The Longest Journey in the World: An Investigation into the Liability Annex and its Evolution

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Tourist cruise vessel M/S *Explorer*
sinking off King George Island

Contents:

1. Introduction

Human-induced harm to the Antarctic environment is not only likely, it is inevitable. This harm might be the incidental effect of activities, such as maintaining a base and conducting scientific research, or it could be the result of some form of accident. While Antarctica is considered among the most beautiful places on earth, it is also unpredictable and dangerous. The terrain and weather are particularly unpredictable, increasing the likelihood that accidents will occur. There have been several well publicised accidents involving ships in Antarctica. These include the grounding of the *Bahia Paraiso* in 1989 and more recently, the sinking of the M/S Explorer in 2007, spilling 600,000 litres of oil and 185,000 litres of diesel into the environment respectively.[1][2] Paradoxically, Antarctica is as vulnerable as it is powerful. The Antarctic environmental is well known to be slow in recovering from disruption and as tourist levels swell, the number and extent of these disruptions will increase, along with the general risk to the environment.

Continued activity there can only result in harm to this unique place, so it is crucial that responsibility is distributed to pre-empt it by reducing the likelihood of its occurrence and take measures to protect the environment when it does happen. It is this sobering thought that inspired the creation of a liability Annex to the Protocol on Environmental Protection to the Antarctic Treaty. The main obligation established by the Annex is for Parties to ensure their operators take responsibility for harm they cause to the Antarctic Treaty area (south of 60° South Latitude). The Annex was adopted as a legally binding measure at the 28th Antarctic Treaty Consultative Meeting at Stockholm on June 17, 2005 after 13 years of negotiation. It will not come into force until it has been ratified by all 29 Antarctic Treaty consultative Parties[3], at which point it will bind all Parties.[4]

This paper sets out to examine how the Annex has evolved through the negotiation process and what it will achieve when it comes into force. It begins by outlining the Annex in its current form and history and context in which it was developed. It then looks specifically at the substantive issues that needed to be resolved as well as the procedural challenges that slowed the process down, requiring more than a decade of negotiation. It will also discuss the future, in terms of how further guidelines might help in the Annex's practical implementation, as well as the development of additional Annexes.

2. The Annex in its current form

The Annex aims to reduce the likelihood of harm-causing accidents and ensure responsibility is taken for the costs involved in a response action to minimise the effect that any such accident might have on the environment by requiring Parties to adopt laws that impose certain requirements on their operators organising activities in the Antarctic treaty area.

These laws must first require operators to undertake preventative measures and develop contingency plans in order to avoid 'environmental emergencies'. An environmental emergency is defined as an accidental event that "results, or threatens to result, in any significant and harmful impact on the Antarctic environment."[5] Preventative measures include specialised structures, equipment, procedures and training of personnel. The concept of contingency plans is expanded

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[1] Janiot, L. J., Sericano, J. L. and Marcucci, O. 2003. Evidence of oil leakage from the *Bahia Paraiso* wreck in Arthur Harbour, Antarctica. *Marine Pollution Bulletin* 1615-1629, 1615.
[2] Official Report on the M/V Explorer incident – 28 November 2007 (Chilean Ministry of Foreign Affairs).
[3] Bloom, E. T. 2006. Introductory note to Antarctic Treaty Environmental Protocol Liability Annex *International Legal Materials* 45: 1-4, 4.
[4] The Protocol on Environmental Protection to the Antarctic Treaty (1991), art 9(4).
[5] Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty: Liability arising from Environmental Emergencies (2005), art 2(b).

from the description provided in article 15 of the Protocol, providing an outline of what should be included, including notification, training, record keeping and response plans.

Parties are also required to impose the obligation for operators to ensure they have sufficient financial security to cover the maximum levels that they might be held liable for.

Secondly, Parties must adopt laws requiring their operators to take prompt and effective response action when their activities cause an environmental emergency. Response action is defined as 'reasonable measures to avoid, minimise or contain the impact of that environmental emergency, which to that end may include clean-up in appropriate circumstances. What will amount to a 'reasonable' response action will depend on risk s to human safety, the environment, and its rate of recovery, and technological and economic practicalities.

If adequate response action is not taken, the Annex encourages (but does not oblige) the Party of the operator or other Parties to take such action on the operator's behalf. 'Other Parties' may only respond where it is reasonable to do so and must notify the Party of the operator. Liability then attaches to the operator to reimburse (up to certain limits) for the cost of this. Alternatively, if no response action is taken, the value of the response action which should have been taken is payable to 'the Fund' in the form of Special Drawing Rights (SDR).

This is a unique aspect of the Annex, in that it establishes liability "for mere damage to the environment where there is no economic loss or damage".[6] This was one of the triumphs of the Annex, which "proved to be one of the most difficult aspects of the Annex to achieve consensus on."[7] It was designed to prevent an operator from not taking response action in the hope that nobody else would, thus avoiding liability altogether. In terms of reimbursement to Parties that have taken response action on an operator's behalf, they will only receive 'reasonable and justified costs'. This limitation contrasts with article 12 which seems to provide that operators themselves are liable for *all* costs of a response action. This should encourage operators to take their own response action, since this response might be at a lesser (and therefore less costly) standard than that of another Party that might act for them, to whom reimbursement would later be required.

