will not be specially included.

### 3.5.2 Legal nature of IAATO and IAATO-Bylaws

IAATO-guidelines are not rules of international law, but rules of internal law of a privately-organized legal entity subjected to the law of the United States.<sup>426</sup> The mode of operation of this entity is legally stipulated in its bylaws. All IAATO-members<sup>427</sup> are obligated to abide by the IAATO-Bylaws (Art. III Section B IAATO Bylaws). The general objectives and principles of the IAATO are the main normative basis for all IAATO-activities. *Inter alia*, the objective of IAATO is:

*“[t]o advocate, promote and practice safe and environmentally responsible travel to Antarctica”.*<sup>428</sup>

In doing so, the IAATO-Bylaws follow the principle that planned tourist activities may not have more than a minor or transitory impact on the Antarctic environment (Art. II Section E IAATO Bylaws). Furthermore, the bylaws contain several material requirements for the operation and planning of voyages. All IAATO-operators are expected to operate safely in Antarctica and required to have appropriate contingency plans, to submit post-visit site reports to their national authorities, and ensure that the means of transport are suitable for operation under Antarctic conditions (Art. X Section B IAATO-Bylaws).

For vessel operations, the IAATO-Bylaws additionally stipulate the following rules (Art. X Section C IAATO-Bylaws):

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<sup>424</sup> Cf. K. Bastmeijer 2003a, 281.

<sup>425</sup> J. M. Snyder/B. Stonehose 2010, 229, 234.

<sup>426</sup> Art. 1 Section 1 IAATO Bylaws. The IAATO is an association seated in Rhode Island, USA.

<sup>427</sup> IAATO-membership is divided into three categories: Members, associate members, and affiliate members. Full membership is only possible for companies that have been associate B1 members for at least one year and have abided by the IAATO-Bylaws. Associate members are divided into associate B1 members – operators who operate travel programs to the Antarctic Treaty area themselves – and associate B2 members – operators who book into other members’ programs. Affiliate members support the IAATO objectives (Art. III IAATO-Bylaws). Only (full) members are eligible to vote (Art. V Section A IAATO-Bylaws). Cf. for the entire topic, D. Landau/J. Spletstoesser 2007, 199 et seq. All types of members are bound to the IAATO-Bylaws; Art. 3 E IAATO Bylaws. Currently, there are 48 (full) members, 7 B1 associate members, 37 B2 associate members, and 24 affiliate members; see the following overview available at: <http://apps.iaato.org/iaato/directory/list.jsf;sessionId=13D52F0A95DDBB202610B2D96C1EF75C>.

<sup>428</sup> Art. II Section B IAATO-Bylaws.

- a captain or appointed ice pilot with Antarctic experience suitable for the intended operation must be on board;
- organizers of vessels carrying 201-500 passengers must abide by stringent restrictions on time and place of landing activities.

For aircraft operations of IAATO-members, the following regulations apply (Art. X Section D IAATO By-laws):

- a sufficient number of experienced aircraft ground staff are to be hired;
- IAATO-members are to cooperate with national Antarctic programs.

For land-based operations of IAATO-members, the following applies:

- a staff with adequate Antarctic experience must be hired;
- sufficient medical support must be ensured;
- organizers must – “as far as possible” – liaise in advance with national Antarctic programs if operating in the vicinity of their stations (Art. X Section E IAATO-Bylaws).

### 3.5.3 IAATO-guidelines

More specific regulations are found in IAATO-guidelines and other provisions. The material content of such regulations has to be separately analyzed from their binding effect and their enforcement.

#### 3.5.3.1 Application, supervision, and compliance

If an IAATO-member violates a bylaw, then it loses its ‘good standing’; this entails the loss of voting rights<sup>429</sup> and sanctions – *i.e.* reprimand, probation, and expulsion from the IAATO – can be ordered.<sup>430</sup> According to the wording of the bylaw, these sanction mechanisms however do not apply to violations of IAATO-guidelines, since these are not part of the IAATO-Bylaws. This is not changed by the fact that the IAATO-Bylaws refer to the IAATO-guidelines and IAATO-members are obliged to incorporate IAATO-guidelines and operative procedural provisions (Art. X Section C, D and E IAATO-Bylaws).

However, the IAATO-secretariat is factually able to track the location of IAATO-vessels over the IAATO-ship tracker.<sup>431</sup> In addition, operators that are applying for membership, have to take an IAATO-observer on board, who, if all admission conditions are fulfilled, supervises the observance of ATCM, national, and IAATO rules, and reports this to IAATO.<sup>432</sup> This report forms the basis of the decision of the IAATO-

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<sup>429</sup> The voting right for the vote for Executive Director; cf. Art. IV Section A IAAO-Bylaws.

<sup>430</sup> Art. III Sections E and F; Art. V Section A IAATO-Bylaws. A tourist operator was reprimanded in the 2006/2007 season since there were doubts whether the international and IAATO regulations for ship waste were observed; it was ordered to take a supervisor selected by the IAATO on board during a cruise. On this, cf. D. Haase/M. Lamers/B. Amelung 2009, 422.

<sup>431</sup> See IAATO Field Manual Chapter 7(i). IAATO-members are obliged to regularly report their location to the IAATO-secretariat. A direct supervision only exists for applications to be a (full) member of the IAATO; cf. note 427, Art. III Section C 2 IAATO-Bylaws.

<sup>432</sup> For this see Art. III Section C IAATO-Bylaws.

members to admit the applicant.<sup>433</sup> However, if a tourist operator already is a member (of category associate B1 or full member), then no further supervision or checking takes place.

### 3.5.3.2 Content

The content of the regulation in the IAATO-guidelines and procedural provision can be divided into five categories: Reporting obligations, safety measures, measures for environmental protection, measures with respect to specific activities and landing management.<sup>434</sup>

#### Reporting obligations<sup>435</sup>

First, IAATO-members must send post visit site reports not only to national notification and authorization authorities, but also to the IAATO itself.<sup>436</sup> Further, special occurrences like whale collisions,<sup>437</sup> seabird strikes,<sup>438</sup> crevices near landing sites,<sup>439</sup> encounters with non-IAATO visitors,<sup>440</sup> and general incidents during a voyage are to be reported to IAATO.<sup>441</sup> The messages to the IAATO are to be submitted electronically.

#### Safety measures

IAATO-internal law differentiates between three types of safety measures. They are, first, preventive safety measures: Here, general requirements prescribed by IAATO are integrated into the detailed contingency plans of the IAATO-members.<sup>442</sup> Second, specific safety measures on the operation of vessels<sup>443</sup> as well as on navigation in ice.<sup>444</sup> Third, all tourists are obliged to be certified by a physician that their health condition is appropriate for an Antarctic voyage.<sup>445</sup>

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<sup>433</sup> See IAATO Field Manual Chapter 9(b), (c), (d).

<sup>434</sup> For this study, all IAATO-provisions contained in the IAATO Field Manual 2013/2014 were consulted. This is a comprehensive manual that IAATO-members must carry on expeditions in Antarctica and which, in the view of the IAATO, contains all the relevant regulations for an Antarctic voyage.

<sup>435</sup> See also 2.1.3.1

<sup>436</sup> See IAATO Field Manual Chapter 3.

<sup>437</sup> See IAATO Field Manual Chapter 3(e).

<sup>438</sup> See IAATO Field Manual Chapter 3(g).

<sup>439</sup> See IAATO Field Manual Chapter 3(h).

<sup>440</sup> See IAATO Field Manual Chapter 3(i).

<sup>441</sup> See IAATO Field Manual Chapter 3(c), (d).

<sup>442</sup> See IAATO Field Manual Chapter 4(a), (c).

<sup>443</sup> IAATO Field Manual Chapter 7(f)(ii), (iii), (iv).

<sup>444</sup> IAATO Field Manual Chapter 7(h).

<sup>445</sup> At least on IAATO-vessels, it seems that having a physician on board is mandatory, see IAATO Field Manual Chapter 4(b).

## Measures for environmental protection

IAATO takes measures in order to limit the environmental impact of Antarctic tourism. Beside general non-binding recommendations for the observation of the Antarctic fauna, there are special guidelines for the observation of whales,<sup>446</sup> seals,<sup>447</sup> birds,<sup>448</sup> and for emperor penguin colony visits.<sup>449</sup> Particularly with respect to the protection of whales, the IAATO-guidelines significantly extend beyond the level of protection under international law. For instance, IAATO-vessels are obligated not to approach whales from behind.<sup>450</sup> IAATO-members are also encouraged to report the observance of a high mortality rate of wild animals and to take precautionary measures.<sup>451</sup>

Furthermore, there are IAATO-measures that concretize and operationalize the prohibition of the introduction of non-native species to Antarctica contained in the Environmental Protocol.<sup>452</sup> It is for instance stipulated in detail how operators are to clean the clothes and shoes of tourists before landing and which measures are to be taken in order to make tourists aware of the risk of contamination with non-native species.<sup>453</sup> IAATO-operators are also urged to react to the discovery of non-native species: The location is to be documented and the discovery is to be reported to the competent national authority.<sup>454</sup>

## Measures on specific tourist activities

IAATO also reacts to the diversification trend with respect to tourist activities. There are IAATO-guidelines on short overnight stays as well as for stays of multiple days.<sup>455</sup> For short overnight stays, mobile toilettes are to be assembled and all camping remains are to be removed; for longer camping, human wastes should, as far as possible, be brought back on board, but at least be disposed of in the sea or ice. In this context, it is remarkable that there are not yet any IAATO-guidelines for land-based tourism other than expedition cruises.<sup>456</sup> Semi-permanent camps are not encompassed by the guidelines.<sup>457</sup> Furthermore,

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<sup>446</sup> See IAATO Field Manual Chapter 5(e)(ii).

<sup>447</sup> See IAATO Field Manual Chapter 5(e)(iii).

<sup>448</sup> See IAATO Field Manual Chapter 5(e)(iv).

<sup>449</sup> See IAATO Field Manual Chapter 5(l).

<sup>450</sup> See IAATO Field Manual Chapter 5(e)(ii).

<sup>451</sup> See IAATO Field Manual Chapter 5(e)(i).

<sup>452</sup> See IAATO Field Manual Chapter 6.

<sup>453</sup> See IAATO Field Manual Chapter 6(a), (c); available at:

[http://iaato.org/c/document\\_library/get\\_file?uuid=2527fa99-b3b9-4848-bf0b-b1b595ecd046&groupId=10157](http://iaato.org/c/document_library/get_file?uuid=2527fa99-b3b9-4848-bf0b-b1b595ecd046&groupId=10157);  
<http://iaato.org/dont-pack-a-pest>.

<sup>454</sup> See IAATO Field Manual Chapter 6(e); further more IAATO-operators are urged to investigate the occurrence of barley on Deception Island (see IAATO Field Manual Chapter 6(h)).

<sup>455</sup> See also ATCM XXXVI (2013), WP 13.

<sup>456</sup> However – as the authors were told in a personal conversation – such guidelines are being elaborated by IAATO; a draft is not yet accessible.

<sup>457</sup> The guidelines on multi-night coastal camping stipulate that: “These guidelines apply to ship or yacht support based expedition activities which might include skiing, mountaineering, scientific work or any other land activities where camping ashore exceeds 24 hours” (see IAATO Field Manual Chapter 5(k)).

IAATO has passed a draft for guidelines on marathon events. In the current version, there is a recommendation that marathon routes be planned at least 500 meters away from large congregations of wild animals.<sup>458</sup>

## Landing management

Landing management is of significant importance for IAATO-tourism. Landing management is carried out in practice through the IAATO-ship scheduler.<sup>459</sup> This is an internet-based communication mechanism, which allows the targeted landing sites to be designated and 'booked' before the Antarctic voyage. IAATO-vessels are not obliged to use the ship scheduler however it is in their proper interest to do so: Thereby it can be ensured that, as is demanded by the IAATO, not more than one vessel is at a landing site at one time. Thus, the IAATO-secretariat is put in the position to gain an overview of IAATO-activities over a longer time period with respect to specific sites.<sup>460</sup>

### 3.5.4 Conclusion

In summary, it is to be concluded that the IAATO has established a comprehensive body of rules on Antarctic tourism that, in several cases, concretizes and supplements the legal framework on Antarctic tourism under international and domestic law. Not least because of the special status of the Antarctic Treaty area and the lacking regulation of Antarctic tourism through the Consultative States, supplementary regulations through the tourism industry were necessary, even though such (self-)regulation is not able to completely fill the *lacunae* left by international regulations. With respect to its lawmaking, IAATO seems to react to the discussions of the ATCM-States in certain fields and incorporates ATCM working- and information papers into its own regulative framework. To what extent the IAATO-members observe these rules cannot be stated, since the observance is neither monitored by the IAATO nor by anyone else. In addition, there are regulative *lacunae* with respect to land-based tourism with air support.

## 3.6 Domestic implementation for tourist activities by the States parties

### 3.6.1 Overview - authorization- and sanction mechanisms

The following part outlines domestic procedures implementing the EIA as contained in Art. 8 of the Environmental Protocol in conjunction with its Annex I as far as tourist activities are concerned.<sup>461</sup> It is only by focusing on these domestic procedures that one might assess how the different EIAs contribute to a restriction of Antarctic tourism.<sup>462</sup> In this context, national procedures in order to prevent and sanction

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<sup>458</sup> IAATO, Multi Night Coastal Camping Guidelines in Antarctica, IAATO-Guidelines for Short Overnight Stays in Antarctica (see IAATO Field Manual Chapter 5(h)), both passed in April 2013. See D. Haase/M. Lamers/B. Amelung 2009, 417.

<sup>459</sup> Cf. J. Jabour 2011, 184. This obviously leads to conflicts with yachts that do not 'book' their landing sites via the ship scheduler and sometimes block landing sites; see as to this, IAATO-Recommendation, Etiquette Between Ships & Yachts, 2011.

<sup>460</sup> ATCM XXXII (2009), IP 33, 4.

<sup>461</sup> As to national procedures implementing the Environmental Protocol cf. R. Wolfrum/S. Vöneky 2003.

<sup>462</sup> A. Hemmings/R. Roura 2003, 21.



contraventions against the EIA will also be examined. The implementation procedures of ten States with different legal systems will be examined comparatively. Differing legal traditions will be taken into account and claimant as well non-claimant States will be analyzed.

These national procedures are of decisive importance for anyone concerned with the legal possibilities of restricting Antarctic tourism, since the provisions of the Environmental Protocol are not directly applicable in domestic law.<sup>463</sup> They are not self-executing<sup>464</sup>.<sup>465</sup> Thus, they require implementation into domestic law in order to apply to individuals. This can be *inter alia* derived from Art. 1(1) Annex I Environmental Protocol whereby States are required to assess the environmental impact of any activity in accordance with national procedures.<sup>466</sup> Thus, only an effective national implementation by the States parties of these provisions can guarantee that individuals and companies comply with the obligations of the Antarctic Treaty system.

### 3.6.1.1 Argentina

Argentina implements the Environmental Protocol by Disposición 87/2000.<sup>467</sup> This statute applies to Argentinian nationals as well as Argentinian legal entities, ships and aircrafts.<sup>468</sup> It also applies to nationals of other States residing permanently in Argentina<sup>469</sup> and activities organized therefrom.<sup>470</sup> The applicability of the statute is excluded for emergencies.<sup>471</sup>

In Argentina, there is no general legal requirement of authorization for all activities in Antarctica.<sup>472</sup> Operators are, however, obligated to submit an EIA to the competent authority (Dirección Nacional del Antártico).<sup>473</sup> Whether the statute contains a margin of discretion for the EIA remains unclear. The statute contains some of the adverse effects that States parties in accordance with Art. 3(2)(b) Environmental

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<sup>463</sup> This does not apply however to all norms contained in the Environmental Protocol; as to exceptions cf. e.g. with regard to Art. 6 Annex VI Environmental Protocol; S. Vöneky 2013b, 27.

<sup>464</sup> An international obligation is only self-executing, *i.e.* directly applicable, if the norm can be applied without requiring further domestic measures prescribed by national law.

<sup>465</sup> See L. Pineschi 2001, 365; cf. for such a result A. Proelß/E. Blitzka/J. Oliva 2012, 9; B. Wegener 2013, 47; K. Bastmeijer 2003a, 29, 67. For a different view however, see A. Epiney/J. Heuck/B. Pirker 2013, 78.

<sup>466</sup> Provisions with a similar wording of other treaties were interpreted as to exclude any self-executing character; cf. P. Dallier/M. Forteau/A. Pellet (N. Quoc Dinh †) 2009, para. 149 referring to Art. VII(1) of the Convention on the Prohibition of the Development, Stockpiling and Use of Chemical Weapons and their Destruction of 13 January 1993, entered into force 29 April 1997, (1974 UNTS 45): "Each State Party shall, in accordance with its constitutional processes, adopt the necessary measures to implement its obligations under this Convention".

<sup>467</sup> Protocol Al Tratado Antártico sobre protección del medio ambiente Disposición 87/2000 Publicada en el Boletín Oficial N°29.456 1ª. Sección. Lunes 7 de agosto de 2000.

<sup>468</sup> Art. 1(a) & (b) Disposición 87/2000.

<sup>469</sup> Art. 1(d) Disposición 87/2000.

<sup>470</sup> Art. 1(e) Disposición 87/2000.

<sup>471</sup> Art. 40 Disposición 87/2000.

<sup>472</sup> For exceptions cf. Art. 4(a)-(d) Disposición 87/2000.

<sup>473</sup> Art. 2 Disposición 87/2000.

Protocol are to avoid. The wording of this provision, however, suggests that these stipulations would only apply to specific activities for which authorization is required – such as the entering of an ASPA or the taking of flora and fauna – <sup>474</sup> and hence would not apply to activities for which a mere EIA is to be carried out <sup>475 476</sup>.

The responsible operator of a company is obligated to submit an EIA corresponding to the requirements contained in Annex I of the Environmental Protocol to the competent authority. <sup>477</sup> If the competent authority concludes that the activity will have less than a minor or transitory impact, the activity may proceed. <sup>478</sup> If the planned activity could have a minor or transitory impact, the operator is required to conduct an *Evaluación Medioambiental Inicial* (this corresponds to an IEE). <sup>479</sup> If it results from this or any other source that the activity could have more than a minor or transitory impact, the operator is required to carry out an *Evaluación Medioambiental Global* (this corresponds to an CEE). <sup>480</sup> The procedure is – several exceptions notwithstanding – not laid out in detail by the statute. The provisions of the Environmental Protocol might be considered supplementary. <sup>481</sup> There are no stipulations on administrative or criminal offences within the Disposición.

### 3.6.1.2 Australia

Australia implements the EIA by the Antarctic Treaty (Environment Protection) Act 1980 <sup>482</sup> in conjunction with the Antarctic Treaty (Environment Protection) (Environmental Impact Assessment) Regulations 1993 <sup>483 484</sup>. These rules apply to the territory in Antarctica claimed by Australia, <sup>485</sup> Australian expeditions, legal entities as well as vessels flying an Australian flag and aircrafts registered in Australia. <sup>486</sup> Activities which have been authorized by other States parties are excluded from the statute's scope of applica-

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<sup>474</sup> Art. 6 Disposición 87/2000.

<sup>475</sup> These activities can be found in Chapter III of the der Disposición 87/2000. Art. 3(2)(b) however is implemented by Chapter II Disposición 87/2000.

<sup>476</sup> A similar problem relates to the question whether an EIA has to be conducted for an activity that has already been subjected to an EIA of another State. Foreign authorizations only lead to an exemption from the applicability of special authorizations for certain activities – e.g. the taking of fauna and flora out of Antarctica or the introduction of non-native flora and fauna to Antarctica – but do not entirely preclude the applicability of the EIA; see as to this issue Art. 5(a) Disposición 87/200. A similar provision cannot be found with regard to the EIA.

<sup>477</sup> Art. 9 Disposición 87/2000.

<sup>478</sup> Art. 10(1) Disposición 87/2000.

<sup>479</sup> Art. 11 Disposición 87/2000.

<sup>480</sup> Art. 12 Disposición 87/2000.

<sup>481</sup> Art. 9 Disposición 87/2000.

<sup>482</sup> Antarctic Treaty (Environment Protection) Act 1980 Act No 103 of 1980 as amended.

<sup>483</sup> Antarctic Treaty (Environment Protection) (Environmental Impact Assessment) Regulations 1993 Statutory Rules 1993 No. 115 as amended under the Antarctic Treaty (Environment Protection) Act 1980.

<sup>484</sup> As to this issue see L. Fallon/L. Kriwoken 2005.

<sup>485</sup> Section 4(1)(a) Antarctic Treaty (Environment Protection) Act 1980.

<sup>486</sup> Section 4(1)(b); Section 3(1) Antarctic Treaty (Environment Protection) Act 1980.

tion.<sup>487</sup> The competent authority (the Minister) may at its proper discretion exclude an activity from the authorization procedure if the activity has a negligible effect on the Antarctic environment.<sup>488</sup> Mineral resource activities are similarly excluded from the procedure.<sup>489</sup>

The Australian law merges the EIA with an authorization procedure. The margin of discretion for the authorization, which the competent national authority enjoys, includes the environmental principles contained in Art. 3 of the Environmental Protocol.<sup>490</sup> Firstly the planned activity is subject to a “preliminary determination of likely impact of activity”. Here the competent authority has to assess, whether the planned activity is likely to have more than a minor or transitory effect, a minor or transitory effect or less than minor or transitory, *i.e.* a ‘negligible’ effect.<sup>491</sup> If the competent authority concludes that the activity will have negligible effect, an authorization has to be issued.<sup>492</sup> Otherwise – *i.e.* in the case that it is assessed that the planned activity is likely to have a transitory or minor impact – the operator has to conduct an IEE.<sup>493</sup>

The competent authority assess on this bases whether the activity is likely to have transitory or minor impact or crosses this threshold. In the former case, the competent authority is required to authorize the planned activity.<sup>494</sup> In the latter case, a CEE will be conducted. If the competent authority concludes that the activities can be conducted in accordance with the environmental principles of the Environmental Protocol contained in Art. 3, an authorization has to be issued.<sup>495</sup> Contraventions against the CEE or the IEE will be sanctioned with a fine<sup>496</sup>

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<sup>487</sup> See the wording of Section 7(1) Antarctic Treaty (Environment Protection) Act 1980: “Notwithstanding any other law, but subject to the regulation, no action or proceeding lies against any person for or in relation to anything done by that person to the extent that is authorized by a permit or a recognized foreign authority”.

The term ‘recognized foreign authority’ is defined Section 3(1) Antarctic Treaty (Environment Protection) Act as a “permit or arrangement that: (a) authorizes the carrying on of an activity in the Antarctic, and (b) has been issued, given or made by a Party (other than Australia) to the Madrid Protocol that has accepted under that Protocol the same obligations as Australia in relation to the carrying on of that activity in the Antarctic”.

<sup>488</sup> Section 12 C(1) Antarctic Treaty (Environment Protection) Act 1980.

<sup>489</sup> Section 12 C(1) Antarctic Treaty (Environment Protection) Act 1980.

<sup>490</sup> Section 7 A, Section 3(1) Antarctic Treaty (Environment Protection) Act 1980

<sup>491</sup> Section 12 E(a) Antarctic Treaty (Environment Protection) Act 1980.

<sup>492</sup> Section 12 F(1)(a) Antarctic Treaty (Environment Protection) Act 1980: “If the Minister determines that the activity is likely to have no more than a negligible impact on the environment, the Minister must, by notice in writing, authorise the proponent of the activity to carry on the activity”.

<sup>493</sup> Section 12 G(1) Antarctic Treaty (Environment Protection) Act 1980. Die genaue Ausgestaltung der IEE findet sich in Part 3 der Antarctic Treaty (Environment Protection) (Environmental Impact Assessment) Regulations 1993.

<sup>494</sup> Section 12 J(1) Antarctic Treaty (Environment Protection) Act 1980. The implementation of the EIA can be found in Part 4 Subregulation 8 der Antarctic Treaty (Environment Protection) (Environmental Impact Assessment) Regulations 1993.

<sup>495</sup> Section 12 L(2); Section 3(1) Antarctic Treaty (Environment Protection) Act 1980.

<sup>496</sup> Subregulation 5 Antarctic Treaty (Environment Protection) (Environmental Impact Assessment) Regulations 1993.

### 3.6.1.3 Chile

With regard to Chile it is not clear, whether there is a national procedure implementing the EIA for tourist activities, as the national regulation implementing the EIA for tourism is not accessible.<sup>497</sup>

### 3.6.1.4 France

France implements the Environmental Protocol within a special part of the Code de l'environnement.<sup>498</sup> The statute is applicable for every person carrying out an activity in the territory in Antarctica claimed by France,<sup>499</sup> French nationals and legal entities,<sup>500</sup> vessels flying the French flag as well as aircrafts registered in France,<sup>501</sup> and activities which were organized within the French territory.<sup>502</sup>

The applicability of the statute is excluded for innocent passage and overflights in accordance with international law,<sup>503</sup> an activity authorized by another State party<sup>504</sup> and policing or defense activities of the French State.<sup>505</sup> The French procedure distinguishes between an authorization (*autorisation*) and a mere notification (*déclaration*).<sup>506</sup> An authorization is only required for activities that are predicted to have at least a minor or transitory impact.<sup>507</sup> All activities, however, that will have less than a minor or transitory impact only require a notification and no authorization.<sup>508</sup>

The applicant has to carry out an EIA prior to the authorization procedure.<sup>509</sup> The competent authority (the administration of the Terre australes et antarctiques français) only authorizes the planned activity if

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<sup>497</sup> The decree to ratify the Environmental Protocol came into force at 18 February 1998, Promulga el Protocolo al Tratado Antártico Sobre Protección del Medio Ambiente, Decreto No. 396.

<sup>498</sup> Livre VII de Code de l'environnement français, Ordonnance n° 2000-914 du 18 septembre 2000 relative à la partie Législative du code de l'environnement; Journal Officiel de la République française 21 Septembre 2000.

<sup>499</sup> Art. L711-3 lit.a Code de l'environnement français.

<sup>500</sup> According to the statute French legal entities refers to legal entities that have been constituted according to French law, irrespective, whether the planned activity has been organized in France or other places.

<sup>501</sup> Art. L711-3(b) Code de l'environnement français.

<sup>502</sup> Art. L711-3(c) Code de l'environnement français.

<sup>503</sup> Art. L711-2(2) Code de l'environnement français.

<sup>504</sup> Activités autorisées par une autre partie au Protocole de Madrid. Art. L711-2(2) Code de l'environnement français.

<sup>505</sup> Art. L711-2(2) Code de l'environnement français.

<sup>506</sup> Art. R712-1 Code de l'environnement français.

<sup>507</sup> Art. L712-1; Art. R 712-9 et seq. Code de l'environnement français. According to Art. R 712-3, this is the case when facilities are created or modified, plants are imported, animals or other organisms into Antarctica are brought to Antarctica, constructions that modify the state of places are carried out, motors are employed on land, plants or animals are taken from Antarctica or an ASPA is penetrated.

<sup>508</sup> Art. L712-1; Art. R712-3 et seq. Code de l'environnement français.

<sup>509</sup> Art. R-712-10 I; Art. R712-10 I N° 3; Art. R712-12(for the IEE) or Art. R712-13 (for the CEE).

it is in accordance with the Antarctic environment.<sup>510</sup> All other activities – especially scientific ones – are subject to a notification procedure.<sup>511</sup> The planner of the activity merely has to communicate the planned activity to the competent authority.<sup>512</sup> Subsequently the authority has a period of two months in order to prohibit the planned activity.<sup>513</sup>

It is decisive that the *Tribunal de Grande Instance de Paris* in a judgment on 6 February 2014 interprets the statute so that tourist activities are to have more than minor or transitory impacts *per se* and thereby are always subject to an authorization.<sup>514</sup> In this judgment, a skipper was sentenced to pay a 10.000 Euro fine because he travelled to Antarctica without an authorization. Had the Court come to the conclusion that the activity would have had less than minor or transitory impacts, no offense would have had been committed, since the French statute does not penalize activities without a notification.<sup>515</sup> This is the first judgment by a French court concerned with a violation of the Environmental Protocol .

Furthermore, a person who violates the Code de l'environnement or the Environmental Protocol may receive an admonishment (avertissement). In this case no authorization for an activity in Antarctica will be issued for the next five years.<sup>516</sup>

The planning of or participation in an activity that has not been authorized or that is carried out in contravention of the authorization is to be punished with up to one year of imprisonment.<sup>517</sup>

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<sup>510</sup> Art. L712-2 Code de l'environnement français: "[...] l'autorisation ne peut être accordée que s'il résulte que l'impact de l'activité est compatible avec la conservation de l'environnement de l'antarctique".

<sup>511</sup> Art. R712-3(2) Code de l'environnement français.

<sup>512</sup> Art. R712-5 Code de l'environnement français.

<sup>513</sup> Art. R712-6 Code de l'environnement français.

<sup>514</sup> Jugement Correctionnel de Tribunal Correctionnel de Paris de 6 Février 2014, 3: "L'article 8 du protocole de Madrid distingue trois types d'activités définies selon que leur impact est moindre que mineur ou transitoire, mineur ou transitoire, mineur ou transitoire ou supérieure à un impact mineur ou transitoire. L'article L712-1 du code de l'environnement prévoit que les activités ayant sur l'environnement en Antarctique un impact au moins mineur ou transitoire sont soumises à l'autorisation tandis que toutes les autres activités sont soumises à déclaration préalable. [...] L'article L713-1 du code de l'environnement sanctionne l'exercice d'une activité sans l'autorisation prévue par l'article L-712- du même code. La question est donc de savoir de quelle catégorie relève l'activité touristique de voilier en cause. Il ressort des dispositions de l'article R712-3 que les activités relevant du régime de la déclaration préalable sont énumérées dans un arrêté ministériel. Or [cet] arrêté [...] ne mentionne que des activités scientifiques ou para scientifiques. Il apparaît donc que les activités touristiques ne relèvent pas du régime de déclaration préalable mais du régime de l'autorisation".

<sup>515</sup> Vgl. Art. L713-5 Code de l'environnement français.

<sup>516</sup> Art. L713-4 Code de l'environnement français.

<sup>517</sup> Art. L713-5 Code de l'environnement français.

### 3.6.1.5 Japan

Japan implements the Environmental Protocol through the 'Law relating to the Protection of the Antarctic Environment'.<sup>518</sup> The statute applies to all Japanese nationals, individuals residing in Japan, Japanese legal entities and foreign legal entities which have an office in Japan.<sup>519</sup> The statute distinguishes between activities subject to an authorization and those activities which are not subject to an authorization. The latter applies to activities which have been authorized by another State party to the Environmental Protocol whose procedure is comparable to that of Japan. The fact that such activities are excluded from the requirement of authorization does not mean, however, that the statute *in toto* would not be applicable; the competent authority (Director General of the Environment Agency)<sup>520</sup> has to be notified of the planned activity in cases where it has previously been authorized by another State party.<sup>521</sup> In particular, the competent authority is to be informed about which State party has authorized the said activity.<sup>522</sup> In all other cases,<sup>523</sup> an authorization procedure has to be carried out. The margin of discretion of the competent authority seems to include the avoidance of adverse environmental impact as contained in Art. 3 (2)(b) Environmental Protocol.<sup>524</sup>

The applicant first has to submit an application to the competent authority.<sup>525</sup> According to (the non-authentic) English wording of the statute, it remains unclear whether the applicant is required to carry out an EIA or whether such an EIA is non-mandatory.<sup>526</sup> The statute does not differentiate between different environmental impacts of the planned activity. An authorization is to be denied without further examination of the application for persons that have contravened against a provision of the statute and have been convicted to heavy punishment.<sup>527</sup>

The compliance with the statutory rules can be monitored by inspections.<sup>528</sup> Furthermore, measures can be adopted in order to verify the compliance with the provisions.<sup>529</sup> Japanese law does not contain a

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<sup>518</sup> The following comments are made on the basis of the English translations of the Law No. 61 of 1997. In some cases, the non-authentic translation did not allow for an unambiguous interpretation of the legal terms mentioned therein.

<sup>519</sup> Art. 2 Law Relating to Protection of the Environment of Antarctica.

<sup>520</sup> Vgl. Art. 5 Law Relating to the Protection of the Environment of Antarctica.

<sup>521</sup> Art. 5(3) Law Relating to the Protection of the Environment of Antarctica.

<sup>522</sup> The form to be sent to the Japanese competent authority is available at:  
[http://iaato.org/documents/10157/14363/Procedures\\_for\\_Travel\\_to\\_Antarctica.pdf](http://iaato.org/documents/10157/14363/Procedures_for_Travel_to_Antarctica.pdf).

<sup>523</sup> With the exception of Art. 24 Law Relating to the Protection of the Environment of Antarctica.

<sup>524</sup> Art. 7(2)(i) Law Relating to the Protection of the Environment of Antarctica.

<sup>525</sup> Art. 6(1) Law Relating to the Protection of the Environment of Antarctica.

<sup>526</sup> Siehe Art. 6(3) Law Relating to the Protection of the Environment of Antarctica.

<sup>527</sup> Art. 6(2) Law Relating to the Protection of the Environment of Antarctica.

<sup>528</sup> Art. 22 Law Relating to the Protection of the Environment of Antarctica.

<sup>529</sup> Art. 23 Law Relating to the Protection of the Environment of Antarctica.

general penalization of Antarctic activities without authorization.<sup>530</sup> Conversely, obtaining a permit by making false testimonials may be sanctioned up until one year of imprisonment or a fine of up to 500.000 Yen.<sup>531</sup> Additionally, any person that contravenes specific requirements contained in the authorization will be subjected to a fine of 200.000 Yen at the maximum.<sup>532</sup> The criminal action will be attributed to the representatives of the employee.<sup>533</sup>

### 3.6.1.6 New Zealand

New Zealand implements the EIA by the Antarctica (Environmental Protection) Act 1994.<sup>534</sup> The statute applies in the area of Antarctica claimed by New Zealand,<sup>535</sup> to New Zealand nationals as well as to individuals residing in New Zealand.<sup>536</sup> Furthermore, it is applicable to expeditions organized in or departing from New Zealand<sup>537</sup> as well as vessels flying a New Zealand flag and aircrafts registered in New Zealand.<sup>538</sup> A general exception of the procedure for activities that have been authorized by other States parties does not exist. Rather it is put within the discretion of the competent authority (Minister of Foreign Affairs and Trade) to exempt an activity from the requirement of authorization.<sup>539</sup> Furthermore, members of governmental expeditions of other States parties are exempted from the statute's scope provided that they are not nationals of New Zealand or residing in New Zealand.<sup>540</sup>

New Zealand merges the authorization procedure with the EIA. The EIA is applicable *ratione materiae* to all Antarctic activities.<sup>541</sup> The objective of the statute is a comprehensive protection of the Antarctic environment and the preservation of Antarctica as an area for scientific research. The statute requires therefore that all activities are carried out in accordance of the environmental principles as laid out by Art. 3 of the Environmental Protocol.<sup>542</sup> These principles will be determinative for the exercise of the margin of discretion by the national authority.<sup>543</sup>

Initially the applicant will have to carry out a 'preliminary environmental evaluation'. If the competent authority determines hereby that the activity is likely to have less than a minor or transitory impact, it

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<sup>530</sup> Art. 29 Law Relating to the Protection of the Environment of Antarctica.

<sup>531</sup> Art. 30(2) Law Relating to the Protection of the Environment of Antarctica.

<sup>532</sup> Art. 32(i) Law Relating to the Protection of the Environment of Antarctica.

<sup>533</sup> Art. 33 Law Relating to the Protection of the Environment of Antarctica.

<sup>534</sup> Antarctica (Environmental Protection) Act 1994.

<sup>535</sup> Section 2(a) Antarctica (Environmental Protection) Act 1994.

<sup>536</sup> Section 2(b) Antarctica (Environmental Protection) Act 1994.

<sup>537</sup> Section 2(c) Antarctica (Environmental Protection) Act 1994.

<sup>538</sup> Section 2(d) Antarctica (Environmental Protection) Act 1994.

<sup>539</sup> Section 23(1) Antarctica (Environmental Protection) Act 1994.

<sup>540</sup> Section 4 Antarctica (Environmental Protection) Act 1994. The same applies to vessels and aircrafts that support governmental expeditions of other States parties.

<sup>541</sup> Section 17(1); Section 18(1); Section 19(1) Antarctica (Environmental Protection) Act 1994.

<sup>542</sup> Section 9 Antarctica (Environmental Protection) Act 1994.

<sup>543</sup> Section 10(1)(a); Section 9 Antarctica (Environmental Protection) Act 1994.

notifies the applicant that the activity may proceed.<sup>544</sup> Otherwise, an IEE has to be carried out.<sup>545</sup> If the competent authority determines that the planned activity is likely to have less than a minor or transitory impact, it informs the applicant that the activity may be carried out.<sup>546</sup> Otherwise, *i.e.* if the competent authority determines that the planned activity is likely to have more than a minor or transitory impact, it will demand the applicant to carry out a CEE.<sup>547</sup>

The CEE is to include the considerations of Art. 3 (2) of the Environmental Protocol in conjunction with Annex I to the Environmental Protocol.<sup>548</sup> The competent authority determines whether the activity may be carried out on the basis of the final CEE.

According to New Zealand law, six acts of violations are penalized. Four of these offences can be committed by every person: First, a person who carries out an activity in Antarctica before it is authorized is committing an offence.<sup>549</sup> Second, a person who acts against requirements of the authorization may be punished.<sup>550</sup> Third a person that submits false information may be punished.<sup>551</sup> Fourth the same applies to anyone who omits decisive information.<sup>552</sup> The other two acts can only be committed by an organizer of an activity: a punishable offence is committed if an organizer fails to ensure that the provisions on the EIA are complied with;<sup>553</sup> or fails to ensure that the members of the expeditions are informed correctly about the precise requirements of the authorization.<sup>554</sup>

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<sup>544</sup> Section 17(4) Antarctica (Environmental Protection) Act 1994: "If the Minister determines that the activity is likely to have less than a minor or transitory impact on the Antarctic environment, the Minister shall notify the Person that the activity may be carried out".

<sup>545</sup> Section 18(1) Antarctica (Environmental Protection) Act 1994. The applicant may likewise immediately carry out a CEE.

<sup>546</sup> Section 18(3) Antarctica (Environmental Protection) Act 1994.

<sup>547</sup> Section 18(4) Antarctica (Environmental Protection) Act 1994.

<sup>548</sup> Section 19(2)(b) Antarctica (Environmental Protection) Act 1994.

<sup>549</sup> Section 24(1)(b) Antarctica (Environmental Protection) Act 1994.

<sup>550</sup> Section 24(1)(c) Antarctica (Environmental Protection) Act 1994.

<sup>551</sup> Section 24(1)(e)(i) Antarctica (Environmental Protection) Act 1994.

<sup>552</sup> Section 24(1)(e)(ii) Antarctica (Environmental Protection) Act 1994.

<sup>553</sup> Section 24(1)(a) Antarctica (Environmental Protection) Act 1994.

<sup>554</sup> Section 24(1)(d) Antarctica (Environmental Protection) Act 1994.



### 3.6.1.7 South-Africa

Although South-Africa has ratified the Environmental Protocol<sup>555</sup> and implemented it into its domestic law,<sup>556</sup> until today no procedure has been set up that would implement the EIA into domestic law.<sup>557</sup>

### 3.6.1.8 United Kingdom

The United Kingdom implements the EIA by the Antarctic Act 1994<sup>558</sup> in conjunction with the Antarctic Regulations 1995.<sup>559</sup> The statute applies to British expeditions<sup>560</sup> as well as vessels flying a British flag and aircrafts registered in the United Kingdom.<sup>561</sup> British expeditions are not subject to its applicability provided that they are involved in commercial fishing or innocent passage on the High Seas.<sup>562</sup> Activities authorized by other States parties are not subject to authorization, as they are not considered to be British expeditions within the meaning of this statute.<sup>563</sup> The statute does not contain a margin of discretion for the authority.<sup>564</sup> The procedure is initiated by an application to the competent authority (Secretary of State for Foreign and Commonwealth Affairs). If the competent authority concludes that the planned activity is likely to have more than a negligible environmental impact, the applicant has to conduct an IEE.<sup>565</sup> The IEE has to include sufficient information in order to assess the cumulative environmental impacts of the activity and is required to name alternatives to the planned activity with less environmental impacts.<sup>566</sup> If the competent authority assesses that the planned activity is likely to have more than a

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<sup>555</sup> Available at: [http://ats.aq/devAS/ats\\_parties.aspx?lang=e](http://ats.aq/devAS/ats_parties.aspx?lang=e).

<sup>556</sup> Antarctic Treaties Act, 1996 [No. 60 of 1996].

<sup>557</sup> During an interview with an employee of a South African tourism operator 'The Antarctic Company', the authors were told that in South Africa, the EIA had so far not been effectively implemented. Thus, it may be assumed that the existing legal authorization for such an implementation has so far not been activated. The legal authorization may be found in Art. 6(1)(b) Antarctic Treaties Act, 1996 [No. 60 of 1996]: "The Minister may make Regulations with regard to [...] the issues of permits contemplated in any treaty".

<sup>558</sup> Antarctic Act 1994 Chapter 15.

<sup>559</sup> Statutory Instruments 1995 No. 1994.

<sup>560</sup> According to Section 3(3) Antarctic Act 1994, this includes expeditions organized within the United Kingdom, as well as expeditions emanating from the territory of the United Kingdom.

<sup>561</sup> Cf. as to this Section 5(3) Antarctic Act 1994; Section 21(2) Merchant Shipping Act Chapter 31.

<sup>562</sup> Section 3(2) Antarctic Act 1994.

<sup>563</sup> Section 3(4) Antarctic Act 1994: "An expedition organised in and authorised in writing by another Contracting Party shall not be regarded as a British expedition". Cf. also A. Proelß/E. Blitzka/J. Oliva 2012, 86 et seq.

<sup>564</sup> See also A. Epiney/J. Heuck/B. Pirker 2013, 144.

<sup>565</sup> Section 5(1) Antarctica Regulations 1995.

<sup>566</sup> Section 5(1) Antarctica Regulations 1995.

minor or transitory impact, the applicant has to conduct a CEE.<sup>567</sup> A denial of authorization has to be justified in writing.<sup>568</sup>

A person who contravenes against the requirement to only enter Antarctica with an authorization is committing a criminal offence.<sup>569</sup> This is also true for the other participants of an expedition where one person participates without an authorization.<sup>570</sup> Furthermore, a company (operator), captain or aircraft captain that transports a person to Antarctica who has no permit is also committing a criminal offence.<sup>571</sup>

### 3.6.1.9 United States

In the United States, the EIA for non-governmental activities in Antarctica is regulated by the Science, Tourism and Conservation Act in conjunction with the Environmental Impact Assessment of Nongovernmental Activities in Antarctica.<sup>572</sup> The procedure applies to all non-governmental activities for which an obligation of notification under Art. VII(5) AT arises.<sup>573</sup> This is true for all expeditions of US-citizens as well as those expeditions that have been organized within U.S. territory.<sup>574</sup> The application is excluded, however, for all activities which fall under CCAMLR and CCAS<sup>575</sup> as well as for cases of emergency<sup>576</sup>.

In the United States, the EIA is not linked to an authorization procedure and thus the EIA is not a basis for a final decision on the authorization of an activity.<sup>577</sup> Rather, the final decision on whether an activity will proceed remains with the company (i.e. the operator); the competent authority (Environmental Protection Agency) only ensures that the formal procedure laid out by Art. 8 Environmental Protocol and its Annex I is followed.<sup>578</sup>

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<sup>567</sup> Section 6(1) Antarctica Regulations 1995: “more than a minor or transitory impact”.

<sup>568</sup> Section 7 Antarctica Regulations 1995.

<sup>569</sup> Section 3(5) Antarctic Act 1994. As to the enforcement of these stipulations cf. Section 27 et seq. Antarctic Act 1994.

<sup>570</sup> Section 3(6) Antarctic Act 1994.

<sup>571</sup> Section 3(7) Antarctic Act. 1994.

<sup>572</sup> 16 U. S. C. §§ 2403a (c) Environmental Protection Agency, Environmental Impact Assessment of Nongovernmental Activities in Antarctica, 66 Federal Register No. 235 of 6 December 2001; rules for governmental activities within Antarctica can be found in the National Environmental Policy Act 1969; for this see D. Rothwell/C. Joyner 2000, 166; see also 16 U. S. C. § 2403a(a).

<sup>573</sup> 16 U. S. C. § 2403a(c); § 8.2(b) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>574</sup> Cf. also at 3.1.1.1.

<sup>575</sup> § 8.2(c) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>576</sup> § 8.10 Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>577</sup> K. Bastmeijer/R. Roura 2008, 194; cf. as to this ATCM XXIV (2001), IP 55, 3.

<sup>578</sup> Cf. particularly the wording of § 8.8(c) Environmental Impact Assessment of Nongovernmental Activities in Antarctica: “The decision to proceed, based on environmental documentation that meets the requirements under Article 8 and Annex I of the Protocol and the provisions of this part, rests with the operator. Any decision by an operator on whether to proceed or modify a proposed activity for which a CEE was required shall be based on the CEE and other relevant considerations”.