Causing an environmental emergency gives rise to the duty to take prompt and effective response action, but does not in itself result in the attachment of liability *per se*. The event must cause harm which the operator responsible then does not respond to it, does not respond to it promptly or does not respond to it effectively. Responsibility only attaches when the environmental emergency results from activity that required advance notice. Liability is strict, so it attaches irrespective of fault. Liability will attach to an operator if there is failure to take prompt and effective response action regardless of whether they undertook preventative measures or developed contingency plans.[8] It is worth noting that States are not liable for the cost of environmental emergencies of their operators to the extent that the State has implemented all obligations of those operators domestically.

Where harm is caused by two or more operators, each is jointly and severally liable. However, there are a number of exceptions. The first is where the emergency results from an action necessary to protect human life or safety. The second exception to liability would be if the emergency is caused by an unforeseen natural disaster of an exceptional nature in the circumstances of Antarctica. The third is where it is the result of an act of terrorism or belligerency. In order to encourage State Parties to take response action when the operator does not, article 8(2) excludes

[6] Johnson M. 2006. Liability for Environmental Damage in Antarctica: The Adoption of Annex VI to the Antarctic Environment Protocol *The Georgetown International Environmental Law Review* 19: 33-55, 41.
[7] Johnson, above n 6, 41.
[8] Bloom, above n 3, 3.

liability for environmental emergencies that occur in the course of such response action, providing that the action was reasonable and specifically authorised.

The limits to liability are set out in article 9 and for vessels this limit will depend on its tonnage. These limits are reviewed every three years at Antarctic Treaty Consultative Meetings. Actions for reimbursement against non-state operators must be taken within 15 years of the response action being taken.[9] There is no such limit for actions against state operators.

It is interesting to note that it is the *event* that causes or threatens to cause harm that is the focus of the Annex, not the state of the environment itself. Harm or damage is not defined in the current Annex at all. It is about preventing accidents from impacting the environment, looking at how to contain what has infiltrated the environment and ensuring that the operator responsible pays for this. The extent to which the 'reasonable measures' are effective is not relevant to the assessment of whether the obligations have been fulfilled or whether liability will attach.

At the same time that the Annex was signed, a decision (Decision 1, 2005) was also adopted which states that the Parties intend every year to review the progress that has been made to bring the Annex into force and that a decision would be made within 5 years on when further liability negotiations would begin.[10]

The above is only a brief overview of the Annex to provide some background to the analysis of negotiation that follows. In short, the Annex provides incentives for operators to take care in the way they conduct their activities, since they will have to bear the costs of any response action required as a result of an environmental emergency they cause. This is designed to give "teeth" to the environmental protection measures afforded by the Protocol of which it has become a part.

3. History and context

The Antarctic Treaty, which is the basis of the Antarctic legal regime, was adopted in 1959 and entered into force in 1961. This document addressed the sovereignty claims made over sectors of Antarctica and set out to ensure that the continent be used for peaceful purposes only, promoting freedom of scientific investigation and co-operation.[11] It did not specifically set out to protect the environment, but in 1991 the Protocol on Environmental Protection to the Antarctic Treaty (the 'Madrid Protocol') was signed to do so, along with four Annexes (a fifth was signed soon after). Article 16 of the Protocol sets out a commitment for the Parties to "elaborate rules and procedures relating to liability for damage arising from activities taking place in the Antarctic Treaty area and covered by this Protocol…[to] be included in one or more Annexes."

The often overlooked, but equally relevant, article 15 provides an overall outline of the response action obligation which Annex 6 re-affirms, the breach of which attracts liability. Article 15 provides that Parties agree to 'provide for prompt and effective response action to such emergencies which might arise in the performance of [activities] for which advance notice is required.' It also requires Parties to establish contingency plans for response to incidents. 'The Environmental Protocol was adopted as a framework instrument with the ability to add Annexes, and to amend them quickly and simply'.[12] However, as this Annex illustrates, doing so is not necessarily a straight forward procedure.

[9] Annex VI, above n 5, art 7.
[10] Final Report, Agenda Item 8: Liability. ATCM XXVIII (Stockholm, 2005), 7.
[11] The Antarctic Treaty (1959), arts 1 and 2.
[12] Liability ATCM XXIII/WP 21 (Lima, 1999).

The development of the Annex must be interpreted not only in the light of the Antarctic Treaty and Madrid Protocol, but also other applicable international environmental law. The situation in terms of liability in the Antarctic prior to the liability Annex has been for any costs up to be borne by the State(s) willing and able to offer assistance in rescue operations and any clean up, rather than the by operator that caused the accident.[13] There has been no reimbursement for such costs which is inconsistent with international law, at least in terms of accidents involving vessels, which provides that ship-brokers have been pay these costs through insurance or other means.[14] The Annex would bring the Antarctic area more in line with this rule.

While not all Protocol members will necessarily be party to all other relevant international treaties, customary international law is generally applicable to all states. An example of such inclusive laws might include the duty to ensure activities within a state's jurisdiction do not damage other states or area beyond national jurisdiction (a customary international law principle embodied in the Stockholm Declaration (1972)[15] and the Rio declaration (1992).[16] According to the United Nations Convention on the Law of the Sea, states must ensure 'prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by persons under their jurisdiction.'[17] This applies to the Antarctic marine area.[18] Also relevant, but not binding are the International Law Commission's 'Draft Articles on State Responsibility' prohibits 'massive pollution' of the seas.[19]

4. Why did negotiations take so long?

a). Substantive challenges

General

Reaching multilateral agreement on liability rules is an inherently difficult task and was made no easier by the fact that no other international liability models were unable to be used as a framework from which to begin. According to Bloom, other models were not suitable to be transplanted for application to the Antarctic environment,[20] meaning discussions had to produce something quite unique. In addition, the requirement that liability rules need to be consistent with the Madrid Protocol's objectives provided further impediment to an already complicated web of issues.[21]

The complex nature of the task was recognised during the early stages of the negotiations. In 1994, Dr. Wolfrum admitted that he had "not anticipate[d] how difficult it would be to elaborate or even to discuss a new liability regime.[22] The sheer size of considerations to be discussed was daunting and essentially involved asking a number of inter-related questions simultaneously, the answer to each depending on the answers given to all others. Decisions would have to be made about what standard of liability should be imposed, who should be held liable and to whom, which activities and what type and level of damage or harm would attract liability, and whether there should be

[13] Basic Elements for an Annex on the Liability Envisaged by the Antarctic Treaty Protocol (submitted by Chile) XVII ATCM/WP 11, pg 3.
[14] Basic Elements for an Annex on the Liability Envisaged by the Antarctic Treaty Protocol (submitted by Chile) XVII ATCM/WP 11, pg 2.
[15] Principle 21 of the Stockholm Declaration, 1972.
[16] Report of the United Nations Conference on Environment and Development (Rio de Janeiro, 3-4 June 1992), principle 2.
[17] The United Nations Convention on the Law of the Sea (1982), article 235.
[18] Francioni, F (ed). 1992. International Environmental Law for Antarctica. Giuffre Publishing, Milano. 233-257, 241.
[19] Francioni, as above n 18, 241.
[20] Bloom, above n 3, 2.
[21] The Protocol on Environmental Protection, above n 4, art 16.
[22] Liability Annex to the Protocol on Environmental Protection to the Antarctic Treaty (submitted by Germany). XVIII/WP 2 (Kyoto, 1994), 8.

limits and exceptions to this liability. As with most complex subject areas, the further one delves the further there *is* to delve. Increasing numbers of issues were raised and required discussion as negotiations progressed. In 1999, Don McKay explained that as discussions progressed there had been an 'increase in the magnitude and number of issues needing to be negotiated'.[23] Yet the Annex's scope, one of the most fundamental issues, was still very much unresolved after more than 7 years of negotiation. Truly efficient negotiation could not be achieved when the parameters of the Annex were so unclear.

This paper breaks the phases of negotiations into sections. The first outlines some of the initial discussions on how negotiations should proceed and which issues were identified for resolution. The next section gives an overview of the outcomes from the German chaired negotiations, between 1992 and 1998. The third section outlines the New Zealand chaired negotiations from 1999 till 2004. The final part looks at the last year of developments leading to the Annex being adopted in June 2005.

Before beginning, it seems useful to define the term 'liability'. According to the Concise Oxford Dictionary, liability can be defined as responsibility by law or 'a thing for which someone is responsible, especially a financial obligation'. I have proceeded on the basis of liability being financial responsibilities as distinct from other legal obligations (to take a measure or avoiding doing some action).

Phases of negotiation

i). Initial phase

It was recorded in the Final Act of the 11th Antarctic Treaty Special Consultative Meeting in 1991 that the issue of liability had been discussed; recognising the commitment of the Parties under article 16 of the newly adopted Madrid Protocol to develop a liability regime and articulating that it would be preferable for such work begin at an early stage. The record also states that liability for damage to the Antarctic environment should be "included" in this.[24] The wording here is somewhat surprising given that one might expect that liability for such damage would be the main thrust if the Annex was to help implement the Madrid Protocol, which asserts its fundamental consideration is the protection of the Antarctic environmental and ecosystems. However, international liability conventions have tended to impose liability for damage to property or loss of life and not for environmental damage. An example of this would be the Convention on International Liability for Damage caused by Space Objects 1972 which imposes strict liability on launching States.[25]

The final report of the 16th ATCM records that this meeting reiterated the need for "early consideration" of a liability Annex. It states that when and how the matter should be determined would be left for the following ATCM, in Venice.[26] It was there, in 1992 that discussion of substantive issues began.

However, in 1991, one of the first drafts of a liability Annex was submitted in the form of an information paper by ASOC. While ASOC is not Party to the Treaty, it has had considerable influence on the development of a number of international conventions. While the draft might not be representative of the general views of the Consultative Parties, it is useful as a comparison for how the negotiations progressed from this stage onwards. The paper proposed an "Annex on Liability and Compensation for Antarctic *Activities*" [emphasis added], which from the outset

[23] Personal Report of the Chairman of the Liability Discussion in WG1 (submitted by NZ) XXIII ATCM XXIII/WP 41 (Lima, 1999).
[24] Final Act of the 11th Antarctic Treaty Special Consultative Meeting (1991).
[25] Francioni, above n 18, 246.
[26] Final Report of the 16th ATCM (1991).

differs significantly from what was adopted in 2005, entitled "Liability arising from Environmental Emergencies". The latter is much more limited in that it only applies to environmental emergencies, that is, any harm caused during the ordinary course of activities will not attract liability. The proposed Annex was drafted to apply to *all* activities conducted in the Protocol area (rather than limiting it to just those activities requiring advance notice as the current Annex does) and imposed strict liability for 'environmental damage'. The use of the term 'damage' is consistent with the Madrid Protocol, as opposed to 'harm', which was employed by the Annex. The practical difference between these two terms is unclear.