The procedure is initiated by a Preliminary Environmental Review Memorandum (PERM) which the operator<sup>579</sup> has to file to the competent authority<sup>580</sup> 180 days in advance of the planned activity. The Memorandum shall contain sufficient detail to assess whether a proposed activity may have less than a minor or transitory impact.<sup>581</sup> This will be assessed by the competent authority within a period of fifteen days.<sup>582</sup> There are four possible results:

- First, the competent authority does not issue a notice within thirty days; in this case, the operator is deemed to have met the legal requirements of Art. 8 and Annex I of the Environmental Protocol as well as the domestic stipulations.<sup>583</sup>
- Second, the competent authority concludes that the planned activity does not comply with Art. 8 and Annex I of the Environmental Protocol.<sup>584</sup>
- Third, the competent authority recommends the carrying out of an IEE.<sup>585</sup>
- Fourth, the competent authority recommends the carrying out of a CEE.<sup>586</sup>

If no PERM has been previously submitted, the operator is required to submit an IEE at the latest 90 days in advance of the beginning of the planned activity.<sup>587</sup> The IEE shall contain sufficient detail to assess whether the activity has more than a minor or transitory impact.<sup>588</sup> It is up to the competent authority to assess whether the IEE complies with Art. 8 and Annex I of the Environmental Protocol.<sup>589</sup> The authority has thirty days for this decision. Three results are possible:

- First, the competent authority does not issue a notice within sixty days; in this case the operator is deemed to have met the legal requirements of Art. 8 and Annex I of the Environmental Protocol as well as the domestic rules implementing the Environmental Protocol.<sup>590</sup>
- Second, the competent authority concludes that the IEE does not comply with Art. 8 and Annex I of the Environmental Protocol.<sup>591</sup>

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<sup>579</sup> Cf. as to this term f § 8.3 Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>580</sup> *I.e.* the Environmental Protection Agency.

<sup>581</sup> § 8.6(a) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>582</sup> § 8.6(a) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>583</sup> § 8.6(a) Environmental Impact Assessment of Nongovernmental Activities in Antarctica: “If EPA does not provide such notice within thirty (30) days, the operator will be deemed to have met the requirements of this part provided that any required procedure, which may include appropriate monitoring, are put in place to assess and verify the impact of the activity”.

<sup>584</sup> § 8.6(a) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>585</sup> § 8.6(b) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>586</sup> § 8.6(b) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>587</sup> § 8.7(a) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>588</sup> § 8.7(b) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>589</sup> § 8.7(c) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>590</sup> § 8.7(c)(1) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>591</sup> § 8.7(c)(1) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

- The competent authority recommends the carrying out of a CEE.<sup>592</sup>

If neither a PERM nor an IEE has previously been submitted to the competent authority, a draft of the CEE has to be submitted to the competent authority at the latest on 1 December of the year before the beginning of the activity.<sup>593</sup> The final version has to be submitted 75 days in advance of the beginning of the activity.<sup>594</sup> The CEE has to include sufficient detail to assess the foreseeable environmental impacts of the activity and which possible alternatives exist to the planned activity.<sup>595</sup> Two results are possible:

- First, the competent authority does not issue a notice within sixty days before the beginning of the expedition and the operator is deemed to have met the legal requirements of Art. 8 and Annex I of the Environmental Protocol as well as the domestic regulations.<sup>596</sup>
- Second, the competent authority concludes that the IEE does not comply with Art. 8 and Annex I of the Environmental Protocol.<sup>597</sup>

Violations of the above mentioned rules may be sanctioned with a fine up to 10.000 US Dollars and/or up to one year of imprisonment.<sup>598</sup>

### 3.6.1.10 Germany

Germany implements the Environmental Protocol by the Act Implementing the Environmental Protocol to the Antarctic Treaty (AUG) of 4 October 1991.<sup>599</sup>

The statute applies to German nationals, legal entities and individuals within the German territory as well as foreign legal entities, provided that the activity has been organized within the German territory or departs to Antarctica from there (§§ 3(1); 2(1) No. 2 AUG). According to the statute, all activities in Antarctica require a permit with the exception of activities that have been authorized by other States parties to the Environmental Protocol, that constitute a passage as well as activities regulated by CCAMLR and CCAS (§ 3(2) AUG).

German law links the EIA with a permitting procedure. The standard for whether an activity will or will not be permitted is the comprehensive protection of the Antarctic environment (Art. 2, 3 Environmental Protocol). According to the aim of the AUG, an activity can only be authorized if it complies with § 3(4) AUG, i.e. a prohibition of all activities if no permission exists (*präventives Verbot mit Erlaubnisvorbehalt*). Thus, all activities in Antarctica may only be carried out subsequent to their authorization.<sup>600</sup> Firstly, the

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<sup>592</sup> § 8.7(c)(2) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>593</sup> § 8.8(a); (b) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>594</sup> § 8.8(a); (b)(1)&(2) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>595</sup> § 8.8(a) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>596</sup> § 8.8(b)(2) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>597</sup> § 8.8(b)(2) Environmental Impact Assessment of Nongovernmental Activities in Antarctica.

<sup>598</sup> §§ 8.11(b) Environmental Impact Assessment of Nongovernmental Activities in Antarctica; 16 USC § 2408.

<sup>599</sup> Gesetz zur Ausführung des Umweltschutzprotokolls vom 4. Oktober 1991 zum Antarktisvertrag vom 22. September 1994, BGBl. I 2593.

<sup>600</sup> Cf. A. Epiney/J. Heuck/B. Pirker 2013, 91; U. Smeddinck 2006, 344; cf. also OVG Berlin-Brandenburg (Higher Administrative Court of Berlin-Brandenburg) Judgement of 29 April 2008, AZ OVG 11 N 127.05, para. 12.

competent authority (the Federal Environment Agency, UBA) assesses whether the planned activity will have less than a minor or transitory impact, a minor or transitory impact or more than a minor or transitory impact. (§ 4(3) AUG). A permit will be issued if the activity has less than a minor or transitory impact (§ 4(4) AUG). Otherwise, an IEE – for those activities with a minor or transitory impact – or a CEE (*Umweltverträglichkeitsprüfung*) – for those activities with more than a minor or transitory impact has to be carried out.<sup>601</sup> If it results from the IEE that the planned activity is likely to have a minor or transitory impact, a permit will be issued (§ 7 Abs 2 AUG). If, however, more than a minor or transitory impact is prognosticated, a CEE has to be conducted by the applicant. If it results therefrom that the activity will have more than a minor or transitory impact, a permit will only be issued if conditions can ensure that the legal requirements will be met (§§ 12 (2); 7(2) AUG).

Every activity which has been carried out without a permit is an administrative offence and can be fined up until 100.000 DM. (§ 36 (1) No. 1 and(2) AUG). If such acts are carried out professionally or regularly, they constitute a criminal offence.<sup>602</sup> The punishment will be higher – i.e. up to five years prison sentence – if the health of others is endangered or plants, animals and other objects in Antarctica are damaged.<sup>603</sup>

### 3.6.2 Conclusion

There are great differences between the domestic procedures implementing the Environmental Protocol that have been examined. This concerns firstly the question whether a governmental authorization will be carried out subsequently to the EIA at all. Two of the States that have been examined, i.e. the United States and Argentina, do subject activities within Antarctica to a formal authorization procedure even if an EIA has taken place. If certain companies (private operators) – e.g. for land-based tourism - are based within these States, this means that their activities are not subject to a formal authorization procedure.

The other States that have been examined do however link the EIA with an official authorization. The difference between States subjecting activities to a requirement to authorize Antarctic activities and States where no such requirement exists, however, has not as much practical relevance as it seems at first glance. The mere existence of a procedure to authorize Antarctic activities, where the competent authority evaluates an application against the background of the general principles of the Environmental Protocol, does not necessarily result in a more restrictive handling of Antarctic tourism than through domestic procedures where no such requirement exists and where the authority only monitors whether the formal procedural rules are followed.<sup>604</sup>

Great differences also exist with regard to the exception of the applicability of national procedures for cases in which the planned activity has already been authorized by another State party. While most States preclude the applicability of their procedures in such cases, other States do not *ipso iure* exempt the applicability of their procedures in these cases: e.g. Japan only precludes the applicability of its procedure in cases where the foreign authorization was issued subsequent to a procedure which is comparable to that of Japan. Likewise, New Zealand leaves it to the discretion of the competent authority to decide on this issue.

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<sup>601</sup> The German notion „Umweltverträglichkeitsprüfung“ covers only CEEs according to § 8 AUG.

<sup>602</sup> In accordance with § 37(1) AUG the maximum punishment are three years.

<sup>603</sup> This may be punished with up to five years of imprisonment, according to § 37(2) AUG. In accordance with § 37(3) AUG the attempt is also punishable.

<sup>604</sup> Cf. for examples involving activities that have already been prohibited; ATCM XXXVI (2013), WP 47, 9.

Although a greater degree of standardization of the national procedures would be desirable, in order to regulate Antarctic tourism in a coherent way, the States parties thus far have not taken any steps in this direction. It remains unsettled until today when an activity will have more than a minor or transitory impact; no uniform subsequent practice of the States parties has crystallized in this regard that would reliably concretize these categories.<sup>605</sup> Thus a wide margin of discretion of the States parties remains for decisions; this runs contrary to a comprehensive protection of the Antarctic environment. In order to change this, mandatory material requirements for a truly internationalized EIA would have to be adopted under the ATCM-framework in the future<sup>606</sup>. It also is irritating that two of the above mentioned States parties to the Environmental Protocol – i.e. South Africa and Chile – have so far not implemented the EIA into national law. This has the potential to weaken the effectivity of the Environmental Protocol as a whole. With regard to the implementation of the EIA specifically and more generally the Environmental Protocol as a whole, further research may be required; especially other States where tourist activities are possibly planned, that have not been examined in the present study should be considered; this concerns e.g. Canada, China, the Netherlands, Norway, Poland, and Russia.

### **3.7 Possibilities to restrict Antarctic tourism in Germany**

In the following part, the possibilities and limitations of restricting Antarctic tourism in Germany by the Federal Environmental Agency, as the competent authority, will be outlined. A focus will be placed on the authorization procedure as laid down in §§ 4, 7, and 12 AUG: It has to be examined how the Environmental Protocol relates to the domestic statute of implementation, *i.e.* the AUG, and particularly whether an individual may invoke the less restrictive norms of the Environmental Protocol. Subsequently, it will be examined, whether the Federal Environment Agency may, in accordance with the *lex lata*, restrict either the carrying out of tourist activities within Antarctica or the modalities of such activities.

#### **3.7.1 The German Act implementing the Environmental Protocol (AUG) in the light of international law and divergent domestic procedures**

##### **3.7.1.1 Basic principles**

Some preliminary remarks concerning the interplay between the norms of the German AUG and the stipulations of the Environmental Protocol are necessary, before the individual norms of the AUG are analyzed in more detail.<sup>607</sup> Although the stipulations of the AUG have to be interpreted in the light of the rules of the Environmental Protocol as part of international law by the competent authority, it is exclusively the AUG – i.e. the domestic statute of implementation – which is of significance for the individual tourist or the tourism company. Even if a national provision – e.g. this is the case for a mandatory time limit for an authorization<sup>608</sup> – deviates from a provision of the Environmental Protocol, an individual will not be able to invoke the less restrictive Environmental Protocol directly. This follows from the fact that the EIA remains a domestic procedure, whose implementation remains with the different na-

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<sup>605</sup> Cf. as to this issue at 3.1.1.4.

<sup>606</sup> Cf. as to proposals for the future (*de lege ferenda*) 4.3.1.

<sup>607</sup> Cf. 3.6.1.

<sup>608</sup> § 3(7) AUG; cf. 3.7.3.1.

tional State parties.<sup>609</sup> No individual right of a journey into the Antarctic Treaty area derives from the Environmental Protocol.

### 3.7.1.2 Exemptions from authorization

In accordance with § 3(2) No. 1 AUG, all activities that have been authorized by another State party to the Environmental Protocol are not subject to the general requirement of the permitting process according to § 3(1) AUG.<sup>610</sup> The key question in this regard being what the term ‘authorization’ in this context means and more precisely whether national procedures that do not involve a final authorization but merely a notification may be subsumed under this notion. The wording of § 3(2) No. 1 AUG *prima facie* might seem to lead to the conclusion that the privilege of recognition of foreign authorization is reserved for procedures, in which an authorization in the sense of a final decision of the competent authority is issued.<sup>611</sup> Thus, arguably the term ‘authorizations’ (*Genehmigungen*) does not refer to all national implementation procedures of the EIA of the other States parties. On the other hand, the drafting history of the stipulation leads to a different conclusion. § 3(2) No. 1 AUG was adopted in 1994. The German legislator did not know at this time how the EIA would be implemented in the various States. Furthermore, the object and purpose of the Environmental Protocol and the entire Antarctic Treaty system have to be taken into account. The fact that Germany regulates the Antarctic Treaty area together with the other States parties supports a ‘cooperative solution’ whereby the outcome of foreign procedures will be recognized irrespective of whether an authorization *stricto sensu* is issued. If however, the protection of the Antarctic Environment is to be seen as the decisive goal of the AUG, it would also be possible to interpret the term ‘authorization’ more narrowly; *i.e.* to require a national procedure which results in a formal permit or a formal denial of the competent authority. Such an interpretation would, however, require the existence of a clear intention of the legislator in this regard and therefore has to be discarded.

Furthermore, it has to be assessed whether the Federal Environment Agency may deny a permit for activities which have already been authorized by another State party. The wording of § 3(2) No. 1 AUG speaks against a possibility for the Federal Environment Agency to review such activities on the basis of the AUG; all foreign authorizations are universally exempted from the requirement of a German authorization. The underlying objective of exempting foreign activities from a national authorization is based on the general *principle* of cooperation<sup>612</sup> governing the entire administration of the Antarctic Treaty area. It also has to be considered in this context that the EIA is at its core a domestic procedure. Hence, a plurality of national implementation procedures results from this domestic status of the EIA. This was accepted by the States parties in order to ensure a broad ratification of the Environmental Protocol and to preserve the possibility of its implementation into different legal system. Thus, a possibility of reviewing foreign authorizations under the AUG has to be denied.

Despite of this, the Federal Environment Agency may deny the recognition of a foreign authorization in two cases: first, if no national procedure was conducted at all. Thus, operators from Chile and South Africa will be required to subject activities to an authorization in accordance with § 3(1) AUG, provided that the AUG is applicable. Second, the privilege of recognition – in accordance with the principle of good

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<sup>609</sup> Cf. F. Francioni 1993, 62.

<sup>610</sup> Cf. extensively A. Proelß/E. Blitzka/J. Oliva 2012, 67 et seq.

<sup>611</sup> For this result cf. Epiney/J. Heuck/B. Pirker 2013, 98 et seq.

<sup>612</sup> See C. Tomuschat 2013, § 226.

faith – will be denied for authorizations if the standards of the Environmental Protocol were evidently violated.<sup>613</sup> This will be the case for authorizations that were deficient (because they were motivated by corruption or fraud); or for those that constitute a violation of a specific prohibition of the Environmental Protocol.

### 3.7.2 Possibility to restrict the authorization of tourist activities within Antarctica

In the following, it will be examined whether the Federal Environment Agency enjoys a margin of discretion that could be used for a more restrictive practice of authorization of tourist activities within Antarctica. In German administrative law, a distinction is drawn between a margin of discretion with regard the prerequisites of the applicability of a norm (*Tatbestand*), and its margin of discretion regarding a norm's legal effects or consequences (*Rechtsfolgen*). Whereas the margin of discretion that an authority enjoys with regard to a norm's applicability is called *Beurteilungsspielraum*, the margin of discretion whether or how to follow a norm's consequences is called *Ermessen*.<sup>614</sup> (In English both German notions – *Beurteilungsspielraum*/*Ermessen* - are covered by the notion of the margin of discretion.)

#### 3.7.2.1 Margin of Discretion: *Ermessen*

The German Federal Environment Agency enjoys no general margin of discretion when deciding on an authorization (§ 40 Administrative Procedure Act, VwVfG). A differentiation has to be made: The Federal Environment Agency enjoys no discretion whatsoever for activities that have a minor or transitory impact or fall below this threshold (§§ 4(4) and 7(2) AUG). This is not the case, however, for activities for which a CEE has to be carried out. If the CEE involves that the activity is likely to have more than a minor or transitory impact, the authority enjoys *intendiertes Ermessen*<sup>615</sup> – i.e. a margin of discretion where a certain result is *prima facie* intended – in the sense of denying the authorization of a certain activity (§ 12(2) AUG);<sup>616</sup> in other words, the German Federal Environment Agency is required to deny the authorization for such activities with the exception of those activities for which compliance with the AUG can be proactively guaranteed by the means of a condition or a proviso (i.e. a requirement).<sup>617</sup>

#### 3.7.2.2 Margin of Discretion: *Beurteilungsspielraum*

A possibility to restrict Antarctic tourism within the existing legal framework would exist if the AUG would accord a margin of discretion to the Federal Environment Agency because of a broad legal term

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<sup>613</sup> Cf. for this result also A. Proelß/E. Blitzka/J. Oliva 2012, 74 et seq; for a different view see A. Epiney/J. Heuck/B. Pirker 2013, 98.

<sup>614</sup> In German legal literature, there is the differentiation between *Beurteilungsspielraum* and *Ermessen* depending on the answer to the question whether the discretion of the executive is part of legal effects of a rule or part of the conditions for its application; cf. F. Kopp/U. Ramsauer 2012, § 40 MN 10 et seq., 71.

<sup>615</sup> Critical K. Schönenbroicher 2014 § 39 VwVfG Rn. 66 ff.; instructive F. Kopp/U. Ramsauer 2012, § 40 VwVfG MN. 45.

<sup>616</sup> K. Schönenbroicher 2014, § 39 MN 66.

<sup>617</sup> This also results out of the preparatory documents: "Activities with [more than or a minor or transitory impact] may only be permitted if it can be ensured by requirements and conditions that the stipulations of the AUG [...] have been fulfilled." (Translation by the authors); BT-Drs. 12/7491, 21; cf. to this terminology *infra*.



(*unbestimmter Rechtsbegriff*).<sup>618</sup> The AUG uses indefinite legal terms on numerous occasions. This is true for *e.g.* the prohibitions of § 3(4) AUG<sup>619</sup> and especially the categorization of environmental impacts into ‘less than minor or transitory’, ‘minor or transitory’ or ‘more than minor or transitory’.<sup>620</sup> From the use of broad legal terms, however, one cannot deduce *per se* that a margin of discretion is given.<sup>621</sup> The sole fact that broad legal terms are part of the AUG does not mean that the Federal Environment Agency enjoys a margin of discretion. It is difficult to determine in which cases a margin of discretion is accorded to the authority. Court decisions and legal doctrine do accord a margin of discretion for certain categories.<sup>622</sup>

Arguably, within the AUG, a margin of discretion may be approved because the authority has to predict the risk of a certain outcome (*prognosis/risk decision*). The doctrine does not *per se* approve the existence of a margin of discretion for those constellations.<sup>623</sup> It is if and only if the executive is expressly given the competence to make a prognosis by the legislator<sup>624</sup> that the authority may take a decision that will only be subjected to a limited judicial control.<sup>625</sup> This is the case *e.g.* in nuclear legislation or legislation on genetically engineering where the precautionary principle allows the authority to take risk decisions on a scientific basis<sup>626</sup> that are subject to a limited judicial control, only.<sup>627</sup> In the given context of the regulation of Antarctic tourism it speaks in favor of a margin of discretion that the legislator has expressly given the Federal Environment Agency the duty to assess the environmental impact of an activity in § 3(4) AUG (*“Das Umweltbundesamt beurteilt ...”*).<sup>628</sup> Hence, one may conclude that the German

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<sup>618</sup> F. Kopp/U. Ramsauer 2012, § 49 MN 71.

<sup>619</sup> Cf. *e.g.* § 2(4) No. 3 AUG: *“erhebliche negative Wirkungen auf die Luft und Wasserqualität”* (“considerable negative impact on the air- and water quality”, translation by the authors).

<sup>620</sup> § 4(3) AUG. Cf. also, A. Proelß/E. Blitzka/J. Oliva 2012, 19 with further references.

<sup>621</sup> The constitutionality of the institution of a *Beurteilungsspielraum* is seen as questionable by many scholars, with a view of the right to remedy as guaranteed by Art. 19(4) of the German Constitution; nevertheless, it is recognized that this kind of discretion is reasonable in well justified, exceptional cases; M. Sachs 2011, Art. 19 MN 124 with further references; R. Schmidt-Aßmann 2014, Art. 19(4) with further references, 191 et seq.

<sup>622</sup> There is an abundance of literature to this issue; cf. *e.g.* M. Jestaedt 2010, § 11 paras. 45 et seq.; K. Schönenbroicher 2014, § 39 MN 103 et seq.; F. Kopp/U. Ramsauer 2012, § 40 MN 71 et seq.; M. Ruffert 2010, § 40 MN 94 et seq.

<sup>623</sup> K. Schönenbroicher 2014, § 39 MN 122 et seq.; for a different view cf. M. Ruffert 2010, § 40 MN 102; M. Sachs 2014, § 40 MN 213.

<sup>624</sup> So K. Schönenbroicher 2014, § 39 MN 123.

<sup>625</sup> Cf. F. Kopp/W. Schenke 2014, § 39 MN 77g; for a critical view, however, M. Sachs, 2014, § 40 MN 212 f.

<sup>626</sup> A. Epiney/J. Heuck/B. Pirker 2013, 86 et seq.

<sup>627</sup> Cf. F. Kopp/W. Schenke 2014, § 39 MN 77; critical in this regard Sachs 2014, § 40 MN 212 et seq.

<sup>628</sup> To this issue see Judgment of the OVG (Higher Administrative Tribunal) Lüneburg of 8 January 1991, 4 NVwZ-RR1991, 576, 576 et seq. that assumed a margin of discretion (*‘Beurteilungsspielraum’*) in the case of § 8 of the municipal code of Lower Saxony (*‘Gemeindeordnung Niedersachsen’*): “The legislator emphasized the competence of the community with regard to this question by reformulating the statute in the following sense: ‘If they, i.e. the communities, determine an urgent public interest [...] this emphasis on the role of the communities can only be

competent authority enjoys a margin of discretion throughout the permitting procedure as far as the assessment of environmental impacts is concerned; this result is also shared by the doctrine.<sup>629</sup>

The fact that an authority, like the German Federal Environment Agency, enjoys a margin of discretion does not mean, however, that the respective decision is entirely deprived of judicial review.<sup>630</sup> The constitutionality of the legal basis,<sup>631</sup> the legality of the procedure – *i.e.* the right to be heard of the applicant, the reasons for the final decision and the correct establishment of the facts by the authority – remain under judicial review;<sup>632</sup> Furthermore, the compliance with the prohibition to take arbitrary decisions – in accordance with the *Rechtsstaatsprinzip* (rule of law) enshrined in Art. 20(3) of the German Constitution (the German Basic Law, GG) – is subject to judicial review; this also entails the interdiction to base a decision on unjustified grounds.