The draft seemed to attach liability directly to state Parties as a result of their activities (consistent with article 15 of Protocol) or those of their nationals. This differs from what was eventually adopted, which imposes liability only on operators, not state parties and not nationals that do not amount to operators. Article 2 of the proposed Annex would have required states to adopt legislation providing for compensation for damage to the Antarctic ecosystem, loss or impairment to an established use of the damaged ecosystem, loss of life or damage to property of a third party, as well as reimbursement of reasonable costs relating to response and restorative actions. The Annex in its current form only imposes liability for reimbursement of response action costs, so its scope has narrowed considerably since this proposal. Interestingly, reimbursement in ASOC's proposal was for *reasonable* costs ASOC (justified as protection against a Party interfering and responding on behalf of an operator for the purpose of seeking compensation),[27] whereas now the reimbursement by the liable party must pay 'for costs',[28] whether or not these are reasonable in the circumstances, up to certain set limits. Whether the limits themselves are reasonable or not is a matter for debate. The other causes of action, such as loss of life, damage to property and impairment to an established use are entirely absent in the current Annex, as is reimbursement for restorative action, which was clearly viewed as distinct from a response action.

The scope of liability would have been broad, covering instances where damage has occurred to the Antarctic ecosystem as well as "such damage [which] might reasonably have occurred but for human intervention". Thus, potential harm to the Antarctic ecosystem could attract liability.

Article 7 outlined that a Committee for Environmental Protection would prepare an independent 'damage assessment' which would consider the cause of damage, which actions should have been taken to prevent, mitigate or remedy the damage, relative to the actions that were actually taken. In addition, it would look at what would be needed to restore the ecosystem and would consider what measure of compensation would be appropriate. The ATCM would then determine the final level of compensation to be paid. Nothing like this exists in the current Annex.

In 1992, at the 17th ATCM, Germany submitted an information paper stating that the goal of liability rules is to "repair damage incurred".[29] This differs from what the current Annex will achieve once in force. The focus of the Annex is more about preventing harmful impacts and curtailing their effect, rather than repairing damage. This can be demonstrated with the language used in article 2, where "response action" is defined as reasonable measures taken to "avoid, minimise or contain the impact of [an] environmental emergency, which to that end *may* include clean-up" [emphasis added]. Far from of being the primary goal, Annex does not explicitly recognise the repair damage as one its aims at all.

The Netherlands' submission to the same ATCM echoed Germany's view on this matter. The working paper states that '…the functions of a Fund could be considered to provide for the

[27] Annex on Liability and Compensation for Antarctic Activities (submitted by ASOC). XVI ATCM/INFO 55 (Bonn, 1991), 5.
[28] Annex VI, above n 5, art 6.
[29] Statement on Basic Elements for an Annex on Liability (submitted by Germany). XVII ATCM/INFO 72 (1992).

additional funds required to restore the ecological integrity'.[30] In contrast, the current Fund seems less concerned with restoration than it does about reimbursing the costs of response action taken, irrespective of what it has achieved in terms of ecological integrity. However, in reimbursing Parties for their efforts to minimise impact, it does encourage them to respond and by doing so this will at least prevent further harm to the extent reasonable.

Legal certainty was another important goal identified by the German information paper.[31] I would argue that what has been achieved in the current Annex does not provide such certainty, since there are myriad lacunas and ambiguities (discussed later in this paper). Nevertheless, the main principles have been agreed to and despite some of the details remaining unclear, the legal situation is undoubtedly more certain than before the Annex was adopted.

The working paper submitted by the Netherlands suggested that liability rules should be developed in such a way as to distinguish between certain types of activities. Specifically, scientific research, 'which is central to operation of the ATS and… of global importance' should be differentiated from those activities of a 'fundamentally different nature', for example tourism. [32] Scientific activities are given priority under the Antarctic Treaty, which specifically acknowledges their validity.[33] However, since the adoption of the Treaty, tourism itself is generally accepted a legitimate use of Antarctica.[34] In any event, the Annex as it currently stands does not divide activities in Antarctica this way. All activities that require 'advance notice' under article 7(5) could give rise to liability. However, exactly which activities require advance notice is not clear. Whaling, fishing and over-flights are among the few activities that have been clearly identified as not requiring notice in advance.

The Netherlands also suggested that an activity's level of potential harm to the environment should bear some influence on the type or extent of liability attaching to it when harm does occur. [35] Shipping accidents have long been considered the greatest risk to the Antarctic environment.[36] However, the paper recognises that international law already governs some activities, such as shipping. The most recently considered of these is the International Convention on Civil Liability for Oil Pollution (1969, amended in 1984) and this was noted as a potential issue in the application of the liability annex.