Additionally, the exercise of the margin of discretion by the authority is subject to limited judicial review. Although the assessment of the risk of the planned activity by the authority will not be reviewed, the judicial control sets in as far as the authority has misjudged the meaning and scope of the applicable terms or the legal frame in which it acts.<sup>633</sup>

The margin of discretion of the Federal Environment Agency is even further narrowed by an implicit self-restriction through its prior actions.<sup>634</sup> Art. 3(1) of the German Constitution – involving the right to equal treatment – requires the authority to exercise its margin of discretion uniformly in the future if there has been a general practice of the authority in similar cases.<sup>635</sup> This rule applies in cases of a permanent uniform administrative practice<sup>636</sup> that does not necessarily have to be laid down in written rules. According to this, the prior practice of the Federal Environment Agency *never* to assess that a tourist activity would involve more than a minor or transitory impact on the Antarctic environment is of relevance for the future assessment of such activities. Accordingly, an arbitrary change of the authorization practice in this regard could be unlawful. In particular, the Federal Environment Agency would have to justify why its assessment of tourist activities within Antarctica has changed.<sup>637</sup> An argument for the latter

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interpreted in the sense of a margin of discretion that is subject to no or only limited judicial review.” (translation by the authors).

<sup>629</sup> A. Proelß/E. Blitzka/J. Oliva 2012, 21 et seq.; A. Epiney/J. Heuck/B. Pirker 2013, 91; B. Wegener 2013 18 et seq.; U. Smeddinck 2006, 346.

<sup>630</sup> Vgl. M. Sachs 2014, § 40 MN 221.

<sup>631</sup> F. Kopp/U. Ramsauer 2012, § 40 MN 86.

<sup>632</sup> M. Jestaedt 2010, MN 54.

<sup>633</sup> M. Jestaedt 2010, MN 54; as to the latter aspect cf. R. Schmidt-Aßmann 2014, Art. 19(4) MN 192. Cf. for a similar view M. Sachs 2014, § 40 MN 227: “Object of the control is further the question whether the terminological content of the legal stipulation applied was – abstractly – interpreted correctly, especially whether during the application on the concrete case the limits and normative standards were met” (translation by the authors).

<sup>634</sup> Cf. P. Stelkens 2014, § 40 MN 103 et seq.; M. Raschke 2014, § 40 MN 64 et seq.

<sup>635</sup> P. Stelkens 2014, § 40 MN 105.

<sup>636</sup> M. Raschke 2014, § 40 MN 64.

<sup>637</sup> M. Raschke 2014, § 40 MN 66.

could derive from clarification of the relevant terms – *i.e.* minor or transitory impact – at the ATCM-level.<sup>638</sup>

### 3.7.2.3 Conclusion

A prohibition of tourist activity is only possible for those activities with more than a minor or transitory impact. The question, when an activity crosses this threshold, falls within the margin of discretion of the Federal Environment Agency. The international framework barely restricts this discretion, since it is not resolved on an international level when an activity has more than a minor or transitory impact. Nevertheless, the margin of discretion of the Federal Environment Agency is notably limited by its prior practice of authorization from which it may only deviate with good reasons.

## 3.7.3 Possibilities to restrict the modalities of tourist activities within Antarctica

The Federal Environment Agency, as the competent national authority for permitting, may not only decide *if* activities may be carried out in Antarctica but also *how* such activities have to be conducted. The legislator gives the Federal Environment Agency the power to modify the permit. Such modifications may take the form of collateral clauses (*Nebenbestimmungen*) (§§ 3(7) AUG; § 36(1) VwVfG).<sup>639</sup> Accordingly, the AUG allows the Federal Environment Agency to subject permits to conditions or provisos.<sup>640</sup> Furthermore, in cases of activities subject to a CEE, the authority is even required to adopt a permit in connection with a proviso or subject its existence to a condition if this is necessary to guarantee that the legal stipulations are fulfilled (§ 7(2) AUG).

### 3.7.3.1 Periodical limitations

The Federal Environment Agency is required to restrict the period of time for which a permit will be valid (§§ 3(7) AUG; 36 (2) No. 1 VwVfG). It also is rightly confirmed by jurisprudence that no permanent pieces of art can be authorized within Antarctica.<sup>641</sup>

### 3.7.3.2 Provisos (*Auflagen*)

It is of importance that a permit can be issued in conjunction with a proviso, *i.e.* requirement, according to German law implementing the Environmental Protocol (§§ 3 (7); 36(2) No. 4 VwVfG). A proviso means that a permit is issued in conjunction with a stipulation that imposes a certain action or omission on the addressee.

However, it is difficult to distinguish a proviso from a modifying permit. Whereas the proviso remains a distinguishable collateral clause of the ‘main administrative act’,<sup>642</sup> a modifying permit directly changes

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<sup>638</sup> Cf. 4.3.1.

<sup>639</sup> Cf. S. Detterbeck 2014, para. 643.

<sup>640</sup> German Administrative Law differentiates *inter alia* between authorizations whose very existence is subject to a certain condition (*Bedingung*) or authorizations that are made in conjunction with a requirement to behave in a certain manner (*Auflage*). Furthermore, an authorization may also be subject to a certain period of time (*time limit*, *Befristung*).

<sup>641</sup> OVG Berlin-Brandenburg (Higher Administrative Court of Berlin-Brandenburg), Judgment of 29 April 2008, AZ OVG 11 N 127.05, para. 12.

the administrative act itself. In the latter case, the authority will not issue the administrative act that has been demanded by the applicant but an *aliud*.<sup>643</sup> This distinction is relevant for the practice of the AUG:<sup>644</sup> If an individual violates the limits of a modifying authorization, he or she will act illegally and without permit within the meaning of § 36(1) No. 1 AUG.<sup>645</sup> If an individual will violate a proviso, this will only entitle the Federal Environment Agency to revoke the initial authorization in accordance with § 49(2)No.2 VwVfG; at the moment that the activity is carried out, however, a valid authorization does exist.

The decisive criteria for distinguishing a proviso from a modifying permit, according to the doctrine, is whether the content of the administrative act was specified; this also includes “what shall be regulated in which way”.<sup>646</sup> It seems difficult to lay down out any abstract criteria when a restriction of a tourist authorization could be classified as a modifying permit or a proviso: The duty to change a chosen route in Antarctica, for instance, would rather seem to be a modifying permit, since a route is an essential part of the permit.<sup>647</sup>

In contrast, the duty to act in accordance with ATCM-measures (Site Guidelines, Management Plans and other soft law norms) is a requirement within the meaning of § 36(2) No. 4 AUG. It is lawful if non-binding resolutions are part of requirements or other collateral clauses. The content of provisos and conditions fall within the discretion of the Federal Environment Agency; this is equally true for the question whether or not a proviso will be issued in the first place. This margin of discretion of the Federal Environment Agency was granted by the democratically legitimized legislator.<sup>648</sup> Especially, within a legal order that is open for international rules, the executive branch is required to implement on a national level what it has been agreed on an international level.<sup>649</sup> This does not deliver the Federal Environment Agency from respecting the constitutional principle to lay down legal rules in a precise way (*Bestimmtheitsgebot*). Accordingly, a requirement has to be formulated in a manner which is comprehensible for the addressee. Furthermore, it has to be formulated in German language (§ 23 VwVfG);<sup>650</sup> thus ATCM-soft law rules have to be translated into German.

It has to be stressed, however, that a proviso will only be a viable tool for the restriction of actions that are subject to a permanent permission – i.e. a permission that covers a certain period of time, *e.g.* one

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<sup>642</sup> P. Tiedemann 2014, § 36 MN 59.

<sup>643</sup> F. Kopp/W. Schenke 2014, § 36 MN 5.

<sup>644</sup> To this distinction in general, cf. F. Kopp/U. Ramsauer 2012, § 36 MN 36 et seq.

<sup>645</sup> Cf. H. Weiß 2014, § 36 MN 53. The legal remedies against these two institutions differ. A requirement can be object of a legal dispute whereas in the case of an *Inhaltsbestimmung* the applicant has to demand the issuance of an entirely new administrative act; cf. as to this issue H. Henneke 2014, § 36 MN 10.

<sup>646</sup> H. Henneke 2014, § 36 MN 9; F. Kopp/U. Ramsauer 2012, § 36 MN 19.

<sup>647</sup> The fact that the authority can separately enforce a requirement is also irrelevant for the Antarctic Treaty area.

<sup>648</sup> In accordance with German Constitutional Law, a soft law rule is not sufficient if an act of parliament is required in order to justify a restriction of a constitutional (fundamental) right; thus a restriction of a constitutional right cannot be justified solely by relying on a soft law rule; cf. as to this issue; K. Hailbronner 1982, 116.

<sup>649</sup> For the same result see VG Stuttgart 18 NVwZ – Beilage 1998 36, 38; cf. for more details C. Engels 1989, 255 et seq.

<sup>650</sup> H. Schmitz 2014, § 23 MN 48.

single permit that is applicable for several cruises. In contrast, a proviso is ineffective in order to restrict one singular activity for which one single permit has been granted – *e.g.* in the case of one adventure expedition –, since neither means are available to ensure compliance with such a proviso, nor will it be possible to *ex post* sanction violations of the requirement. This is true because a tourism operator who does not fulfill a proviso still acts on the basis of a valid permit. In other words, the very existence of the permit will not be imperiled by the fact that a non-compliance occurred with regard to the duties enshrined in a proviso which has been made in conjunction with a permit. The AUG does not contain a fine for a violation of a proviso. The case is different, however, for a permit that covers several voyages to Antarctica; once the Federal Environment Agency learns that a violation of a proviso has occurred, it may revoke the initial permit.

### 3.7.3.3 Conditions (*Bedingungen*)

If an administrative act, *in casu* a permit, is subject to a condition, its existence or promulgation will be subjected to an indeterminate future event.<sup>651</sup> According to the AUG, all permits may be subject to conditions.<sup>652</sup> It is lawful to subject a permit to a resolutive condition (*auf lösende Bedingung*)<sup>653</sup> – *i.e.* to issue a permit and subject its continued existence to a certain behavior of the addressee; one possibility is to subject the permit to a resolutive condition, involving that certain destinations must not be traveled to with a certain capacity of passengers. If the number of passengers exceeds the number of passengers that are stipulated in the permit, the operator has no permit to travel to certain destinations. It is also possible to subject certain activities to natural events – *e.g.* extreme weather conditions. Furthermore, the compliance with ATCM-measures (Management Plans, Guidelines etc.) could be turned into a condition for the validness of a permit, if these measures are sufficiently precise and translated into German.<sup>654</sup> Hence, it would be possible to condition the existence of a permit to the compliance with general ATCM-measures, such as the general guidelines on tourism or more specific site guidelines. Such collateral clauses are to be considered as conditions (*Bedingungen*) and not provisos (*Auflagen*), since the compliance with them is constitutive for the validity of the permit.<sup>655</sup> If the condition is not fulfilled, no permit existed during the time that the activity occurred. Accordingly, a condition is a viable means for restricting authorizations for one single activity in Antarctica. If the operator does not fulfill the condition, the permit will automatically (*ipso iure*) *ex nunc* expire. The operator will act without a permit from this moment onwards. This can be punished with a fine (§ 36(1) No. 1 AUG). The same is true if the addressee acted negligently – *i.e.* without due care.

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<sup>651</sup> §§ 3(7)(1) AUG; 36(2) No. 2 VwVfG. Cf. as to the whole issue F. Kopp/U. Ramsauer 2012, § 36 MN 19. German administrative law distinguishes between two kinds of conditions: On the one hand, the resolutive condition, where the existence of the authorization will cease automatically in the case that the incident contained in the condition actually occurs. On the other hand, the suspensive condition, where the authorization will only come to existence, legally once the incidence contained in the condition actually occurs. Cf. as to this H. Weiß, in T. Mann/C. Sennekamp/M. Uechtritz (eds.), *Verwaltungsverfahrensgesetz Großkommentar*, 2014, § 36 MN 26.

<sup>652</sup> § 3(7) AUG. § 7(2)(3); 12(2) AUG do not stipulate conditions within the meaning of § 36(2) No. 2 VwVfG.

<sup>653</sup> Cf. to this notion H. Weiß 2014, § 36 MN 26.

<sup>654</sup> Cf. to this at 3.7.3.2.

<sup>655</sup> Cf. P. Tiedemann 2014, § 36 MN 64.

### 3.7.4 Conclusion

The following results can be stated for the legal status quo of Antarctic tourism in Germany:

- In Germany the Environmental Protocol is replaced by the AUG; the latter however has to be interpreted in the light of the former.
- The German legal system, in principle, recognizes authorizations of other States parties and the activities covered by such authorizations are not subject to a German permitting procedure.
- In general, the permit to undertake an activity within Antarctica may only be denied in accordance with the AUG if the activity has more than a minor or transitory impact and it cannot be ensured by provisos and conditions that the stipulations of the AUG will be complied with. If an activity has more than a minor or transitory impact, its permit falls within the margin of discretion of the Federal Environment Agency that is subjected to limited judicial review.
- The modalities of tourist activities may be restricted by the means of collateral clauses by the Federal Environment Agency. The most viable means in this regard is to subject the persistence of a permit to a condition, provided that the condition can be formulated precisely.

### 3.8 Final result – a lack of regulation of Antarctic tourism *de lege lata*

- There are no specific rules on Antarctic tourism deriving from the treaty law of Antarctic tourism. Thus, one has to take recourse to the general rules of international law that are applicable in the Antarctic Treaty area. These rules are only of limited relevance, however, for they are either formulated too broadly and no precise stipulations for Antarctic tourism can be deduced from them – *e.g.* this is case for the EIA and Art. 3 of the Environmental Protocol<sup>656</sup> – or they only regulate certain parts of tourist activities – such as the disposal of waste.
- The soft law of the Antarctic Treaty system entails many rules that specifically cover Antarctic tourism. These rules regulate the modalities of tourist activities, however, they are incapable of effectively concretizing the general rules of the Environmental Protocol with regard to Antarctic tourism. Thus, it remains unsettled, how many tourists are admissible within Antarctica, where tourism should occur and what kinds of activities should be carried out.
- An effective regulation of Antarctic tourism by the Consultative States is nevertheless required due to their special responsibility for the Antarctic Treaty area and also follows from the general principles of international environmental law.
- Furthermore, general principles of international environmental law also obligate third States to prevent damages to the Antarctic Environment and to evaluate risks for the Antarctic environment arising from tourist activities.
- Besides the norms of international law, Antarctic tourism is also subject to detailed norms of a private nature issued by IAATO, such as marathon guidelines. Additionally, IAATO asserts explicitly that tourist activities should not have more than a minor or transitory impact. However IAATO – as the representative of the tourism industry – cannot be expected to adopt rules that

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<sup>656</sup> Something else applies to the construction of new permanent infrastructure that is, according to the opinion of the authors, prohibited by the Environmental Protocol. However, no consensus of the Consultative States has evolved with regard to this issue.

fundamentally limit Antarctic tourism, since it has to strive for the aims of its member companies – according to its legal basis.

- Thus, Antarctic tourism lacks a normative framework that would effectively resolve the inherent tension between the goals of the Antarctic Treaty system – *i.e.* environmental protection, freedom of scientific research and the dedication of Antarctica as a natural reserve –, on the one hand, and the private and commercial use of Antarctica by tourist operators and tourists on the other hand. This tension contradicts the idea of the Environmental Protocol to erect a comprehensive system for the sake of the protection of the Antarctic Environment.

## 4 Proposals for a future regulation of Antarctic tourism

The following proposals aim to enable a sustainable Antarctic tourism in the next decades.<sup>657</sup> Only if the preservation of the Antarctic environment is successful, States and private actors will be able to use Antarctica in the future. This requires the Consultative States to make hard choices today that go beyond short-term economic interests. Such decisions have to be made by the Consultative States as trustees<sup>658</sup> of Antarctica for the entire international community and future generations.<sup>659</sup> They cannot be left to individual private actors.

The following part firstly contains proposals for rules for Antarctic tourism that close existing gaps. Secondly, it will be outlined how these proposals may be formally implemented. A distinction will be drawn between rules that concern ‘tourism management’ and rules concerning ‘tourism regulation’. By ‘tourism regulation’, an effective regulatory framework for Antarctic tourism is understood; in other words, this concerns the adoption of rules on the type, quantity and intensity of Antarctic tourism. These rules have to be agreed on by the Consultative States. ‘Tourism management’ denotes the factual and direct handling of Antarctic tourists and the implementation of the regulative framework. Tourism management does not necessarily have to be carried out by the Consultative States. All proposals are directed towards the object and purposes of the Antarctic Treaty system and on the basis of a debate on the regulation of Antarctic tourism that has been going on within the ATCM since 1966.<sup>660</sup>

### 4.1 Discussions on Antarctic tourism by the Consultative States

An effective regulation of Antarctic tourism by the Consultative States is required in order to preserve the Antarctic environment.<sup>661</sup> The Consultative States do not sufficiently comply with this requirement, notwithstanding the adoption of several ATCM-measures on tourism. As has been shown, there are up until today no ATCM-measures that adequately regulate the kind and scope of Antarctic tourism.<sup>662</sup>

This is true, although there have been numerous initiatives to regulate Antarctic tourism. The Consultative States have repeatedly discussed the introduction of so called ‘Areas of Special Interest’, involving the limitation of tourism to certain areas.<sup>663</sup> Initiatives in this regard can be traced over a thirty-year period but no viable results seem to have been achieved. The same applies *mutatis mutandis* to the adoption of a ‘Tourism Annex’ to the Environmental Protocol. The adoption of such an annex was already discussed during the preparation of the Environmental Protocol.<sup>664</sup> Shortly after the signature of

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<sup>657</sup> As to Antarctica as a resource cf. T. Bauer 2001, 41.

<sup>658</sup> See as to this 3.1.3.1.

<sup>659</sup> Cf. for this issue 3.3.

<sup>660</sup> Cf. note 11.

<sup>661</sup> As to this see 3.1.3 and 3.3.

<sup>662</sup> Cf. for this 3.8.

<sup>663</sup> Cf. ATCM VIII (1975), Recommendation VIII-8, para. 2(b) and Annex; ATCM X (1979), Final Report, para. 14; ATCM XI (1981), Final Report, para. 16; ATCM XXVII (2005), Final Report, para. 175; see also D. Vidas 1993, 198.

<sup>664</sup> Cf. as to this ATCM XI-1 (1990), Final Report, Annex E, 108 with further references; SATCM XI-2 (1991), Final Report, 23; cf. also ATCM XVI (1991), WP 2.



the adoption of the protocol, Chile, France, Germany, Italy, and Spain introduced a draft for such an annex.<sup>665</sup> The initiative was discarded with the argument that more evidence on the environmental impact of Antarctic tourism would be required before binding rules should be adopted.<sup>666</sup> The idea of a binding tourism annex was never entirely dropped<sup>667</sup> but is opposed by States that consider new binding rules to be unnecessary due to the regulation of Antarctic tourism through IAATO.<sup>668</sup>

The decade-long debate by the Consultative States on Antarctic tourism seems deprived of a long term goal.<sup>669</sup> Instead of resolving problems on Antarctic tourism proactively – i.e. to mitigate and prevent negative consequences before they occur –, the Consultative States only react *ad hoc* to negative incidents.<sup>670</sup>

This seems true as well for negotiations on an ATCM-level in recent years. There are a numerous proposals for regulations on Antarctic tourism; e.g. in 2011, an Intersessional Contact Group (ICG) led by the Netherlands was set up in order to develop a long-term and strategic vision on Antarctic tourism.<sup>671</sup> This ICG is currently concentrating on five highly relevant proposals concerning:

- the amelioration of information exchange;
- the consideration of cumulative environmental impacts of tourist activities;
- the prevention or regulation of the spread of tourist activities over the entire Antarctic Treaty area;
- giving priority to educational tourist activities;
- adoption of additional regulations with regard to tourist activities harmful to the Antarctic environment such as land-based tourism.<sup>672</sup>

The following part takes up these proposals, although it seems doubtful that they are implemented soon. The discussion about tourism on an ATCM-level neither lacks proposals, nor is a consensus on the general need to regulate Antarctic tourism absent.<sup>673</sup> What is lacking – despite all progresses in some details – are proposals that could create consensus among the Consultative States.

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<sup>665</sup> ATCM XVII (1992), WP 1.

<sup>666</sup> ATCM XVII (1992), WP 2, United Kingdom, 2; ATCM XVII (1992), WP 14.

<sup>667</sup> Cf. ATCM XXV (2002), WP 1, France; ATCM XXXI (2008), Final Report, para. 190.

<sup>668</sup> Cf. ATCM XXV (2002), Final Report, para. 116.

<sup>669</sup> As to this issue cf. already F. Auburn 1979, 517: “A major criticism of the consultative meetings is their slowness”.

<sup>670</sup> Cf. K. Bastmeijer 2010: ‘ad hoc character’; this can be exemplified with regard to the discussion on yacht tourism that only started subsequent to the damage of the Wordie House by a yacht crew; cf. as to this 2.2.2.

<sup>671</sup> Instructive as to this issue, K. Bastmeijer 2013, 143 et seq.

<sup>672</sup> ATCM XXXV (2012), IP 67. This Information Paper contained 18 proposals for new regulations on; as a result, the ICG agreed on five outstanding questions; ATCM XXXV (2012), WP 27 rev 1, 5 et seq.

<sup>673</sup> See as to this ATCM VIII (1975), Recommendation VIII-9: “Acknowledging that tourism is a natural development in this Area and that it requires regulation”; cf. also ATME (2004), para. 28; ATCM XXXI (2008), Final Report, para. 216.

## 4.2 Proposals for an effective management of Antarctic tourism

The management of Antarctic tourism is today mainly carried out by IAATO.<sup>674</sup> If the Consultative States want to shape and control the management of Antarctic tourism in the future, three possibilities may be considered alternatively:

- Proposal 1: Upgrading IAATO tourism management.
- Proposal 2: Enhanced tourism management by the Consultative States.
- Proposal 3: Tourism management by a Public-Private Partnership (PPP).

### 4.2.1 Proposal 1: Upgrading IAATO tourism management

One possibility for an enhanced management of Antarctic tourism would be to upgrade IAATO by the Consultative States. Instead of setting up their own structures for tourism management, States parties could use the existing tourism management by IAATO and integrate it into the Antarctic Treaty system.<sup>675</sup> The Consultative States would have the opportunity to take advantage of existing IAATO tourism management. These advantages consist of the direct access of IAATO to individual tourist operators as long as they are member companies. This possibility does not exist within a framework established under international law. Furthermore, relying on IAATO allows managing tourist activities that occur under the jurisdiction of third States which are not bound by the Antarctic Treaty system.<sup>676</sup>

The important role played by IAATO is already underlined today by many Consultative States.<sup>677</sup> Upgrading IAATO would also ensure that the tourism industry remains organized within one single association and does not dissociate.<sup>678</sup>

Upgrading IAATO could be achieved by one of the following models: The Consultative States could agree that only IAATO-members would have the right to carry out voyages to Antarctica.<sup>679</sup> This would allow concentrating all tourist activities within the IAATO-framework – as far as they can be controlled by the Consultative States. IAATO could be obliged in turn to fulfill the following tasks:

- transmission of all tourism-data to the ATCM-Secretariat in order to be fed into the Electronic Information Exchange System (EIES);
- recording and disseminating the location of tourist activities;
- monitoring the compliance with ATCM-rules, as far as possible.