The Netherlands also suggested that an activity's level of potential harm to the environment should bear some influence on the type or extent of liability attaching to it when harm does occur. A final point of interest is the Netherlands' recognition that the development of a liability regime might be aided using some of the negotiations for the Convention on the Regulation of Antarctic Mineral Resource Activity (CRAMRA).[37]

In conclusion, ideas from consultative Parties at this initial stage in the negotiations were generally vague and many of the important issues had not yet been formally identified. The intentions outlined in the limited documents discussed above tended to be focused on high levels environmental protection. The draft Annex submitted by ASOC in their information paper was

[30] Liability for Damage Arising Activities taking place in the Antarctic treaty Area (Liability Annex). (Submitted by the Netherlands). XVII ATCM/WP 8 (1992).
[31] Statement on Basic Elements, above n 29.
[32] Liability for Damage Arising Activities (Submitted by the Netherlands)., above n 30.
[33] The Antarctic Treaty (1959), preamble.
[34] Francioni, above n 18, 237.
[35] Liability for Damage Arising Activities (Submitted by the Netherlands)., above n 30.
[36] De la Fayette, L A. 2007. Responding to Environmental Damage in Antarctica Antarctica – Legal and Environmental Challenges for the Future pg 109-154 (edited by G. Triggs and A. Riddell). Published by the British Institute of International and Comparative Law, London.
[37] Liability for Damage Arising Activities (Submitted by the Netherlands)., above n 30.

more substantive and while much broader in its scope than the current Annex, bears some remarkable similarities to it.

ii). German chaired section

At the 17th ATCM in 1992, it was decided that a liability regime should be developed through meetings of legal experts. These meetings were chaired by a Professor Dr. Rűdiger Wolfrum from Germany, who identified the main initial issues to be discussed as follows:[38]

1. Which damages are to be covered by the future liability regime?
2. Is it appropriate to provide for a uniform liability regime covering all activities?
3. How should damages be defined?
4. What is the appropriate standard of liability?
5. Should the liability regime provide for excuses? If so, which ones?
6. What is the appropriate means to calculate the amount of compensation?
7. Who is the proper plaintiff?
8. Who is the appropriate debtor?
9. Should there be any limits to liability? If so, what means should cover costs exceeding those limits?
10. What institutions should decide on claims of compensation?

Further issues arose and were identified as negotiations progressed. These included determining the role of insurance or other financial security, as well as assessing which sorts of event(s) should give rise to liability, for example: need there be an accident or could liability arise from the everyday conduct of activities?

This phase of the negotiations concluded at an important junction in terms of the Annex's scope. The Madrid Protocol came into force in early 1998, which spurred on negotiations for the Annex to ensure its implementation. At the 22nd ATCM in Tromso, the report of the Group of Legal Experts was submitted as a working paper, with the Chairman's Eighth Offering attached.[39] At the same time, an information paper submitted by the United States delegation was considered, which provided an alternative approach to what had been discussed to date. These two documents represent the dichotomy between those Parties in favour of developing more comprehensive rules and procedures and those who preferred a more stepwise option.

The United States delegation raised some concerns with the Annex as it stood in 1997 regarding the implications to international cooperation for response actions, in scientific activities and logistics efforts.[40] In particular, the point was made that the threat of liability attaching through an environmental emergency arising during cooperative response by Parties to another environmental emergency would discourage Parties to do so. This point was not addressed by the Chairman's eighth Annex but is currently managed by article 8(2) of the Annex which provides that if the response action taken is 'reasonable in all the circumstances' no such liability will attach.

In addition, the delegation identified the issues relating to joint and several liability. It was argued that this might discourage Parties perceived to have the 'deepest pockets' from entering into joint projects because the risk that they would be the first targeted to field liability in the event of damage, irrespective of the relative levels of contribution to the project or the preventative measures taken by them.[41] It was also recognised that joint liability alone would discourage smaller

[38] Liability Annex to the Protocol, above n 22.
[39] Liability- Report of the Group of Legal Experts ATCM XXII/WP 1 (1998).
[40] Implications of the Current Draft Liability Annex to Activities among Treaty Members (submitted by United States) XXI ATCM/IP 104 (1997)
[41] Implications of the Current Draft Liability Annex (submitted by United States), above n 40.

contributors, since they would bear a disproportionately large burden if liability-arising damage were to occur. The same point was made for joint logistic efforts. These points were left unresolved by the Chairman's eighth Annex. Article 3 ter was very much still under construction, stating that where damage is caused by more than one operator they 'shall be jointly [and severally] liable in compensation for all such damage [which is not reasonably separable]'. The current Annex provides for joint and several liability, except where an operator can establish that only a part of the damage is attributable to them.[42] This seems to introduce a fault-based element to the Annex. The paragraph does not directly address the concerns of the United States delegation, since the ability to distribute blame is likely to be limited in most situations.

The Chairman's Eighth Offering:
The Chairman's eighth offering provided for liability for "damage arising from activities in the Antarctic Treaty area".[43] It proposed for a strict liability regime in which an operator that causes an 'incident' must take both 'immediate' and 'further' response action. An incident is an occurrence causing (or imminently/gravely threaten to cause) damage. Damage is defined as a harmful effect or impact caused by an activity. The draft presented two options for the required extent of impact required for the effect to amount to damage; 'more than minor and more than transitory' or 'significant and lasting'. The damage that results from unavoidable impacts of activities or in an IEE or CEE or otherwise judged acceptable by a State Party is excluded from this.