Upgrading IAATO's status should not replace the adoption of further regulations on Antarctic tourism but could be seen as a supplement to such regulations. The idea would be for Consultative States to use the existing framework of IAATO in order to guarantee better protection of the Antarctic environment by being able to directly address individual tourist operators. On the one hand, IAATO would remain a

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<sup>674</sup> Cf. 3.5.

<sup>675</sup> ATME (2004), WP 4, 8.

<sup>676</sup> See 3.5.3.2.

<sup>677</sup> ATME (2004), WP 4, 8.

<sup>678</sup> For these risks cf. ATME (2004), WP 4, 6 et seq.

<sup>679</sup> ATME (2004), WP 4, 7 et seq.; ATCM XXVI (2003), WP 13, 6 et seq.

private legal entity on the basis of US law. On the other hand, it would be vested with rights and obligations by the Consultative States and thus would enjoy an official status within the ATCM-system.

Such an integration of a private entity into a structure of international law is rare. However, there are some examples for private standard setting, as for instance the Declaration of Helsinki of the World Medical Association (WMA), where the standard setting of private entities is integrated into the domestic law of States.<sup>680</sup>

However, there are reasons that have to be brought forward against this solution:<sup>681</sup> The status of IAATO – as a private organization on the basis of US-law – involves that it is legally bound to the aims of its members; the members of IAATO are – in contrast to the WMA for instance - commercial companies. In the end the task of IAATO can only be to create or preserve conditions that ensure the possibility for IAATO-members to make profits. The preservation of the Antarctic environment and the freedom of scientific research will only be strived for as long as these aims are compatible with the ultimate goal of member-companies, to make profits. Upgrading IAATO cannot structurally require this organization to aim its actions towards the goals of the Antarctic Treaty system and the goals of its members at the same time. Being a member-driven organization, IAATO remains dedicated to the goals of its members.

This proposal notwithstanding, it would be possible to limit the cooperation of Consultative States to those companies that are members of IAATO, e.g. by only granting access of these tourism operators to research stations, historical sites and ASPAS.<sup>682</sup> This would not seem to be an unjustified discrimination of other tourist operators by the competent national authorities<sup>683</sup> as long as only IAATO-operators would ensure compliance with high environmental standards. As has been shown above, IAATO has adopted a plethora of rules guaranteeing the protection of the Antarctic environment.<sup>684</sup> Against any upgrade of IAATO, however, one has to invoke the fact that the member structure and interests of IAATO are concentrated on operators offering expedition cruises and thus companies that offer land-based tourism will have disadvantages.

#### **4.2.2 Proposal 2: Enhanced tourism management by the Consultative States**

Another possibility for the amelioration of tourism management would be to vest the Secretariat with new tasks in this regard. This could be done by the Consultative States. This would allow the enhancement of data collection on Antarctic tourism and would enable a better monitoring of tourist activities in the Antarctic Treaty area.

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<sup>680</sup> The WMA is a private association; the Declaration of Helsinki – Ethical principles for Medical Research Involving Human Subjects, last modification made in October 2013, is available at: <http://www.wma.net/en/30publications/10policies/b3/>. References to the Helsinki Declaration are contained in some Acts of the German Länder; cf. e.g. § 15(3) Berufsordnung of the Landesärztekammer Baden-Württemberg.

<sup>681</sup> Cf. as to this 3.5.

<sup>682</sup> ATCM XXVI (2003), WP 23, 14 et seq.; ATME (2004), 8.

<sup>683</sup> Cf. the requirements of Art. 3 German Constitution prescribing the right to equal treatment.

<sup>684</sup> Cf. as to this 3.5.

#### 4.2.2.1 Enhancement of data collection and data distribution

Before proposals for a better collection of data on an ATCM-level can be made, it has to be understood why the data collected by IAATO are different to the data shared at the EIES.<sup>685</sup> This deviation might seem surprising if one considers that a major part of the data collected by IAATO is based on the Post Visit Reports (PVR) that have been formulated by the ATCM.<sup>686</sup> The difference in quality may be explained by two reasons:

First, as has been explained above,<sup>687</sup> until 2013 not all the data that was collected on a national level via the PVRs was submitted into the EIES. Second, and more importantly, IAATO collects tourism data directly: All IAATO-members are required by the IAATO-guidelines to submit a PVR in the aftermath of every Antarctic voyage.<sup>688</sup> This PVR will be collected and stored centrally by IAATO. The EIES, in contrast, is an indirect and decentralized system. A tourism operator has to submit its PVR in the aftermath of an Antarctic voyage to the competent national authority,<sup>689</sup> and the States party will subsequently submit this information via the EIES.<sup>690</sup>

An improvement would be, as a first solution, to let the Secretariat of the Antarctic Treaty collect all reports (PVRs and Advanced Visit Reports, AVR, alike) and process this information into statistical figures and hereby ensure a comprehensive data-collection at the ATCM-level. A tourism operator should be obliged by international law, after submitting the necessary information to its competent national authority, to submit all the reports to the Secretariat. This would require the creation of an improved and centralized EIES,<sup>691</sup> which is not any more a mere platform for data from the States parties but itself collects the data from the tourism operators. This could prevent the loss of information when national authorities submit their data to the EIES. Furthermore, it would be possible to monitor the compliance with ATCM-rules by tourist operators. The result would be a simultaneous collection of the same data by the Secretariat and IAATO which would allow for a review of the IAATO-data.

Alternatively, as a second solution, it would be possible to submit the data that has been collected by IAATO into the EIES. IAATO could receive a financial compensation for its support. This step would avoid a double collection of data; however, it would be impossible to review the IAATO-data by independent sources. Furthermore, there is a possibility that the Consultative States will – in the long-term – be brought into a disadvantageous position by the profound knowledge that is concentrated by IAATO.

The solutions mentioned above do not require that all the raw data held by the Secretariat should be accessible to all Consultative States. However, the processed data – containing information on the quantity and quality of Antarctic tourism – should be made accessible to the public. This transparency is in accordance with the principle of sustainable environmental protection, since the economic use of Antarctica and potential risks are made transparent; it is also in accordance with the mandate of the Con-

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<sup>685</sup> Cf. 2.1.3.1.

<sup>686</sup> Cf. as to this already ATCM XXXVI (2013), WP 33, 3 et seq.

<sup>687</sup> See 2.1.3.1 and 2.1.3.3.

<sup>688</sup> Cf. 3.5.3.2.

<sup>689</sup> ATCM XXVIII (2005), Resolution 6.

<sup>690</sup> ATCM XXXVI (2013), Decision 6, Annex.

<sup>691</sup> Cf. as to this Recommendation 1 New Zealand; ATCM XXXV (2012), IP 67; with regard to information-exchange in general cf. ATCM XXXV (2012), IP 67, 6.

sultative States to act as trustees on behalf of the entire international community for the benefit of the protection of the Antarctic environment.

It also would be possible to pursue a less far reaching approach, as a further alternative, that involves an indirect mechanism for data-collection. Thereby all States parties collect all PVRs and submit this data via the EIES but better rules concerning the monitoring of the obligations on data-collection and data-submission are adopted: The Secretariat could be vested with the competence to check whether the data submitted by the Consultative States is correct. This would require that the data of the Consultative States is compared with data from other sources, in order to be able to assess the accuracy of the data submitted by the Consultative States. The non-compliance with the obligations to collect and submit data could be sanctioned; for instance by 'naming and shaming' of States that do not comply with these duties. The result would simultaneously be a double collection of non-identical data compared to IAATO-data. The advantage would be to prevent a structural gap of knowledge between the Consultative States and IAATO and to ensure that the Consultative States are enabled to verify IAATO-data.

#### 4.2.2.2 Monitoring of tourist activities

An enhancement of the monitoring of tourism activities could be achieved, firstly, by making reinforced use of observers in Antarctica.<sup>692</sup> They could observe aircrafts and vessels used for tourist purposes or areas that are often frequented by tourists. The use of observers would be a good measure in order to gain a better understanding of compliance with rules applicable to tourism within the Antarctic Treaty area. It is already possible under the *lex lata* for the States parties to appoint observers in order to carry out inspections within the Antarctic Treaty area (Art. IX AT; 14 Environmental Protocol). Inspections have not been carried out so far in order to systematically monitor tourist activities within the Antarctic treaty area. From a legal viewpoint, however, nothing prevents States parties from carrying out systematic inspections on tourist vessels, aircrafts or semi-permanent camps. Observers are explicitly provided with the right of access to the entire Antarctic Treaty area, which includes the right to inspect all areas within the Antarctic Treaty area - not limited to the scientific research stations.<sup>693</sup> It is not possible however to effectively monitor vessels and aircrafts flying the flag of third-States.<sup>694</sup>

From a practical viewpoint, one might invoke against this proposal that inspections on research stations can be carried out more easily since they are immovable. Furthermore, all Consultative States do conduct scientific research within Antarctica and have knowledge on the practical implementation of environmental standards. Since tourism operators are only located within a few States and also the vast majority of tourists within Antarctica emanates from a few States,<sup>695</sup> an asymmetry arises among the different Consultative States that structurally makes a mutual observation difficult.

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<sup>692</sup> Cf. ATCM XXXIV (2011), Final Report, paras. 261 -268.

<sup>693</sup> Art. IX(2) and (3) AT: "Each Contracting Party which has become a party to the present Treaty by accession under Article XIII shall be entitled to appoint representatives to participate in the meetings referred to in paragraph 1 of the present Article, during such time as that Contracting Party demonstrates its interest in Antarctica by conducting substantial scientific research activity there, such as the establishment of a scientific station or the despatch of a scientific expedition. Reports from the observers referred to in Article VII of the present Treaty shall be transmitted to the representatives of the Contracting Parties participating in the meetings referred to in paragraph 1 of the present Article".

<sup>694</sup> ATCM XXXV (2012), IP 67, 5.

<sup>695</sup> See 2.2.1.

Thus, a further possibility might be to monitor tourist activities centrally by the Secretariat – or a newly created Public-Private Partnership (PPP), that would be maintained by the Consultative States as well as the tourism industry. All tourist expeditions – land-based, seaborne, and airborne – could be, similarly to the IAATO Ship tracker<sup>696</sup>, obliged to inform the Secretariat once a day of their position. This would allow a management of landings by the Secretariat. Furthermore, sustainable tourism could not only be managed but also – indirectly - be controlled in such a way. The costs could be recovered by obliging the operators to pay a fee.

#### 4.2.2.3 Tourist fees

It would further seem possible to require tourists to share the costs arising out of an enhanced management of Antarctic tourism. Thus, a fee could be charged upon entering the Antarctic Treaty area.<sup>697</sup> This would enable to finance a better tourism management by the ATCM-secretariat. A more substantial fee could also have a restricting effect on the numbers of tourists.<sup>698</sup>

### 4.2.3 Proposal 3: Tourism Management by a Public-Private Partnership (PPP)

If proposal 2 cannot be implemented, it would seem viable to carry out the proposed solutions in a further step by a new institution: The creation of a PPP – a new public-private organization – could be proposed that carries out the above-mentioned tasks and cooperates with all the stakeholders, *i.e.* the Secretariat, the Consultative States, as well as the tourism-industry in order to allow an effective management of Antarctic tourism and to guarantee sustainable environmental protection. A characteristic of the PPP is that it would be held by the States parties as well as by the tourism industry. A PPP would prevent to upgrade IAATO and IAATO would remain a member-driven private association of tourism operators that is primarily aimed to the commercial interest of its member companies and not to the common interests of the international community, *i.e.* peace, freedom of science, and environmental protection.

In the area of international standard setting, NGOs initiated by States already exist; as private organizations they can balance the public and private interests involved balance the economic interests and the common interests of the international community.<sup>699</sup> IAATO would be integrated as *one member* into the PPP and operators which are not organized within IAATO could also become members themselves.

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<sup>696</sup> Cf. 3.5.3.1.

<sup>697</sup> Vgl. also ATCM XXXV (2012), IP 67, 14: “obligatory payments”.

<sup>698</sup> E.g. the entrance-fee for the Galapagos is 100 US\$; these fees are used in order to finance the costs required in order to preserve these islands; cf. the Website of the Part available at: [http://www.galapagospark.org/nophprg.php?page=programas\\_turismo\\_tributo](http://www.galapagospark.org/nophprg.php?page=programas_turismo_tributo).

<sup>699</sup> Cf. e.g. Council for International Organizations of Medical Sciences (CIOMS), this is a private ‘international, non-governmental, non-profit organization’ in accordance with Swiss law and founded by WHO and UNESCO that has private members; more information is available at: <http://www.cioms.ch/>. The CIOMS International Ethical Guidelines for Biomedical Research Involving Human Subjects are rules by the CIOMS of outstanding importance, available: <http://cioms.ch/index.php/texts-of-guidelines>.

<sup>700</sup> See for instance the members of CIOMS, available at: <http://www.cioms.ch/index.php/2012-06-07-19-16-08/membership>.

The PPP, *mutatis mutandis* to Proposal 2, could directly collect all the report forms from the tourist operators in order to ensure a comprehensive data-collection and process this data into viable statistics. Furthermore, the PPP could be allowed to check the accuracy of the data shared by the States parties via the EIES and react to cases of non-compliance. It could be financed by fees that could be collected by States parties during the authorization or notification procedure.

#### 4.2.4 Conclusion

All three proposals (1. Upgrading IAATO, 2. Enhanced tourism management by the Consultative States, 3. Tourism management by a PPP) have specific advantages and disadvantages. The second proposal – *i.e.* enhanced tourism management by the Consultative States – seems to have the most benefits: It is only this solution which allows a better control of Antarctic tourism by the Consultative States and the Secretariat. It is far from certain – however – whether this proposal can be realized, since it would involve an upgrade of the Secretariat which might run contrary to the interests of some of the Consultative States.<sup>701</sup> Since it has the most advantages, it should nevertheless be tried - as first step - to realize this solution.

An alternative should be considered if proposal 2 cannot be implemented. Proposal 3 – *i.e.* tourism management by a PPP - seems to be a viable alternative. It would have a structural advantage compared to the upgrade of IAATO (Proposal 1). The structure of IAATO as a member-driven organization guided by commercial interests is a drawback of proposal 1; it cannot be ensured that the interests of the international community – such as the protection of the Antarctic environment, and the freedom of scientific research – will have priority over the commercial interests of the IAATO-members. Another reason against the upgrade of IAATO is the fact that IAATO today does not represent the tourism industry as a whole but is mainly focused on the interests of operators offering expedition cruises.

### 4.3 Proposals for an effective regulation of Antarctic tourism

In addition to the proposals for an effective tourism management made above, new regulations have to be adopted in order to restrict Antarctic tourism on a long-term. An effective future regulation can only be guaranteed by the Consultative States themselves. It is up to them to take the fundamental decisions concerning the future of Antarctic tourism.<sup>702</sup> An effective regulation has to focus on two aspects especially: On the one hand, an amelioration of the EIA with regard to the assessment of tourist activities. On the other hand, a stronger limitation of Antarctic tourism contained in the law.

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<sup>701</sup> It was only in the aftermath of a long-term discussion that the Consultative States could agree on setting up an ATCM-Secretariat; as to this cf. S. Vöneky/S. Addison-Agyei 2012, paras. 39 et seq.; for the initial negative attitude of the Consultative States on the establishment of such an institution, F. Auburn 1979, 518. The competences of the Secretariat are strictly confined by ATCM 2003, Measure 1. In particular, it has only limited legal personality and - capacity towards its host State, Argentina and not in relation to all Consultative States; ATCM XXVI (2003), Measure 1, Annex Art. 2.

<sup>702</sup> ATME (2004), para. 29: “It was stressed, however, that establishing the regulatory basis for the [tourism] industry was the primary responsibility of the State Parties”; cf. as to this, D. Liggett/A. McIntosh/A. Thomson/N. Gilbert/B. Storey 2011, 365.

### **4.3.1 Amelioration of the environmental impact assessment (EIA)**

The EIA has to be further developed with a view to assess tourist activities. This concerns the harmonization of diverging domestic procedures, a concretization of the broad notions and finally a better assessment of cumulative environmental impacts.

#### **4.3.1.1 Harmonization of diverging national procedures**

In order to achieve a stricter standardization of the EIA, a harmonization of the diverging domestic procedures is required. This concerns firstly, the question whether an authorization of tourist activities within Antarctica is required and which standards apply to such an authorization. With a view to ensuring a better control of compliance with the EIA, the competent authority should have the possibility to prohibit Antarctic activities which would contradict Art. 3 of the Environmental Protocol. It is furthermore important to link the domestic rules with the rules adopted on the ATCM-level in order to prevent activities that would circumvent rules contained in ATCM-instruments.<sup>703</sup>

Furthermore, a harmonization of the assessment of the environmental impacts of certain activities among the competent national authorities is required. In particular, it has to be clarified and determined which activities have more than minor or transitory impacts. Although the EIA remains a procedure that has to be implemented into national law by the States parties, a stronger harmonization is desirable not least because of the fact that Antarctic tourism takes place within a truly global market, exceeding national borders.<sup>704</sup> Such a harmonization could be made possible by a coherent practice of the States parties or an explicit agreement. This requires, however, that those States that issue permits are ready to agree to a concerted process that would carve out those situations in which in general a permit should be issued. It is only in this way that it can be ensured that the protection of the environment will not be undermined for economic reasons.

#### **4.3.1.2 Types of tourism with more than a minor or transitory impact**

A definition or at least concretization of the terms ‘minor or transitory impacts’ has not been agreed upon by the Consultative States, despite several initiatives in this direction.<sup>705</sup> It remains unsettled which tourist activities may have more than a minor or transitory impact on the Antarctic environment. A comprehensive and meaningful definition of these notions is required in order to effectively regulate

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<sup>703</sup> Cf. ATCM XXXVI (2013), WP 47, 8.

<sup>704</sup> Cf. as to this already, ATCM XXVII (2004), Resolution 3.

<sup>705</sup> See 3.1.1.4.



Antarctic tourism; such a definition is also possible under international law.<sup>706</sup> It is questionable, however, whether a consensus may be achieved on such a definition, since some States are not ready to limit their discretion with regard to the implementation of the Environmental Protocol.

In a first step, it is recommended to carve out specific categories in which a more than minor or transitory impact can be expected: This is to approved, e.g. for new permanent infrastructure for tourist activities;<sup>707</sup> it is to be expected that such buildings will result in more than a minor or transitory impact on the Antarctic environment, since they are erected for the continuous operation within the Antarctic territory. Furthermore, the Antarctic environment will be impaired by their operation, as has been shown above<sup>708</sup>. Lastly, the practice of the States parties in conducting a CEE for the construction of new scientific research stations – although scientific research is a privileged activity - also speaks in favor of the assumption that permanent infrastructure for tourist purposes will result in more than a minor or transitory impact on the Antarctic environment.<sup>709</sup>

The case of semi-permanent infrastructure is more difficult to decide. As semi-permanent infrastructure is defined by its construction in the summer and deconstruction in the winter<sup>710</sup> it cannot be excluded that it will have more than a minor or transitory impact on the Antarctic environment.

In any case, it seems that the relevant threshold of more than minor or transitory impacts will be crossed if semi-permanent infrastructure reaches an intensity of use that is comparable to scientific research stations. This is true because the environmental impacts caused by the construction and operation of such a semi-permanent camp would be equal to a scientific research station, although in the former no privileged activities of scientific research are carried out. This is the case for camps that are constructed multi-seasonal on the same site such as the Union Glacier Camp, where about 400 people stay during

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<sup>706</sup> That a clarification of terminology outside the actual treaty is possible may be shown e.g. with regard to the definitions of a norm contained within Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques of 10 December 1976, entered into force 5 October 1978 (1108 UNTS 151): The States Parties adopted definitions within so-called ‘Understandings’ that are not part of the Convention itself. Art. 1 ENMOD requires States parties “not to engage in military or any other hostile use of environmental modification techniques having *widespread, longlasting or severe effects* as the means of destruction, damage or injury to any other State Party.” (italics added). Within the understandings, it is laid down that ‘widespread’ means sever hundred square-kilometers, ‘longlasting’ means several months – i.e. at least three to four months –, and ‘severe’ requires serious or significant disruption or harm to human life, natural and economic resources or other assets”. See for the evolution of treaty norms by subsequent resolutions 4.4.2.1.

<sup>707</sup> Cf. as to this already the assessment by IAATO; ATCM XXXV (2012), Final Report, para. 93: “IAATO stated that it did not support the building of permanent infrastructures for tourism purposes as this would contradict the organisation’s vision and mission of having a no more than minor or transitory impact”.

<sup>708</sup> See as to this 3.1.1.4.

<sup>709</sup> Available at: [http://ats.aq/devAS/ep\\_eia\\_list.aspx?lang=e](http://ats.aq/devAS/ep_eia_list.aspx?lang=e).

<sup>710</sup> As to the term permanent infrastructure, cf. 1.2.3.1.

one season<sup>711</sup> and up to 80 people at the same time; this corresponds to a larger scientific research station within the Antarctic territory.<sup>712</sup>

The view that is forwarded by the operator of Union Glacier and IAATO, whereby semi-permanent infrastructure cannot *per se* have more than a minor or transitory impact on the Antarctic environment because it will be deconstructed at the end of the season,<sup>713</sup> is not convincing. This line of argumentation shows that the – highly delicate – differentiation between permanent and semi-permanent infrastructure threatens to obscure the true core of the problem:<sup>714</sup> If a certain area is used by a certain number of people for tourist activities of a high scale and intensity, *i.e.* a comparable intensity to a scientific research station – then it should be prognosticated that the activity will have more than a minor or transitory impact. This also accords with the practice of the States parties which consider that the operation of a research station will result in more than a minor or transitory environmental impact, especially if the operation is carried out repeatedly on one location.<sup>715</sup> If States would privilege the assessment of tourist activities over scientific research stations, this would not only be self-contradictory but also be incompatible with the privilege of scientific research as prescribed by the Environmental Protocol.

It is therefore recommended that States parties agree to shift the burden of proof in these types of situations: For an intensive use of the Antarctic by tourists, it should generally be considered that such use will have more than a minor or transitory impact on the Antarctic environment. Thus, it should be prognosticated that the operation of semi-permanent camps will have more than a minor or transitory impact on the Antarctic Environment. Accordingly, such activities should be subjected to a CEE. The same applies *a fortiori* to permanent infrastructure. The operator can use the occasion of a CEE in order to show that their operation will not have more than a minor or transitory impact.

Such a classification and a shift of the burden of proof for certain kinds of tourism in Antarctica would not only be a reasonable and hence justified differentiation between the different tourism operators, but would also mean a less intrusive limitation because each general classification would be reversible in a certain case. This kind of classification, linked with a shift of the burden of proof, is also in accordance with the precautionary principle, as recognized by customary international law as well as the Environmental Protocol:<sup>716</sup> This is true because on the basis of plausible assumptions on the negative impact of certain activities, States may react by classifying certain activities as potentially threatening to the Antarctic environment. Therefore they do not refrain from taking necessary actions because of the lack of

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<sup>711</sup> See as to this note 93.