Immediate response action is an 'appropriate, timely and reasonable' reaction to minimise impact/damage/harm, taken immediately. In contrast, 'further response action' encompasses the greater aim of taking measure to clean-up or otherwise remedy any damage/harm. This latter aim is absent from the current Annex.

The current Annex does not expressly state that those activities deemed acceptable or impacting the environment unavoidably are excluded from liability. It does not need to since it inherently excludes the possibility of liability attaching in these situations since the term 'environmental emergency' (accidents) is used, rather than 'incidents' (occurrences). This makes it clear that only unintentional impact, which is not judged acceptable prior to its happening, will attract liability. The current Annex does not impose any duty to take further response action. While the response '*may* include clean-up in appropriate circumstances' [emphasis added], there is certainly no duty to do so, nor is there an obligation to 'remedy' harm, which seems to envisage some form of restoration of the environment.

The terms 'impact', 'damage' and 'harm' are used somewhat interchangeably. Although it seems from the absence in the definition of 'further response action' of the term 'impact' would suggest that this refers to the more immediate damage or harm. Applying this reasoning to the current Annex, which provides that the response action is to avoid/minimise/contain *impact*, this would suggest the duty is limited to that taken at an early stage, perhaps while the event is still occurring. This interpretation is supported by the use of the word 'contain', as though it is still in the early stages of spreading.

The eighth offering provides that where the operator has failed to authorise someone to do so on its behalf, any other State Party may take immediate response action and they or any other entity or person may take further response action. There are three noteworthy features here. The first is that the Annex would have allowed an operator the opportunity to specifically appoint or authorise a State to take response action for it. The second is that the Annex allows, but does not specifically encourage other States to take response action where no such authorisation has been given. The final point of interest is that further response action may be taken by 'any other entity or person'.

[42] Annex VI, above n 5, art 6(4).
[43] Chairman's Eighth Offering ATCM XXII/WP 1, appendix 1 (Tromso, 1998), art 2.

When immediate or further response action is taken, the operator is liable to reimburse the reasonable costs incurred. In contrast, the operator is liable for all costs under the current regime. Therefore, while the offering is prima facie narrower relative to the current Annex in the extent of liability imposed, the scope of the response action duty is itself broader, and so the amount that is deemed a reasonable cost of this is likely to be higher. However, the offering did envisage limits to liability, albeit undefined ones.

The offering is unique in its recognition that repairing damage might not only be unsuccessful or unfeasible, but might be *undesirable*.[44] This 'unrepaired damage' would require a contribution from the responsible operator to be paid into the Fund. The amount to be paid could be proposed by the operator and the Antarctic Treaty Consultative Parties (ATCPs) would have had jurisdiction to adjust it. One alternative with respect to this issue provided that the amount decided by the ATCPs would only be binding on an operator that is a State Party which is an ATCP. For all other operators, this amount would only be a 'friendly settlement'.

It seems that the 1998 Annex would have granted more procedural control to operators that the current Annex would. Under the former, an operator may authorise and so to a certain extent choose a State Party to take response action for them, thereby picking which State they will be liable to. In contrast, the current Annex seems to work in reverse, with States in a position to respond simply notifying their intention to do so.

The Chairman's offering provides that the Annex is not applicable where the situation is governed by CCAMLR, the Convention for the Conservation of Antarctic Seals or the International Convention for the Regulation of Whaling. The limitation as to the scope of the Annex's application is absent from the document adopted in 2005, suggesting that it can apply concurrently with these. The extent of its consistency with these conventions is beyond the parameters of this paper.

The United States Proposal:
This approach limited its application to environmental emergencies and was given the title 'Liability for Emergency Response Action'. This is a far cry from ASOC's 1992 'Annex on Liability and Compensation for Antarctic Activities'. The United States proposal resembles much more closely the current Annex and restricts its scope considerably relative to the Chairman's eighth offering outlined above. It presents an aspect of the comprehensive liability regime the Chairman's offering encompassed. This minimalist approach presented an attractive route in terms of its avoidance of some of the more difficult issues still to be tackled. The proposal acknowledged that these issues could be dealt with at a later date, assuring in its first article that the Annex would "not preclude the possibility of developing additional Annexes on liability for damage as the Parties deem appropriate".

- *Initial obligations*

The initial obligations to establish contingency plans mirrors article 15 of the Protocol. Unlike the Chairman's offering and the current Annex, it does not require any 'reasonable precautionary' or 'preventative' measures.

- *Activity*

The Annex also adopts the language used in article 15 with respect to which activities liability might arise from. This encompasses emergencies arising from scientific research programmes and tourism alike. It also does not distinguish between governmental and non-governmental activities. Unlike the current Annex, this proposed version would have been broader in its application because

[44] Chairman's Eighth Offering, above n 43, art 5 bis.

it does not limit the activities that could give rise to emergencies attracting liability by whether they require advance notice or not. Exactly which activities require this advance notice is unclear.