<sup>712</sup> The German station Neumayer III accepts 50 people within the Antarctic summer. The scientists – whose number has grown in the last years and now comprises up to 40 persons – use the station for several days or weeks as a bases for season-works in the vicinity of the station; cf. CEE Neumayer-Station III, draft, 2004, 11, 34, available at: [http://www.awi.de/fileadmin/user\\_upload/Infrastructure/Stations/Neumayer\\_Station\\_III/NMIII-Umwelt.pdf](http://www.awi.de/fileadmin/user_upload/Infrastructure/Stations/Neumayer_Station_III/NMIII-Umwelt.pdf). Cf. also ATCM XXXIV (2011), IP 87, ASOC, 4 et seq.

<sup>713</sup> Antarctic Logistics & Expeditions Adventure Network International, Environmental Documentation Union Glacier, 2013 (January 2004 Update), IEE Submission to the US Environmental Protection Agency, 54 available at: [http://ats.aq/documents/EIA/01571enALE%20\\_%20IEE\\_4\\_13-14.pdf](http://ats.aq/documents/EIA/01571enALE%20_%20IEE_4_13-14.pdf); ATCM XXXII (2009), IP 101, IAATO, 6 et seq.

<sup>714</sup> ATCM XXXIV (2011), IP 87, 5.

<sup>715</sup> As to the assessment of environmental impacts of research station cf. e.g. ATCM XX (1996), IP 2, 2 et seq.: “Activities likely to have more than a minor or transitory impact on the Antarctic environment include [...] the construction and operation of a new research station”.

<sup>716</sup> As to the precautionary principle see 3.3.

scientific evidence<sup>717</sup> concerning the potential damage. Conversely, omitting regulation because of the lack of scientific evidence would constitute a violation of the precautionary principle.

#### 4.3.1.3 Consideration of cumulative environmental impacts

Furthermore, it is proposed to evolve the EIA in order to assess the cumulative impacts of tourist activities on the Antarctic environment.<sup>718</sup> A tourist activity should not be considered in isolation but is to be assessed against the background of an interplay with other tourist activities. It is only in this way that the EIA can fulfill its purpose of preventing future environmental damage by the early recognition of potential hazards.<sup>719</sup>

This requires every State party to carry out the EIA with adequate precision. Subsequently, the information has to be collected centrally and shared on the EIA platform of the Secretariat with the other States parties. When conducting an EIA, a State has to be obliged to require the following questions to be answered by a tourist operator:<sup>720</sup>

- Which activities have been carried out in the past, are being carried out at present or are planned for the future?
- How many people have been involved in past, are involved at present or will be involved in the future?
- Which places have been visited in the past, are visited at present or will be visited in the future?

Additionally, a better assessment of the environmental impacts is required by carrying out on-site monitoring.<sup>721</sup> This could be carried out by the Antarctic programs of the Consultative States, independent scientists, or the tourism industry itself if observers are employed.<sup>722</sup>

Furthermore, the ecological characteristics of each individual site are to be considered: Their vulnerability has to be measured by ecological criteria – *e.g.* flora, fauna, and ice-cover. In addition, the extent and intensity of human activities occurring at one site is to be determined. Furthermore, the questions of which scientific and tourist activities are presently carried out, have been carried out in the past and will be carried out in the future on a specific site have to be answered. On the basis, the environmental impact of a planned activity can be assessed. If a site lies within a highly frequented region, the threshold of more than minor or transitory impacts may be crossed although the activity assessed in isolation would not be considered to have more than minor or transitory impacts.

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<sup>717</sup> The causality between tourism and environmental damages is not sufficiently examined; it is unclear for instance whether the decrease of the albedo effect – *i.e.* the reflection coefficient of the Earth to the solar irradiation – in Western Antarctica may also be related to the growth of tourism in Western Antarctica; as to the change of the Albedo that is proven by studies of NASA cf. Frankfurter Allgemeine Zeitung, 257, 5 November 2014, N1

<sup>718</sup> As to the notion of cumulative environmental impacts cf. 3.1.1.4.

<sup>719</sup> A. Epiney 2012, para. 1.

<sup>720</sup> A. Hemmings/R.Roura 2003, 22.

<sup>721</sup> ATCM XXXV (2012), IP 67, 8.

<sup>722</sup> ATCM XXXV (2012), WP 27 rev 1, 9 et seq.

Here a classification in the sense of a refutable permission by the States parties, according to which every further tourist activity in certain areas has more than a minor or transitory impact due to the already existing tourist use, would be useful.

Such a development of the EIA would involve a closer link of the domestic procedures to the rules of international law. On the other hand, it has to be underlined that the comprehensive assessment of complex environmental impacts requires a stronger coordination amongst the States parties. It is only this way that the assessment of tourist activities can be carried out and evaluated precisely with a view to certain regions,<sup>723</sup> as required by the purpose to protect the Antarctic environment.

### 4.3.2 Restricting Antarctic tourism

The following proposals limit the types, extent, and locations of Antarctic tourism. They also aim at enhancing the compliance with existing rules of the Antarctic Treaty system by adopting preventive and repressive measures.

#### 4.3.2.1 Prohibitions

The decisive criteria for prohibiting activities within the Antarctic Treaty area emanate from the purposes of the Antarctic Treaty system. Tourism is a 'neutral', *i.e.* neither privileged nor prohibited activity according to the Antarctic Treaty system. Nevertheless, it is proposed to prohibit two categories of tourist activities on an international level:

First, all tourist activities with more than minor or transitory impact should be prohibited. This may lead to an unequal treatment of scientific and tourist activities. This discrimination is justified, however, with a view to Art. 2, 3(3) of the Environmental Protocol. The Environmental Protocol privileges research activities over tourist activities.<sup>724</sup> Thus, treaty law justifies tolerating more than minor or transitory impacts for scientific activities. In favor of this can be brought forward, the argument that the privilege for scientific activities is grounded within a common interest of the entire international community. Science, understood as actions whose content and form are to be seen as a serious and systematic attempt to achieve the truth and to disseminate<sup>725</sup> those truths to a scientific community, is geared towards common interest – *i.e.* truth.<sup>726</sup> Thus, science serves mankind and the international community as a whole, independent of who carries out the scientific activity or whether applied scientific research or basic scientific research is involved.

Tourism, in contrast does not serve the international community as a whole, but only individual tourists and tourism operators. It is therefore justified that it is not privileged by international law. Hence, it

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<sup>723</sup> As to the whole issue see ATCM XXXV (2012), IP 67, 8.

<sup>724</sup> Cf. 3.1.1.4.

<sup>725</sup> Cf. in this regard the Federal Supreme Court on Art. 5(3) of the German Constitution: BVerfGE 35, 79 (113).

<sup>726</sup> Examples for the usefulness for the wider public of Antarctic scientific research are research on the size of the ozone hole that are carried out within Antarctica; cf. as to this Alfred Wegner Institut, Klimaforschung die polare Perspektive, available at:

[http://www.awi.de/fileadmin/user\\_upload/Research/Research\\_Divisions/Climate\\_Sciences/Climate\\_Sciences/Die\\_polare\\_Perspektive.pdf](http://www.awi.de/fileadmin/user_upload/Research/Research_Divisions/Climate_Sciences/Climate_Sciences/Die_polare_Perspektive.pdf).

cannot be argued that tourist activities may impair the Antarctic environment through more than minor or transitory impacts.<sup>727</sup>

However this kind of impairment has to be approved for permanent infrastructure for tourist purposes as well as land-based tourism with semi-permanent infrastructure that reaches an intensity that is comparable to a scientific research station. Furthermore, tourist activities may be subsumed thereunder that in sum – *i.e.* cumulatively – have more than a minor or transitory impact on the Antarctic environment. In areas affected by such activities, no further tourist activities should be carried out.<sup>728</sup>

Additionally, those activities that cannot be carried out *per se* in accordance with ATCM-rules should be prohibited. It is questionable whether a violation of international law is given if marathons within Antarctica are conducted. It has been argued by a Consultative State that marathons would distract the work of scientific research stations and thus violate Resolution 4 (2007).<sup>729</sup> This line of argumentation fails to acknowledge that marathons can be carried out in accordance with the legal rules.<sup>730</sup> In so far as this is the case, a general prohibition of marathon-events in Antarctica cannot be justified. Other tourist activities that *per se* cannot be carried out in accordance with ATCM-rules are not apparent until now, although they are theoretically thinkable; if *e.g.* non-alien species such as dogs would have to be introduced for a tourist activity.<sup>731</sup>

It seems difficult to justify any further prohibitions. Thus, it is unclear on which legal bases tourist activities could be prohibited in general because of the risks for the participants and thereby the Antarctic environment, as long as such activities comply with the Antarctic Treaty system and do not imperil science in Antarctica. The assessment of risks is a case by case decision and also depends decisively on the capabilities of the participants.<sup>732</sup>

Something similar applies to a prohibition of activities that do not have an educational function.<sup>733</sup> The decisive criteria for the assessment of activities within the Antarctic Treaty area are the purposes of the Antarctic Treaty system and it remains unclear on which bases criteria such as the ‘utility’ of tourist activities could be developed. However, it may be derived from the Environmental Protocol that amongst tourist activities, those should be privileged serving environmental goals through information, education etc. Thus, in the case of conflict between two or more tourist activities, a priority should be given to such types of tourism over tourism that has no educational impact whatsoever.

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<sup>727</sup> As to the whole issue, cf. ATCM XXX (2007), WP 13; also ATCM XXXV (2012), IP 67, 11.

<sup>728</sup> One example is the causation of footpath erosion on ice-free areas on Barrientos Island; further tourist activities were abandoned in the area concerned; ATCM XXXVI (2013), IP 102.

<sup>729</sup> Cf. ATCM XXXII (2009), WP 54, 2. Subsequent to the discussion an ICG was created, that has so far not made any recommendations for further measures.

<sup>730</sup> H.U. Peter/C. Braun/S. Janowski/A. Nordt/M. Stelter 2013, 90 et seq. The organizers of the marathon carried out in the vicinity of the Chilean research station Comandante Frei reacted to the critique; today a better compliance with ATCM rules may be approved; cf. ATCM XXXIII (2010), WP 65, 4; ATCM XXXVII (2014), WP 50, 3 et seq.

<sup>731</sup> See 3.1.1.4.

<sup>732</sup> Cf. for a different view the proposals submitted by Germany, ATCM XXXVI (2013), WP 47, 8.

<sup>733</sup> As to the privilege of educational activities; cf. ATCM XXXVI (2013), WP 47, 3.

### 4.3.2.2 Limitations

#### Regulation of adventure tourism

Limitations of certain tourist activities seem to be a viable and effective alternative to prohibitions. Some States parties consider that adventure tourism would be a great safety-risk. Since the adoption of Resolution 6 (2014), all States parties are encouraged to assess the risk arising out of tourist activities.<sup>734</sup> An adventurous activity may be carried out if it is ensured and a sufficient emergency planning exists.<sup>735</sup> Furthermore, it has to be guaranteed that no recourse to national scientific programmes for search and rescue will be necessary.<sup>736</sup>

As a whole the regulations on adventure tourism are incomplete: ATCM-rules that require the operator to ensure that all participants are physically capable of carrying out such activities are lacking. Particularly, it should be ascertained that expedition leaders are sufficiently trained and experienced in order to carry out such activities in Antarctica. Furthermore, it should be guaranteed that the equipment required is available and operates under Antarctic conditions.<sup>737</sup>

In order to effectively implement such regulations, a special burden of proof is required: The operator has to prove to the competent national authority that he or she is enabled to carry out the offered activities.<sup>738</sup> A certificate could also be considered for operators that could evidence the safe performance of risky activities within the Antarctic Treaty area. Such a certificate could either be issued by the PPP, proposed above, or by the competent national authority.

#### Limiting the numbers of Antarctic tourists

It is also possible to adopt a provision that would limit the numbers of Antarctic tourists. Several solutions are reasonable that also could be combined with each other:

- A maximal number of tourists in the whole Antarctic Treaty area could be agreed upon. Their amount would have to depend on the special needs of Antarctic environmental protection. It would also be possible to limit various kinds of tourism by imposing quotas.<sup>739</sup> Land-based tourism – considering that this form of tourism has the most harmful impacts on the Antarctic environment – should be limited the most; over-flights – considering that this form of tourism has less harmful impacts on the Antarctic environment – could be handled the least restrictively.
- Additionally, it would be viable to establish a local area management by imposing a maximum number of tourists and landing for a certain area per season. This would seem especially reasonable within the Antarctic Peninsula in order to ensure a better management of the landing sites. Once the maximum number of tourists per season is reached, a landing site may not be used for regular landings anymore. Such quotas could be implemented by the ship scheduler<sup>740</sup>: A vessel

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<sup>734</sup> ATCM XXXVII (2014), Resolution 6.

<sup>735</sup> ATCM XXVII (2004), Measure 4.

<sup>736</sup> ATME (2004), WP 8, 4, 6 et seq.

<sup>737</sup> ATME (2004), WP 8, 4, 7.

<sup>738</sup> Cf. ATME (2004), WP 8, 4, 7.

<sup>739</sup> See in this regard the regulations on New Zealand Sub-Antarctic Islands, ATCM XXXVI (2013), WP 47, 10.

<sup>740</sup> Cf. as to this 3.5.3.2.

may only book a landing site, as long as the maximum number of tourists has not been reached. It would be possible in this context to introduce an ATCM-ship-scheduler or to rely on the ship scheduler of IAATO.

### **Limitation of areas used for tourist purposes**

Additionally, it would be possible to reach a spatial limitation of tourist activities within the Antarctic Treaty area. On the one hand, the Consultative States could adopt management plans for ASPAs that contain a prohibition of tourist activities.<sup>741</sup> On the other hand, it would seem possible to enlarge such ASPAs – *i.e.* APSAs prohibiting tourist activities – due to environmental reasons, since the Environmental Protocol does not make any requirements on their size.<sup>742</sup> This would have the benefit of barring tourist use for parts of the Antarctic continent that so far have been little impacted by tourist use.<sup>743</sup>

Such far reaching measures would constitute a fundamental rupture with the previous practice of the State parties. ASPAs are ‘special’ areas that require ‘special’ protection of the Antarctic environment – *i.e.* exceeding the general level of environmental protection of the Environmental Protocol.

Conversely, it could be argued in favor of a tourism-free ASPA that today’s extent of tourist activities was not foreseeable when the Environmental Protocol was adopted. The protection of the intrinsic value of Antarctica can only be guaranteed if large parts of Antarctica are barred for tourist use.

A limitation of tourist areas by means of ASMAs is not recommended. It is only within ASPAs where management plans can restrict the entry of such areas by requiring a domestic permit. ASMAs, in contrast, are used by the current practice to regulate the precise modalities of tourist rather than denying access for a certain purpose categorically.

A further possibility would be to – conversely – restrict tourism to certain areas of tourist interest.<sup>744</sup> According to this conception, Antarctic tourism would be generally prohibited within the Antarctic Treaty area with the sole exception of areas of special tourist interest, where tourism would remain allowed.

### **4.3.2.3 Prevention of non-compliance**

In order to prevent non-compliance with the purposes of the Antarctic Treaty system, two kinds of measures have to be distinguished: On the one hand, preventive measures that shall ensure in the run-up that those tourism operators who do not comply with the applicable rules within the Antarctic Treaty area do not reach the Antarctic Treaty area. On the other hand, repressive measures that will *ex post* sanction cases of non-compliance.

### **Preventive measures on the basis of port State control?**

A preventive measure in the field of seaborne tourism, in order to ensure compliance with the rules protecting the Antarctic environment within the Antarctic Treaty area, could be a regional memorandum of

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<sup>741</sup> Cf. 3.1.1.4.

<sup>742</sup> The largest APSA (*i.e.* ASPA No. 152 ATCM XXXII (2009), Measure 10, Annex; available at: [http://ats.aq/devPH/apa/ep\\_protected\\_detail.aspx?type=2&id=56&lang=e](http://ats.aq/devPH/apa/ep_protected_detail.aspx?type=2&id=56&lang=e)) comprises today 915.8 km<sup>2</sup>. Legally, nothing prevents States to enlarge ASPAs, in order to prevent tourist activities within a considerable part of Antarctica – roughly a third or half of Antarctica – by setting up a tourism free ASPA.

<sup>743</sup> Critically in this regard ATCM XXXV (2012), IP 67, 9.

<sup>744</sup> Cf. as to this note 662 with further references.

understanding<sup>745</sup> for States in the Southern hemisphere adjacent to the Antarctic Treaty area – similar to the regional memorandum for port State control, in order to enforce environmental standards in the area of the North Sea<sup>746</sup>. This measure could contribute to guarantee for the compliance with international standards applicable for tourist vessels on route to Antarctica.<sup>747</sup> It would allow for the States concerned enforcing MARPOL, SOLAS, and other IMO-treaties on ships not flying their flag.<sup>748</sup>

In contrast, the enforcement of rules of the Antarctic Treaty system by the means of port State control cannot be advised. Since the Antarctic Treaty, as well as the other treaties of the Antarctic Treaty system, do not provide for port State control, the port State may currently only rely on port State control in order to enforce norms of the law of the sea *vis à vis* a vessel flying a flag of another State.<sup>749</sup> It would be thinkable to prohibit a ship on route to Antarctica to sail if no proof can be presented that an EIA of a State party to the Environmental Protocol has been carried out with regard to the Antarctic activity.

The compliance of such a procedure, however, with international economic law, the law of the sea,<sup>750</sup> and the law of treaties<sup>751</sup> is far from certain and raises difficult questions. Port State control for the norms of the Antarctic Treaty system is also rejected by the Consultative States.<sup>752</sup>

### Repressive measures: penal sanctions

In order to enhance compliance with the legal rules applicable within the Antarctic Treaty area, it is also possible to adopt penal norms sanctioning violations of the Antarctic Treaty system. The Consultative States could be obliged by virtue of international law to sanction non-compliance with national authorization- or notification procedures.<sup>753</sup>

Additionally, States could be empowered to cooperate in implementing such penal sanctions. This concerns foremost the possibility of empowering States to take measures of extra-territorial jurisdiction, *i.e.* the exercise of penal jurisdiction in the Antarctic Treaty area. However, a drawback is that this could be countered by non-claimant States like Germany: In accordance with their understanding of Antarctica as an area beyond national jurisdiction, they would have to insist that no legal bases empowering States to exercise jurisdiction beyond their borders are required for penalizing actions or omissions occurring

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<sup>745</sup> Memoranda of understanding are non-binding treaties; cf. as to this M. Fitzmaurice 2012, para. 20.

<sup>746</sup> Cf. e.g. Paris Memorandum of Understanding on Port State Control of 26 January 1982, 22 ILM, 1.

<sup>747</sup> ATME (2007), WP 7, 6. Cf. ATCM XXXII (2009), Decision 7.

<sup>748</sup> Cf. 3.2.6.

<sup>749</sup> Cf. 3.2.6.

<sup>750</sup> This concerns in particular the relationship with Art. 292 UNCLOS, whereby a State may demand the prompt release of a detained vessel.

<sup>751</sup> This poses the problem of the effects on third States of the Environmental Protocol; cf. as to this 3.1.1.4.

<sup>752</sup> Cf. note 388.

<sup>753</sup> This concerns the introduction of transitional penal provisions. These consist, on the one hand of interstate treaty-based obligations penalizing an act or omission and, on the other hand, the implementation of these penal provisions *vis à vis* an individual in accordance with domestic law. This proceeding is applied in order to counter numerous criminal activities exceeding national borders, such as illicit traffic in drugs, human trafficking, and wildlife-poaching; cf. N. Boister 2012, 13 et seq.



within the Antarctic Treaty area.<sup>754</sup> The exercise of extra-territorial jurisdiction in Antarctica does – according to this view – not impair the sovereignty of another State.

This problem could be circumvented by including a reference to Art. IV AT. The fact that States are empowered to exercise jurisdiction outside their territory may not be used as an argument regarding the existence of claims within the Antarctic Treaty area.

## 4.4 Implementation of the proposals

The adoption of new legal rules on Antarctic tourism requires consensus amongst the States parties. The discussion on a ‘Tourism Annex’ the difficult negotiations in the run-up to an Annex on Liability and the rather slow ratification process of the latter, shed a light on the difficulties that would be caused by negotiating a ‘Tourism Annex’; reaching an agreement on such an annex might take several years. Despite all this, in the long-term, the aim of agreeing on rules on Antarctic tourism in the form of a treaty or protocol should not be lost out of sight in order to adopt binding rules on Antarctic tourism. In the short-term, however, single rules - on which consensus might exist – can be adopted as soft law within the Antarctic Treaty system.

### 4.4.1 Modification of the Environmental Protocol

The proposals for Antarctic tourism that have been made above could be turned into binding international law by modifying the Environmental Protocol. Two alternative ways would be possible in this regard:

- First, the Environmental Protocol itself could be supplemented (Art. 25 (1) Environmental Protocol; Art. XII(1)(b) AT).
- Second, there is a possibility of adopting a separate ‘Tourism Annex’ (Art. 9 (2) Environmental Protocol; Art. IX AT).

Although these are two alternative forms of modifying the treaty framework, the differences between those two alternatives should not be overstated. Both forms of modifications of the Environmental Protocol require a ‘double consensus’ amongst the Consultative States: First when the proposed modifications are adopted and second when those modifications enter into force by a ratification of all the Consultative States in accordance with internal procedures. Furthermore, a ‘Tourism Annex’ would not be inferior to the main part of the Environmental Protocol (Art. 9 (1) Environmental Protocol). It would – as far as no special provisions would be adopted – derogate, in accordance with the rules of *lex specialis* and *lex posterior*, from more general rules of international law.<sup>755</sup>

However, it can be stated that a modification of the Environmental Protocol would be preferable to the adoption of a new ‘Tourism Annex’ since the realization of such a modification seems to be more realistic; the Consultative States have already rejected the adoption of a separate Annex on several occasions. On the other hand it is possible to integrate the proposal for new rules mentioned above within the Environmental Protocol as only few new rules are necessary.

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<sup>754</sup> Cf. as to this F. Jeßberger 2011, 197.

<sup>755</sup> As to the principle of *lex posterior* cf. Art. 30(3) VCLT. Cf. as to the principle of *lex specialis* ICJ, Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 8 July 1996, para. 25.

All the proposals that have been made could likewise be integrated into a new ‘Tourism Annex’: This is true as far as the enhancement of the EIA with regard to tourist activities is concerned and applies also to a stronger restriction of Antarctic tourism. All of this could be agreed if and as far as a consensus between the Consultative States exists.

#### 4.4.2 ATCM rules

The adoption of *all* forms of (non-treaty) ATCM-rules also requires a consensus among the Consultative States.<sup>756</sup> This means that no Consultative State may vote against a proposal. Nevertheless, as far as the legal status of these rules is concerned, notable differences exist.<sup>757</sup>

##### 4.4.2.1 Resolutions

A non-binding resolution – being international soft law – may function as a forerunner of binding rules on Antarctic tourism. A resolution does not have any binding force, nevertheless it may determinately influence the interpretation of an international treaty.<sup>758</sup>

If it is not possible to agree on a rule in the form of a resolution, the probabilities would seem equally low to codify such a rule within a treaty. A resolution requires an unanimous vote of the Consultative States, only and no further ratification.<sup>759</sup> Most of the above mentioned proposals for new rules could be – as a first step – agreed upon by a resolution. In particular, as far as the rules involving a penalization of non-compliance and the management-plans<sup>760</sup> are concerned, a wording would have to be used which underlines the optional and non-mandatory character of the resolution.