- *Event/occurance giving rise to obligations*

This proposal differs from the Chairman's eighth offering in that an 'environmental emergency' is the event giving rise to obligations, whereas the Chairman's draft uses the term 'incident', which is broader in its scope. Environmental emergencies are defined as 'unplanned or accidental events whether or not assessed in accordance with Annex 1 of the Protocol that result in, or imminently threaten to result in, any significant and harmful impact on the Antarctic environment or associated and dependent ecosystems.' Second, the United States proposal uses the standard 'significant and harmful impact' which differs from both of the Chairman's offering alternatives; 'more than minor and more than transitory' or 'significant and lasting'. The United States approach seems to employ a higher threshold in terms of the level of harm required to attract obligation. It also removes the importance of environmental impact assessment (EIA) in the determination of whether harm has occurred and whether it is acceptable. It provides for a more objective assessment, separate from the divergent views of individual states who undertake those EIA's. 'Damage' is referred to, but never specifically defined.

- *Obligation*

It reiterates the obligations that Parties have under article 15 of the Madrid Protocol, namely to provide for 'prompt and effective response action to environmental emergencies'. The proposed Annex imposes strict liability on Parties for failure to do so. There is no liability for failing to adhere to the other obligations relating to contingency plans. If an environmental emergency occurs that is not responded to appropriately, liability attaches irrespective of whether the other obligations relating to contingency plans have been fulfilled. It is noteworthy that in contrast to the Chairman's draft and the current Annex, this proposed document attaches all obligations to Parties rather than operators.

Which approach to adopt?

Arguments for producing an initial Annex limited to environmental emergency response include that the most serious problems should be dealt with first and this type of response is considered "the most likely source of 'significant adverse impacts on the Antarctic environment'.[45] Dealing with the issue was deemed to be 'relatively uncontroversial', meaning an Annex limited to existing obligations (established by article 15 of the Protocol) would allow negotiations to progress and the Annex to be more quickly adopted. However, others in favour of a single more comprehensive Annex argued that it would be less time consuming and more likely to retain momentum than would the negotiation of multiple Annexes.[46]

Conclusion for the German chaired section:

By the end of this phase of negotiations the scope of the Annex was still very much up for debate. It had not yet decided whether the Annex should itself constitute a comprehensive liability regime or merely be the first step towards it. Some of the most fundamental questions still remained. Specifically, which activities should the Annex apply to? What extent of damage/harm (in the course of the performance of those activities) should attract liability? What extent of obligations should be imposed to prevent or respond to this damage/harm?

These unsteady foundations were not sufficiently steady to support the efficient development of the more detailed rules and procedures to be considered. For example, decisions regarding the liability limits depend very much on what the obligations of the responsible party would be. This delayed the progression of negotiation considerably and much was still left unresolved.

[45] Liability- Report of the Group of Legal Experts, above n 39.
[46] Liability- Report of the Group of Legal Experts, above n 39.

iii). New Zealand chaired section

In 1999, Don McKay began chairing the discussions of the Liability Annex. It has been suggested that New Zealand was particularly well placed to lead the liability discussions given the nature of their involvement in CRAMRA.[47] While New Zealand's experience in liability negotiations would be useful, it was recognised by the United Kingdom that there was no need to develop a regime that is substantively similar to that negotiated for CRAMRA, since the circumstances of its application are different. It was argued that mineral resource activity, as an inherently dangerous activity would require a stricter approach than what would be required in general.[48]

McKay stated in 1999 that 'the future elaboration of a liability regime remains bedevilled by a fundamental difference of approach between delegations…over the basic question of whether we should be seeking to elaborate a…"comprehensive"…or "limited" annex'.[49] He suggested an alternative that might bring the two diverging approaches together.[50] This approach involved establishing a single Annex which covered the more 'generic' aspects of liability, with a number of other commitments in the form of schedules adopted as measures to follow. These schedules would address each obligation in turn. However, this approach was not pursued.

According to the paper submitted by the United Kingdom, this response no longer *required* restoration or reinstatement of the environment. The obligation was merely to take 'all reasonable measures to *deal with* the harmful effects of the impact'. It was stated in the notes to the working paper that this was meant to encompass clean-up and restoration/reinstatement were possible. Un-repaired damage is not mentioned, since there is no obligation to repair.

In 1999, discussion still revolved around defining 'incidents' and included negotiations about restorations measures. This evolved over the next few years the drafts only attached liability where there had been failure to take response action after an environmental emergency, indicative that the step-by-step approach had been adopted. It is interesting to see just how dramatically the scope was reduced; early discussions considered whether harms that were tolerated by environmental impact assessment ought to be excluded from the Annex. By now, only environmental disasters can attract liability.

In the 2004, it was considered that the greatly reduced scope might now be broadened slightly by providing that the Annex would apply to environmental emergencies arising from activities that are not subject to advance notice, where they are not covered by any other Treaty. However, this did not end up in the Annex as it currently stands which limits itself to only those activities requiring advance notice under article 7(2) of the Antarctic Treaty. The definition of an 'operator' had not yet been finalised at this stage and the use of the term 'Party of the operator' had not yet been employed, let alone defined.