A limitation of the numbers of Antarctic tourists in certain areas<sup>761</sup> could be implemented by resolutions on site guidelines. Already today such resolutions deviate from the general rules – e.g. as far as the maximum numbers of tourists allowed on land at one time are concerned.<sup>762</sup> Nothing speaks against including such numbers per season.

As far as the amelioration of the EIA is concerned, a resolution could already have a significant normative value. The States parties have already agreed upon guidelines on an EIA in the form of a non-binding resolution.<sup>763</sup> It would therefore be possible to adopt guidelines on the EIA with a view to tourist activities. Such a resolution should relate to the terms used in the Environmental Protocol with regard to the EIA. As to the terms of more than a minor or transitory impact used within Art. 8 of the Environmen-

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<sup>756</sup> ATCM XXXIV (2011), Decision 2, Annex 1 Rule 24: “[...] Measures, Decisions and Resolutions, as referred to in Decision 1 (1995), shall be adopted by the Representatives of all Consultative Parties present”. These rules could be modified; this would also require, however, a consensus among the Consultative States; *ibid.* para. 53.

<sup>757</sup> In general a Resolution may be invoked authoritatively in the interpretation of a legal term (Art. 31(3)(b) VCLT).

<sup>758</sup> Cf. Report by ILC Special Rapporteur Georg Nolte (2013), UN – Doc. A/CN.4/660, para. 70 with further references.

<sup>759</sup> On the discussion of a requirement to consult the German Parliament on important international soft law in accordance with the German Constitution; cf. S. Vöneky 2013a, MN 24 et seq.

<sup>760</sup> The general practice of the Consultative States is to adopt these instruments as measures.

<sup>761</sup> Cf. 4.3.2.2.

<sup>762</sup> Cf. 3.1.2.3.

<sup>763</sup> ATCM XXVIII (2005), Resolution 4, Annex.

tal Protocol, the following should be clarified: land-based tourism with permanent and semi-permanent infrastructure has *prima facie* more than a minor or transitory impact.

With regard to the prohibition of tourist activities with more than a minor or transitory impact, the States parties could furthermore clarify that such activities are incompatible with the obligation of Art. 3(2)(a) of the Environmental Protocol to limit adverse effects on the Antarctic environment. However, it must be laid down that scientific activities are not part of the prohibition due to the privilege of science in accordance with Art. 3(3) of the Environmental Protocol.

By the means of resolutions alone, however, not all the above-mentioned proposals can be implemented. The creation of a PPP could only be suggested by a resolution and requires – as does the upgrading of IAATO – binding rules of international law.<sup>764</sup>

#### 4.4.2.2 Measures

States Parties can regulate all questions concerning the Antarctic Treaty area in legally binding by adopting measures. All of the proposals made above could be agreed upon by a measure. The entry into force of a measure is similar to the entry into force of an international treaty: A measure does not only require the adoption of all States parties by consensus but also additionally requires an approval, i.e. ratification.<sup>765</sup> This may take some time; Measure 4 (2004) concerning the emergency planning and insurance of tourist activities has so far not entered into force.<sup>766</sup>

Nevertheless, it may be recommended to enshrine measures that have already achieved consensus among the States parties in order to adopt binding rules of international law. Measures have one essential advantage with regard to a modification of the Environmental Protocol – by modification of the Protocol itself or the addition of a new ‘Tourism Annex’. Those two forms of modifications would only bind the States parties to the Environmental Protocol.<sup>767</sup> The instrument of a measure, in contrast, allows the Consultative States to adopt binding rules for all the States parties to Antarctic Treaty, and thereby enlarge the scope of such a rule. This limited third party effect results from Art. IX(4) AT whereby measures become effective – *i.e.* for all States Parties –, once they have been approved by the Consultative States.<sup>768</sup>

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<sup>764</sup> As a private organization the PPP would – as any NGO – have to be created in accordance with the domestic law of the respective States party where it will be located; e.g. the CIOMS which has been initiated by WHO and UNESOC and acts on the basis of Swiss law; cf. note 699 for further details.

<sup>765</sup> This has been criticized of several States parties; cf. in particular, ATCM XXXV (2012), IP 67, 7. The United Kingdom had proposed to foresee the automatic entry into force of all Measures one year subsequent to their adoption; cf. ATCM XXV (2002), WP 20, Appendix, 2.

<sup>766</sup> See 3.1.2.1.

<sup>767</sup> Cf. 3.1.4.2.

<sup>768</sup> Cf. as to this, A. Watts 1992, 30; cf. also C.C. Joyner 1998, 407.

#### 4.4.2.3 Decisions

Decisions are binding rules that concern internal (organizational) questions of the States parties. As far as tourism is concerned, this instrument seems viable for all rules on information exchange amongst the States parties.<sup>769</sup>

#### 4.4.3 Non-binding codes of conducts

As the current discussion of the Consultative States shows,<sup>770</sup> it will be difficult to implement all the proposals made therein by consensus. There is also another more informal way forward. This applies especially with regard to the proposals for a modification of the EIA. It would be possible to adopt a non-binding code of conduct on the implementation of the EIA outside of the ATCM-framework. Such a code of conduct, involving broad guidelines concerning the implementation of the EIA, could be adopted by the PPP or by like-minded Consultative States. Furthermore, a group of experts could also be considered for this task. Such a code – and this would have to be clarified *expressis verbis* – is of course no substitute for legal rules. Nevertheless, such a code may – as long as its content is convincing – stimulate the development of legal rules. States could factually orient their behavior to such rules<sup>771</sup> and/or could open international law – *i.e.* the environmental protocol – by means of a referral<sup>772</sup> for such guidelines.

### 4.5 Enhancing legal rules in Germany

The German legislator may also unilaterally modify the domestic legal framework on Antarctic tourism without achieving a consensus among the Consultative States. This is limited, however, by the fundamental rights – as laid out within the German Constitution – of Antarctic tourists, tourism companies, and scientists, as well as by international obligations; the latter also are important for internal German law due to the constitutional requirement of *Völkerrechtsfreundlichkeit*, *i.e.* an imperative of the German Constitution of openness with regard to the international legal order.<sup>773</sup> Additionally, the factual limit of effectiveness concerning all domestic rules for transnational concerns should be borne in mind. Tourism operators could try to avoid strict domestic rules by shifting their activities into an environment with less restrictive regulation.<sup>774</sup> An unilateral over-regulation of Antarctic tourism within Germany could lead to attempts to circumvent such rules by ‘forum shopping’ at other competent national authorities or modifying the nationality of tourism-operators.

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<sup>769</sup> Cf. as to this 4.2.2.1.

<sup>770</sup> Cf. 4.1.

<sup>771</sup> This the case for the law of aerial warfare, which up until today orientates on the Rules of Air Warfare adopted by the Commission of Jurists; cf. as to this Y. Dinstein 2012, para. 5; this also applies to recommendations that have been developed by the CIOMS, see above; cf. note 699.

<sup>772</sup> By the means of referrals legal norms may include extra-legal standards into formal law; cf. e.g. the inclusion of the Helsinki Declaration of the WMA into the norms of the German *Länder*; cf. note 680.

<sup>773</sup> As to the unconstitutionality of the so-called treaty override, *i.e.* the conscious deviation from international treaties by the parliament, see S. Vöneky 2013a, para. 33.

<sup>774</sup> This is not always possible – legally and economically, e.g. if the displacement of economic activities leads to high costs, furthermore a State may still retain the possibility of a legal entity as long as this entity has the nationality of that State; cf. as to this S. Vöneky 2014, 63, 75.

### 4.5.1 Proposals

In order to enhance the regulation of Antarctic tourism on a national level, it is possible for Germany to adapt its permitting procedure to that of other States parties. The scope of application of the German AUG could be expanded. Until now, this scope only applies locally to such activities that proceed from the German territory or are planned therein. Other States parties do accord a wider scope of application to their national authorization or notification procedures by relying on the obligation of notification of national expeditions contained within Art. VII(5)(a) AT.<sup>775</sup>

This includes not only those activities that are planned within a respective States party's territory but extends to all activities of a State's nationals, vessels and aircrafts. Thus, it would be possible to extend the scope of application of the AUG to all German nationals/legal entities, vessels flying a German flag, and aircrafts registered in Germany.

This extension factually only has a minor effect as long as the Federal Environment Agency does not know about activities occurring abroad. Therefore, it seems reasonable to obligate all individuals and legal entities falling under the scope of application of the statute to notify their activities to the Federal Environment Agency. This is the case *e.g.* in Japan. The Federal Environment Agency could check on the basis of the information submitted whether these activities are in accordance with the AUG.<sup>776</sup>

Furthermore, it is to be recommended to resolve the uncertainties regarding the recognition of foreign authorizations/notifications contained in § 3(2) No. 1 AUG. According to our view, the Federal Environment Agency is required not to assess activities in accordance with the AUG, as far as any notification/authorization procedure has been carried out.<sup>777</sup> It would be possible, however, to introduce a possibility for the Federal Environment Agency for evaluating foreign authorizations – as it is the case in New Zealand.<sup>778</sup> The Federal Environment Agency could be provided with a margin of discretion to reject foreign authorizations/notifications, as long as they are not carried out equivalent to the AUG.

Furthermore, it is to be recommended that the penal sanctions on violations of the AUG are intensified. Currently, only the professional or regular conduct (*gewerbs- oder gewohnheitsmäßig*) of activities within Antarctica without a permit is penalized. Other States already penalize the conduct of such an activity *per se* without adding any further requirements.<sup>779</sup> In conjunction with the recommended widening of the requirement of authorization (on all German nationals, legal entities, ships flying a German flag, and aircrafts registered within Germany), this could have a discouraging effect.

The practical impact of this proposal might be exemplified with regard to the case of the *SV Infinity*. In February 2014, the *SV Infinity*, a vessel flying a German flag, was within the Ross Sea without having any notification/authorization; on this occurrence, ASPA No. 159 was entered without a permit. The captain and a crew-member were German nationals, whereas the rest of the crew consisted of nationals of other Parties to the Antarctic Treaty.<sup>780</sup> The vessel – as well as its crew –, however, does not fall within the scope of application of the AUG, since the journey of the yacht was not organized within Germany. Even

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<sup>775</sup> This applies to the United States; 3.6.1.9 or the United Kingdom; cf. 3.6.1.8.

<sup>776</sup> Cf. 3.6.1.5.

<sup>777</sup> Cf. ATCM XXXVII (2014), IP 48.

<sup>778</sup> Cf. 3.6.1.6.

<sup>779</sup> This is *e.g.* the case for the United Kingdom 3.6.1.8.

<sup>780</sup> Cf. for this ATCM XXXVII (2014), IP 48.

if the applicability could be approved, the participants would merely have committed an administrative offence.

Conversely, the widening of the scope of the AUG on all German vessels and an introduction of a criminal offence of conducting a tourist activity within Antarctica without having received a national authorization/notification would have the practical effect that the entire crew would be subject to a penal sanction. Thus, the following recommendations are made in order to restrict and regulate Antarctic tourism:<sup>781</sup>

- The extension in scope of the applicability of the AUG to include all German nationals, vessels flying the German flag, as well as aircrafts registered in Germany.
- A requirement of authorization for all persons subjected to the AUG involving all Antarctic activities *vis à vis* the Federal Environment Agency.
- The restriction of the scope of the exemption from the German requirement of authorization on such activities that have been authorized by a foreign State party whose procedure largely conforms to the AUG.
- The penalization of an Antarctic voyage without a notification/authorization.
- The insertion of an administrative offence in case that provisos (*Auflagen*) of a permit have been violated.

## 4.5.2 Implementation

A modification of the AUG requires the adoption of a federal statute. This falls within the competency of the federal level in accordance with Art. 70(1), 71, and 73(1) No. 1 of the German Constitution.<sup>782</sup> The formal constitutional requirements concerning the adoption of a federal statute would have to be respected.

## 4.5.3 Limitations

### 4.5.3.1 Limitations imposed by the contemporary international legal framework

All the aforementioned proposals for the modifications of the German AUG are in accordance with international law. In particular, the extension of penalization is legal according to international law, since it extends jurisdiction in accordance with the personality and flag-State principle.<sup>783</sup>

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<sup>781</sup> This exempts scientists, scientific organizations, and research activities

<sup>782</sup> U. Smeddinck 2006, 343.

<sup>783</sup> It would also be possible – in accordance with the German position of a non-claimant State – to extend jurisdiction beyond the personality principle; it could be argued that for the Antarctic Treaty area no international rule allowing for the exercise of extra-territorial jurisdiction is required, since this area does not fall under the territorial sovereignty of any State; cf. 4.3.2.3; as to the flag-state principle F. Jeßberger 2011, 234 et seq.; as to the personality-principle, *ibid*, 240 et seq.

#### 4.5.3.2 Limitations imposed by fundamental rights of tourism operators and tourists

The aforementioned proposals are in conformity with the German constitution: They are constitutional with regard to the restriction of the fundamental rights of tourists as well as operators<sup>784, 785</sup>. It should be highlighted that these rules do not relate to scientists and scientific organizations which excludes any conflict with Art. 5(3) of the German Constitution, guaranteeing the freedom of scientific research.

The general freedom of action (Art. 2(1) German Constitution) guarantees the right to organize and conduct an Antarctic activity. However, a violation of this basic right by extending the scope of authorizations for tourist activities within Antarctica has to be denied.<sup>786</sup> Extending the scope of authorizations would seem proportionate since a restriction of activities within Antarctica for the sake of environmental protection would seem appropriate.

The extension of the scope of authorization would also involve the collection of data of participants and organizers of tourist activities in Antarctica. This does not represent a violation of the right to data protection grounded within the general right of privacy as laid out by Art. 2(1) of the German Constitution as long as the information collected during the authorization procedure is subjected to clarification-, information- and deletion-requirements.<sup>787</sup>

The proposed rules are constitutional with regard to the freedom of profession guaranteed by Art. 12(1) of the German Constitution regarding tourism operator.<sup>788</sup> This freedom is restricted by a requirement of authorization. This restriction is to be seen as constitutional, however, as soon as it may be justified by legitimate aim; this is true for the protection of the Antarctic environment which constitutes a legitimate aim (cf. Art. 20(a) of the German Constitution protecting the natural foundations of life and animals).<sup>789</sup>

Problems persist, however, with regard to the constitutionality of penal provisions for tourist activities within Antarctica that have not been permitted. It is questionable whether such penal provisions would be in accordance with the requirement of clarity (*Bestimmtheitsgrundsatz*) that is grounded within the rule of law (*Rechtsstaatsprinzip*). If the Federal Environment Agency could deny *ex post* the exemption of an activity from the scope of application of a German permit, a criminal liability of the action would have to be approved. This would lead to the unconvincing result that at the time of the action – *i.e.* during the Antarctic voyage that has occurred with the authorization/notification of another State that pos-

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<sup>784</sup> This does not mean that the same is true, if scientists or scientific organization would be covered by these rules as their activities are under the special protection of the freedom of scientific research guaranteed by Art. 5(3) of the German Constitution.

<sup>785</sup> German tourist operators – as legal entities – are also entitled to the protection of fundamental rights insofar as their economic activities are carried out within Germany; cf. B. Pieroth/B. Schlink/T.Kingreen/R. Poscher 2013, para. 163 with further references.

<sup>786</sup> Art. 11 of the German Constitution only protects the right to move freely within the German territory and thus does apply within the German borders. Therefore, it is neither *ratione materiae* nor *ratione loci* applicable to tourist activities within Antarctica.

<sup>787</sup> Cf. U. Di Fabio 2014, Art. 2 MN. 178 with further activities. Something similar applies to a mere requirement of information. This would also have to be in accordance with the right to data protection. The abovementioned requirements would have to be complied with here, too.

<sup>788</sup> Cf. only B. Pieroth/B. Schlink/T.Kingreen/R. Poscher 2013, paras. 874 et seq.

<sup>789</sup> As to this cf. Scholz 2014, Art. 20(a), MN. 36: "Insgesamt und grundsätzlich geht es um die Gesamtheit der Ökosysteme [...]".

sibly is not in accordance with the AUG –, there would remain ambiguity whether a crime has been committed. In other words, in this type of situation the criminal liability would solely depend upon the discretion of the AUG as to whether the foreign authorization/notification has been issued in accordance with the AUG. This would violate the constitutional principle of clarity, which entails that during the time of the action, the potential perpetrator must have clarity with regard to its own criminal liability.

This problem could be resolved, however, if the criminal liability would be separated from the exemption of authorization under German law: Only those persons and tourism operators commit a criminal offence that fall within the scope of application of the AUG and carry out an activity within Antarctica, without having *any* authorization/notification of a State party to the Environmental Protocol. As soon as the individual has such a notification/authorization, this will always exempt him or her from criminal liability, (even if this does not mean that there is no requirement of authorization).

These proposals have the advantage that they cannot be circumvented by relocating the activities concerned abroad.



## 5 Conclusion – overview of regulation and management solutions at a national and international level

The following steps forward to enhance the legal rules in Germany in order to regulate and limit Antarctic tourism are proposed:<sup>790</sup>

- The extension in scope of the applicability of the AUG to include all German nationals, vessels flying the German flag as well as aircrafts registered in Germany.
- A requirement of notification for all persons subjected to the AUG involving all Antarctic activities *vis à vis* the Federal Environment Agency.
- The restriction of the scope of the exemption from the German requirement of permission on such activities that have been authorized by a foreign State party whose procedure largely is equivalent with the AUG.
- The penalization of an Antarctic voyage without a permit/notification/authorization.

Besides, the following proposals on the regulation and the management of Antarctic tourism on an international level are brought forward. These proposals may be implemented by the following means:

Proposals	Implementation
<i>Proposal 1 – Enhanced Tourism Management by upgrading IAATO</i> Monopoly for tourist activities for IAATO-members	“Recommendatory” Resolution Measure Modification of the Environmental Protocol or adoption of a new Tourism Annex
<i>Proposal 1 – Enhanced Tourism Management by upgrading IAATO</i> Incorporation of IAATO-tourism management into the Antarctic Treaty system	Measure Modification of the Environmental Protocol or adoption of a new Tourism Annex (Additionally, a contractual agreement of the Consultative States with IAATO and a modification of the IAATO-Bylaws is required)
<i>Proposal 2 – Enhanced Tourism Management by the Consultative States</i> Upgrade of the Secretariat of the Antarctic Treaty	Measure Modification of the Environmental Protocol or adoption of a new Tourism Annex
<i>Proposal 2 – Enhanced Tourism Management by the Consultative States</i> Amelioration of the EIES	Decision Modification of the Environmental Protocol or adoption of a new Tourism Annex
<i>Proposal 2 – Enhanced Tourism Management by the Consultative States</i> Deployment of observers	Inspections according to Art. VIII AT Measures Modification of the Environmental Protocol or adoption of a new Tourism Annex
<i>Proposal 2 – Enhanced Tourism Management by the Consultative States</i> Introduction of a tourist fee	Measure Modification of the Environmental Protocol or adoption of a new Tourism Annex
<i>Proposal 3 – Enhanced Tourism Management by a Public-Private Partnership (PPP)</i> Creation of a new PPP for a better tourism management	“Recommendatory” Resolution Measure Modification of the Environmental Protocol or adoption of a new Tourism Annex (Additionally, the creation of a PPP requires a statute in accordance with the law of the host State)

<sup>790</sup> This exempts scientists, scientific organizations, and research activities.

<i>Amelioration of the EIA</i> Harmonization of national procedures	"Recommendatory" Resolution Measure Modification of the Environmental Protocol or adoption of a new Tourism Annex
<i>Amelioration of the EIA</i> Identification of tourist activities with more than a minor or transitory impact	"Authoritative" Resolution concretizing the Environmental Protocol Measure Modification of the Environmental Protocol or adoption of a new Tourism Annex
<i>Amelioration of the EIA</i> Inclusion of cumulative environmental impacts	"Authoritative" Resolution concretizing the Environmental Protocol Measure Modification of the Environmental Protocol or adoption of a new Tourism Annex
<i>Restriction of Tourist Activities</i> Prohibitions	"Authoritative" Resolution to concretize the Environmental Protocol Measure Modification of the Environmental Protocol or adoption of a new Tourism Annex
<i>Restriction of Tourist Activities</i> Regulation of adventure tourism	"Recommendatory" Resolution (Site Guidelines) Measure Modification of the Environmental Protocol or adoption of a new Tourism Annex
<i>Restriction of Tourist Activities</i> Limitation of the numbers of tourists	"Recommendatory" Resolution (Site Guidelines) Measure Modification of the Environmental Protocol or adoption of a new Tourism Annex
<i>Restriction of Tourist Activities</i> Limitation of areas for tourist activities	"Recommendatory" Resolution Measure Enlargement of ASPAS excluding tourist activities Exclusion of tourist activities within the entire Antarctic Treaty area with the sole exception of "Areas of Special Interest" Modification of the Environmental Protocol or adoption of a new Tourism Annex
<i>Countering Non-Compliance</i> Preventive: Port State control	Memorandum of Understanding of States adjacent to the Antarctic Treaty area
<i>Countering Non-Compliance</i> Repressive: Penal sanctions	"Recommendatory" Resolution Measure Modification of the Environmental Protocol or adoption of a new Tourism Annex

## 6 Annex I: Overview of the treaty-based obligations of the States parties to the Antarctic Treaty

### 6.1 Consultative States

State	AT	Environmental Protocol	CCAS	CCAMLR	MARPOL <sup>791</sup>	SOLAS
1. Argentina	X	X	X	X	X	X
2. Australia	X	X	X	X	X	X
3. Belgium	X	X	X	X	X	X
4. Brazil	X	X	X	X	X	X
5. Bulgaria	X	X		X	X	X
6. Chile	X	X	X	X	X	X
7. China	X	X		X	X	X
8. Czech Republic	X	X			X	X
9. Ecuador	X	X			X	X
10. Finland	X	X		X	X	X
11. France	X	X	X	X	X	X
12. Germany	X	X	X	X	X	X
13. India	X	X		X	X	X
14. Italy	X	X	X	X	X	X
15. Japan	X	X	X	X	X	X
16. Korea (ROK)	X	X		X	X	X
17. Netherlands	X	X		X	X	X
18. New Zealand	X	X		X	X	X
19. Norway	X	X	X	X	X	X
20. Peru	X	X		X	X	X
21. Poland	X	X	X	X	X	X
22. Russian Federation	X	X	X	X	X	X
23. South Africa	X	X	X	X	X	X
24. Spain	X	X		X	X	X
25. Sweden	X	X		X	X	X
26. Ukraine	X	X		X	X	X
27. United Kingdom	X	X	X	X	X	X
28. United States	X	X	X	X	X	X
29. Uruguay	X	X		X	X	X

<sup>791</sup> All States Parties to MARPOL similarly ratified the optional Annex V to MARPOL.

## 6.2 Non-Consultative States

State	AT	Environmental Protocol	CCAS	CCAMLR	MARPOL	SOLAS
1. Austria	X				X	X
2. Belarus	X	X			X	X
3. Canada	X	X	X	X	X	X
4. Columbia	X				X	X
5. Cuba	X				X	X
6. Denmark	X				X	X
7. Estonia	X				X	X
8. Greece	X	X		X	X	X
9. Guatemala	X				X	X
10. Hungary	X				X	X
11. Kazakhstan	X					
12. Korea (DPRK)	X					
13. Malaysia	X				X	X
14. Monaco	X	X			X	X
15. Pakistan	X	X		X	X	X
16. Papua New Guinea	X				X	X
17. Portugal	X	X			X	X
18. Rumania	X	X			X	X
19. Slovak Republic	X				X	X
20. Switzerland	X				X	X
21. Turkey	X				X	X
22. Venezuela	X	X			X	X

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## **8.4 Antarctic Treaty Meeting of Experts-Documents**

ATME (2004), Chairman's Report from Antarctic Treaty Meeting of Experts on Tourism and Non-Governmental Activities in Antarctica

ATME (2004), Report from Antarctic Treaty Meeting of Experts on Tourism and Non-Governmental Activities in Antarctica

ATME (2004), WP 4, "Tourism and Self-Regulation: A Commentary on IAATO"

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ATME (2007), WP 7, "A Proposal to Enhance Port State Control for Tourist Vessels Departing to Antarctica"

ATME (2009), Chairman's Report Antarctic Treaty Meeting of Experts on the Management of Ship-Borne Tourism in the Antarctic Treaty Area

## 9 Annex II: Overviews

### 9.1 Indications for cases of non-compliance<sup>792</sup>

Category	Violated Rule	Year	Source	Description	Legal Consequences
Protection of Fauna & Flora	5-m-minimum-distance (Annex Resolution 3 (2011) General Guidelines for visitors).	–	<a href="http://upload.wikimedia.org/wikipedia/commons/2/2a/AntarcticaSummer.jpg">http://upload.wikimedia.org/wikipedia/commons/2/2a/AntarcticaSummer.jpg</a>		
		–	<a href="http://www.wimp.com/sealcuddle/">http://www.wimp.com/sealcuddle/</a>		
		–	<a href="http://nmnh.typepad.com/.a/6a01156e4c2c3d970c015436f57790970c-350wi">http://nmnh.typepad.com/.a/6a01156e4c2c3d970c015436f57790970c-350wi</a>		
		–	<a href="http://upload.wikimedia.org/wikipedia/commons/2/2d/Aptenodytes_forsteri_-Snow_Hill_Island,_Antarctica_-_juvenile_with_people-8.jpg">http://upload.wikimedia.org/wikipedia/commons/2/2d/Aptenodytes_forsteri_-Snow_Hill_Island,_Antarctica_-_juvenile_with_people-8.jpg</a>		
		–	<a href="http://www.aqua-firma.co.uk/experiences/Polar_Expeditions/Antarctica/Penguin_Explorer_Antarctic_Peninsula_expedition_cruise_wild-life_photography_voyages_penguin_Antarctica_birdwatching_expert_rspb_holiday">http://www.aqua-firma.co.uk/experiences/Polar_Expeditions/Antarctica/Penguin_Explorer_Antarctic_Peninsula_expedition_cruise_wild-life_photography_voyages_penguin_Antarctica_birdwatching_expert_rspb_holiday</a>		
Protection of Fauna & Flora	Prohibition of introducing non-native species (Plants and Animals) to the Antarctic Treaty area (Annex Resolution 3 (2011) General Guidelines for visitors).	2011/2012	IAATO Field Operations Manual (FOM), 2013/2014 Chapter 6h	A religious group dispensed barley grain on Deception Island. Despite all efforts, some grains may have remained.	

<sup>792</sup> All websites were last accessed in October 2014.

Category	Violated Rule	Year	Source	Description	Legal Consequences
Historic sites and monuments	It is prohibited to deface or vandalize any historic site, monument, or artefact (Annex Resolution 3 (2011) General Guidelines for visitors).	2010	ATCM XXXIII (2010), WP 25, „Report of an incident at Wordie House (HSM No. 62)“	Two men entered into Wordie House without a permit.	The perpetrator was convicted by the Tribunal de Grande Instance de Paris to pay a 10.000€ fine; see ATCM XXXVII (2014) IP 16, „Judgment of the Regional Court of Paris dated 6 February 2014 regarding the carrying out of undeclared and unauthorized non-governmental activities in the area of the Treaty and the Damage caused to the Wordie House Hut (HSM no 62).“
Respect scientific research	It is prohibited to interfere with or remove scientific equipment or markers, (Annex Resolution 3 (2011) General Guidelines for visitors).	2004	Inspection in accordance with Art. VII AT of the United Kingdom, Australia & Peru, 2005, 76, available at: <a href="http://ats.aq/documents/ATCM28/att/ATCM28_att270_e.pdf">http://ats.aq/documents/ATCM28/att/ATCM28_att270_e.pdf</a>	At the Garbiel de Castillo Station (Spain) a field tent was opened and not properly closed which led to a destruction of equipment that had been stored therein.	
	It is prohibited to interfere with or remove scientific equipment or markers, (Annex Resolution 3 (2011) General Guidelines for visitors).	2005	Inspection in accordance with Art. VII AT of the United Kingdom, Australia & Peru, 2005, 76, available at: <a href="http://ats.aq/documents/ATCM28/att/ATCM28_att270_e.pdf">http://ats.aq/documents/ATCM28/att/ATCM28_att270_e.pdf</a>	At the Garbiel de Castillo Station (Spain) a sun-sail was stolen which resulted in a loss of scientific data.	
Violation of the EIA	The domestic-EIA implementation procedure was not followed (Violation of Art. 8; Annex I Environmental Protocol).	2010	ATCM XXXIII (2010), WP 25, „Report of an incident at Wordie House (HSM No. 62)“ ATCM XXXVII (2014) IP 16, „Judgment of the Regional Court of Paris dated 6 February 2014 regarding the carrying out of undeclared and unauthorized non-governmental activities in the area of the Treaty and the Damage caused to the Wordie House Hut (HSM no 62)“	The French Yacht L'ésprit d'équipe travelled to Antarctica without having completed a procedure in accordance with the French Code de l'environnement.	On perpetrator was convicted by the Tribunal de Grande Instance to pay a fine of 10. 000 €.

Category	Violated Rule	Year	Source	Description	Legal Consequences
		2011	ATCM XXXIV (2011), IP 18 „The Berserk Incident, Ross Sea, February 2011“ ATCM XXIV (2011), IP 74 “The legal aspects of the Berserk Expedition” ATCM XXV (2012), IP 81 “The Nilaya/Berserk Expedition”	The Berserk, a Yacht flying a Norwegian flag, had travelled under the direction of Yesrle Andhoy into the Antarctic Treaty area from New Zealand. No EIA had been conducted – neither under Norwegian law, nor under New Zealand law. Initially, it had been planned to land at the Ross Sea and travel with an amphibian vehicle to the South Pole. In February 2011, Berserk reached the Ross Sea. Three crew members remained on board. They sent a SOS-signal on 22./23 February 2011. The Berserk disappeared and could not be found; three men remained on board.	In November 2011, the police of Troms ordered the payment of a fine of 25.000 NOK; the investigation was closed.
		2012	ATCM XXV (2012), IP 81 “The Nilaya/Beserk Expedition”	Yesrle Andhoy used the Nilaya, a yacht flying a Russian flag, to once more travel to Antarctica in order to search for the Berserk. He did neither have an authorization of Russia (flag State of Nilaya) nor of Norway. He arrived in the Antarctic Treaty area in early 2012.	Judgment of the District Court of 23 June 2014: Andhoy was convicted to pay a fine of 25.000 NOK. Andhoy appealed against the judgment.
		--	ATCM XXVI (2013), Final Report, para. 232	A base jumping expedition had been carried out without prior EIA.	
		2014	XXVII ATCM (2014), „The SV Infinity, Ross Sea February 2014“	The SV Infinity, a yacht flying a German flag, travelled from New Zealand into the Antarctic Treaty area (Ross Sea). No EIA had been carried out.	
		2013	France XXVI ATCM Brussels para. 232 (p. 63)	Base Jumping without Permit	
Violation of an ASPA Management Plan	Violation of Art. 7 Annex V Environmental Protocol	since 2009	Aktuelle Umweltsituation und Vorschläge zum Management der Fildes Peninsula Region, Umweltbundesamt 2013, 96	Scientists visited ASPA No. 150 in their free-time and did not remain within the visitor zone.	



## 9.2 Accidents and incidents within the Antarctic Treaty Area in connection with tourism

Date	Location	Description of accident/incident	Source
14.02.1967	Ship Lapataia (Lindblad Travel)	26 tourists stranded on Half Moon Island.	D. Liggett et al.; Tourism Management 32 (2011); 357-366; 359
01.01.1968	Ship Navarino (Lindblad Travel)	Steering engine failed.	D. Ligett et al; 359
22.01.1968	Ship Magga Dan (Lindblad Travel)	Ship ran aground.	D. Ligett; 359
22.01.1969	Ship Aquiles (Lindblad Travel)	70 tourists stranded near Palmer Station.	D. Ligett; 359
23.01.1970	Aircraft Piper Aztec Twin Engine	Plane crash during take-off; pilot survived.	D. Ligett; 359
24.12.1971	Ship Lindblad Explorer (Lindblad Travel)	Ship grounded at Gerlach Strait, Tourists were saved by Chilean navy.	D. Ligett; 359
11.02.1972	Schip Lindblad Explorer (Lindblad Travel)	Ship grounded on King George Island	D. Ligett; 359
29.11.1972	Yacht Ice Bird	Capsize of Yacht	D. Ligett; 359
28.11.1979	Aircraft Air New Zealand Flight 901	Plane crash, no survivors among 247 passenger and crew.	<a href="http://www.southpolestation.com/trivia/history/te901.html">http://www.southpolestation.com/trivia/history/te901.html</a>
24.12.1979	Ship Lindblad Explorer (Lindblad Travel)	Grounded off Wiencke Island.	D. Ligett; 359
31.12.1985	Aircraft Chilean tourist over-flight	Crashed on King George Island; all board members were killed.	D. Ligett; 359
10.01.1986	Ship Southern Quest	Caught within pack ice; 21 people were rescued by a helicopter.	D. Ligett; 359
28.01.1989	Ship Bahia Paraiso	Sank in the vicinity of Anvers-Island; oil-spill of 600.000 l of heavy fuel.	New Zealand, Environmental Aspects and Impacts of Tourism and Non-governmental Activities in Antarctica, ATCM XXXV 2012, 39.
01.02.1991	Ship Promaire	Sank in Jonessund.	D. Ligett; 359
26.11.1993	Aircraft Allcair Flight DC.6B	Crashed, eight people were saved.	D. Ligett; 359
24.01.1996	Ship Professor Multanovskiy	Vessel grounded off Pinguine Island.	D. Ligett; 359
04.01.1997	Ship Professor Khromov	Vessel Grounded in Neumayer Channel.	D. Ligett; 359
18.01.1997	Ship Akademik Sergei Vivilov	Oil spill	D. Ligett; 359
Feb 98	Parashoot-Accident	Three people died.	<a href="http://www.outsideonline.com/outdoor-adventure/Three-skydivers-die-in-Antarctica--leaving-the-world-to-ask---Why--.html">http://www.outsideonline.com/outdoor-adventure/Three-skydivers-die-in-Antarctica--leaving-the-world-to-ask---Why--.html</a>
03.02.1999	Ship Hanseatic	Starboard propeller damaged.	D. Ligett; 359
31.12.1999	Ship Clipper Adventure	Propeller damaged.	D. Ligett; 359
01.02.2000	Ship Clipper Adventure	Enclosed by pack-ice.	D. Ligett; 359
01.02.2000	Ship Akademik Sergei Vivilov	Crash with humpback whale; whale was injured.	D. Ligett; 359
28.01.2001	Ship Vista Mar	Propeller damaged; spill of heavy fuel.	D. Ligett; 359

Date	Location	Description of accident/incident	Source
18.02.2002	Ship Professor Molchanov	Vessel damaged by crash with iceberg.	D. Ligett; 359
Okt 2002	Aircraft Flight Basler 67	Damage to aircraft while on runway.	D. Ligett; 359
17.11.2002	Ship Explorer	Failure of generator caused problems.	D. Ligett; 359
22.11.2002	Ship Clipper Adventure	Wind blew vessel on sandbank.	D. Ligett; 359
13.02.2003	Ship Marco Polo	Vessel grounded near Half Moon Island.	D. Ligett; 359
23.11.2007	Ship Explorer	Ship sank; all passengers were saved.	<a href="http://www.nationalgeographic.com/adventure/news/explorer-sinks-antarctica.html">http://www.nationalgeographic.com/adventure/news/explorer-sinks-antarctica.html</a>
2008	Scuba Diving	While Scuba diving, a woman had a heart attack and died.	M. Lamers, Polar Record 48, 280, 282, Diversification of Antarctic tourism: the case of scuba diving expedition.
31.11.2011	Ship Polar Star	Grounding of Polar Star.	ATCM XXXV (2013), IP 59 "Grounding of the Polar Star".
02.04.2012	Yacht Mar Sem Fim	Yacht sank all passengers were saved.	Aktuelle Umweltsituation und Vorschläge zum Management der Fildes Peninsula Region, Umweltbundesamt, 2013, 82; ATCM XXXV (2012), IP 77; ATCM XXXV (2012), IP 64
24.12.2013	Ship	Caught in pack-ice for several weeks different ships tried to help and were closed in themselves.	<a href="http://www.abc.net.au/news/2014-01-08/ships-freed-from-antarctic-ice/5189760">http://www.abc.net.au/news/2014-01-08/ships-freed-from-antarctic-ice/5189760</a>

### 9.3 Diversification of Antarctic Tourism and other non-governmental Activities (detailed)

Category	Activity	Year	Source	Authorized	Descriptions	Contained within the PVR Form	Contained in ATCM XXXVI WP 47
I. Art and music	Works of art		<a href="http://www.backofthepackracing.com/2011/10/antarctica-just-crazy-stuff.html">www.backofthepackracing.com/2011/10/antarctica-just-crazy-stuff.html</a>		McMurdo Station	Yes	Yes
		2006/2007	<a href="http://www.xaviercortada.com/?page=AntIP_indexChromeHTML\Shell\Open\Command">www.xaviercortada.com/?page=AntIP_indexChromeHTML\Shell\Open\Command</a>	Yes			
	Concerts	2007	<a href="http://en.wikipedia.org/wiki/Live_Earth_concert,_Antarctica">http://en.wikipedia.org/wiki/Live_Earth_concert,_Antarctica</a>	Yes	Rothera Research Station	No	No
		2012	<a href="http://www.youtube.com/watch?v=HhSjlaUSpas">www.youtube.com/watch?v=HhSjlaUSpas</a>		McMurdo Station		
		2013	<a href="https://twitter.com/MetallicaLive">https://twitter.com/MetallicaLive</a>	Yes			
			<a href="https://www.metallica.com/news/history-made-in-antarctica.asp">https://www.metallica.com/news/history-made-in-antarctica.asp</a>				
II. Education	School and university trips	2014	<a href="http://studentsonice.com/antarctic2014/">http://studentsonice.com/antarctic2014/</a>	Yes		Yes	Yes
		2011/2012	<a href="http://www.dgp-ev.de/expeditionen.html">www.dgp-ev.de/expeditionen.html</a>	Yes		Yes	Yes
III. Media coverage and advertising events	Films	2011	EIA Database			Yes	Yes
	Fashion show	2011	<a href="http://www.youtube.com/watch?v=7rrIDv_W0i8">www.youtube.com/watch?v=7rrIDv_W0i8</a>			No	No
	Photo shooting	2013	<a href="http://www.youtube.com/watch?v=IcyNK60jsKc">www.youtube.com/watch?v=IcyNK60jsKc</a>	Yes		Yes	Yes
			<a href="http://i.cdn.turner.com/si/pr/subs/swimsuit/images/13/13_kate-upton_15.jpg">http://i.cdn.turner.com/si/pr/subs/swimsuit/images/13/13_kate-upton_15.jpg</a>		McMurdo Station		
	Promotion of VIPs	2013	<a href="https://twitter.com/search?q=%23naked%20antarctica&amp;src=typd">https://twitter.com/search?q=%23naked%20antarctica&amp;src=typd</a>	Yes		No	Yes
			<a href="http://www.theatlantic.com/international/archive/2014/01/on-getting-naked-in-antarctica/282883/">www.theatlantic.com/international/archive/2014/01/on-getting-naked-in-antarctica/282883/</a>				
			<a href="http://www.nydailynews.com/entertainment/gossip/alexander-skarsgard-poses-nude-spoof-photo-article-1.1569641">www.nydailynews.com/entertainment/gossip/alexander-skarsgard-poses-nude-spoof-photo-article-1.1569641</a>				

IV. Sports activities	Kayaking	Annual	EIA Database	Yes		Yes	Yes
	Scuba diving	Annual	<a href="http://www.aqua-firma.com/experiences/Polar_Expeditions/">www.aqua-firma.com/experiences/Polar_Expeditions/</a>	Yes		Yes	Yes
	Surfing	Annual	<a href="http://www.youtube.com/watch?v=lqJ_KAWvjsk&amp;playnext=1&amp;list=PLF9747F4A7F6505E3&amp;feature=results_video">www.youtube.com/watch?v=lqJ_KAWvjsk&amp;playnext=1&amp;list=PLF9747F4A7F6505E3&amp;feature=results_video</a>	-		Yes	Yes
	Marathons	Annual	<a href="http://www.icemarathon.com/live/208.html">www.icemarathon.com/live/208.html</a>	Yes		Yes	Yes
	Mountain climbing	Annual	<a href="http://www.polarfirst.com/index.php?option=com_content&amp;task=view&amp;id=12&amp;Itemid=26">www.polarfirst.com/index.php?option=com_content&amp;task=view&amp;id=12&amp;Itemid=26</a>	Yes		Yes	Yes
	Base-jumping	Annual	<a href="http://www.youtube.com/watch?v=Kz62_t_j8Zs">www.youtube.com/watch?v=Kz62_t_j8Zs</a>	Yes		Yes	Yes
	Skydiving	Annual	<a href="http://www.youtube.com/watch?v=vqxT0x7kaHQ">www.youtube.com/watch?v=vqxT0x7kaHQ</a>	-		Yes	Yes
	Paragliding	Annual	<a href="http://www.youtube.com/watch?v=vqxT0x7kaHQ">www.youtube.com/watch?v=vqxT0x7kaHQ</a>	Yes		Yes	Yes
	Skiing and snowboard-ing	Annual	<a href="http://www.antarcticskiodysey.com/">www.antarcticskiodysey.com/</a>	Yes		Yes	Yes
	Long-distance swim-ming	2006/2007	<a href="http://www.youtube.com/watch?v=M0kogs4KEso">www.youtube.com/watch?v=M0kogs4KEso</a>	-		Yes	Yes
	Bicycle tours	2012/2013	<a href="http://www.bbc.co.uk/cbbc/diaries/helen-skeltons-polar-challenge-for-sport-relief">www.bbc.co.uk/cbbc/diaries/helen-skeltons-polar-challenge-for-sport-relief</a>	-		No	Yes
		2013	<a href="http://www.whiteicecycle.com/">www.whiteicecycle.com/</a>	Yes		No	Yes
	Triathlons	2013	<a href="http://www.icemarathon.com/site/news/31.html">www.icemarathon.com/site/news/31.html</a>	Yes		Yes	Yes
	Cricket	2013	<a href="http://www.youtube.com/watch?v=d5I9RII9SME">www.youtube.com/watch?v=d5I9RII9SME</a>		Union Glacier camp	No	No
	Tricycle-Expeditions	2013	<a href="http://gizmodo.com/this-tricycle-is-headed-across-the-south-pole-1488296023">http://gizmodo.com/this-tricycle-is-headed-across-the-south-pole-1488296023</a>			No	No
	Football/soccer		<a href="http://inbedwithmaradona.com/journal/2013/2/24/global-united-football-in-antarctica-and-lutz-pfannenstiel">http://inbedwithmaradona.com/journal/2013/2/24/global-united-football-in-antarctica-and-lutz-pfannenstiel</a>	Planned for 2014		No	No
	Snorkeling	Annual	<a href="http://www.auroraexpeditions.com.au/news/aurora-announces-snorkelling-in-antarctica">www.auroraexpeditions.com.au/news/aurora-announces-snorkelling-in-antarctica</a>			No	Yes
	Snowhiking	Annual	ATCM WP 47			No	Yes
	Sledding	Annual	ATCM WP 47			No	Yes
	Swimming	Annual	ATCM WP 47			No	Yes
	Use of motorized ve-hicles (motorcycles, trucks etc.),	Annual	ATCM WP 47			Yes	Yes

	Stand Up Paddling		<a href="http://www.polaradventures.de/AA-OCEANENDEAVOUR.html">www.polaradventures.de/AA-OCEANENDEAVOUR.html</a>	Planned for 2015		No	No
<b>V. Other activities</b>	Camping	Annual	<a href="http://www.hurtigruten.us/utis/news-on-front-page/sleeping-under-the-summer-sky-in-antarctica--well-how-about-in-a-test-hurtigruten-adds-overnight-camping-option-to-its-antarctica-sailings/">www.hurtigruten.us/utis/news-on-front-page/sleeping-under-the-summer-sky-in-antarctica--well-how-about-in-a-test-hurtigruten-adds-overnight-camping-option-to-its-antarctica-sailings/</a>	Yes		Yes	Yes
	Helicopter flights	Annual	<a href="http://www.polarfirst.com/">www.polarfirst.com/</a>	Yes		No	Yes
	Overflights	Annual	EIA Database	Yes		No	Yes
	Geocatching	2002	<a href="http://www.passcal.nmt.edu/~bob/passcal/antarctica/ant25.htm">www.passcal.nmt.edu/~bob/passcal/antarctica/ant25.htm</a>			No	No
	Google Street View	2012	<a href="http://www.outsideonline.com/blog/outdoor-adventure/tour-antarctica-using-google-street-view.html">www.outsideonline.com/blog/outdoor-adventure/tour-antarctica-using-google-street-view.html</a>			No	No
	Drone flights		<a href="http://www.gizmodo.de/2014/02/04/die-antarktis-aus-der-drohnenperspektive-video.html">www.gizmodo.de/2014/02/04/die-antarktis-aus-der-drohnenperspektive-video.html</a>			No	No
	Sales of souvenirs		ATCM XXXVI WP 37			No	Yes
	Religious activities		ATCM XXXVI WP 37			Yes	Yes