The initial obligation to establish contingency plans remained, but the 'precautionary measures' required by earlier drafts had been replaced by 'preventative measures'. The former were designed to 'prevent the occurrence of incidents', while the latter was to 'reduce the likelihood of environmental emergencies.' I would argue that these are essentially synonymous, although 'preventative measures' seems more realistic in its recognition that accidents are inevitable. In the 2004 draft, there was more explanation of what was required to satisfy these initial obligations. A

[47] Hemmings, A. D. 1992. Unfreezing the Negotiations *Terra Nova* 17:8-9, 9.
[48] Liability WP, above n 12.
[49] Personal Report of the Chairman of the Liability Discussion in WG1. ATCM XXIII/WP 41 (Lima, 1999).
[50] Personal Report of the Chairman, above n 49.

response plan features on the list of what a contingency plan should include, which provides a link between the obligations.

There was no mention of restorative measures or 'further' response action at all, and clean-up was only what *may* be included in appropriate circumstances as part of the required response action. The main thrust of a response action is taking reasonable measure to prevent, mitigate or contain the impact of an environmental emergency. This definition remains the extent of the obligation to protect the environment. The measures required appear to match those of the 'immediate response action' that the Chairman's eighth offering in 1998 would have imposed, with addition of the aim to 'prevent' impact. The only aspect that seems to envisage a longer term obligation is for operators to assess the extent of impact on the environment.

A working group in May 1999 discussed whether the inclusion of the phrase 'dependent and associated ecosystems' was relevant to the definition of damage given that the Antarctic Treaty and the Protocol do not apply to them.[51] Despite this, article 16 of the Protocol provides that the liability regime should provide for their protection in addition to the 'Antarctic environment and dependent and associated ecosystems'. There is some difficulty in determining the extent of an ecosystem. By 2004, the term 'damage' was no longer defined, or indeed used in the revised Chairman's draft.[52] Ecosystems were also absent from the definition of 'environmental emergency' to which response action would be necessary. The concept of ecosystem protection was retained in the preamble, but it should be noted that preambles are not an operative element of international conventions.

The United Kingdom stated in 1999 that "environmental damage is not a regular daily, monthly or even yearly occurrence in Antarctica".[53] This indicates that damage is defined narrowly, with only those 'occurrences' meeting a high threshold included within it. Yet, in 2004, the revised chairman's draft (and indeed the current Annex) required neither that the damage be permanent nor lasting for liability to attach. Damage itself is not defined at all. Instead the focus has shifted to the event which causes the harm – which is limited to the article 15 obligation to respond to 'environmental emergencies' (consistent with the 1996 United States delegation proposal). These were defined consistently with the current Annex.

A working paper submitted by New Zealand at the 23rd ATCM in 1999 addressed the concerns of the United States discussed in the above section regarding the effect that joint and several liability might have on international collaborative science.[54] New Zealand argued that such a regime would not necessarily discourage joint projects since Parties are free to develop their own agreements in advance distributing the extent of any liability arising from their activities. This would allow the operators themselves, who are in the best positions to determine the extent of their relative contributions to the project, to determine how responsibility should be distribute any responsibility should the situation arise.

Other points of interest include that by 2004, an 'agent or operator' could take response action on for a Party. This is a change from the previous provisions which used the phrase 'entity or person'. The practical difference between these is unclear. Another notable change is the absence of the provision for an operator to propose the amount payable to the Fund where no response action has

[51] Personal Report of the Chairman, above n 49.
[52] Revised Chairman's Draft of Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty: "Liability airings form Environmental Emergencies" XXVII ATCM/IP 110 (2004).
[53] Liability WP, above n 12.
[54] Joint and Several Liability and International Collaborative Science (submitted by New Zealand). ATCM XXIII/WP 10 (Lima, 1999).

been taken to an environmental emergency they have caused. It was also discussed whether final figures for maximum levels of liability should be expressed as Special Drawing Rights (SDR). Limits differed among vessels depending on whether they carried oil in bulk as cargo. The draft provided that reimbursement by the Fund was not automatic and would require approval by ATCM Decision. Surprisingly, the paragraph in earlier drafts that provides an exception to liability where there is armed conflict or terrorism is absent from the 2004 draft.

Conclusion of New Zealand chaired section

In general, by the end of this phase in the negotiations, the draft contained most of what became the final Annex. However, it was remarkable that less than a year before it was adopted, that some of the most fundamental of questions had not yet been resolved. It seemed these fundamental questions were the ones which were the most difficult to answer and reach agreement on. The process seemed a bit like that of an artist who is sketching a person's features in an unusual order, having started with the easier details of the face before outlining the rest of the body on which it rests.

iv). Final year

The final year of negotiations and particularly the ATCM in Stockholm in 2005, when the Annex was adopted was 'the scene of intense, last-minute negotiations and compromises'.[55]

Preamble

It was decided that the preamble which developed during the last phase of negotiation was appropriate despite the absence of them in the preceding Annexes. This was decided on the basis that the context in which the Annex was negotiated had an impact on how it came to be.[56]

Scope

Even at this late stage, delegations differed in the scope of the Annex, including whether its limitation to only those activities which under article 7(2) required advance notice. Article 16 does not limit the liability regime is requires Parties to develop in this way. However, agreement could not be reached for any other alternative and all Parties eventually agreed to it. Equally, many delegations had been in favour of the Annex's liability provisions applying to fishing vessels and tourist vessels that do not land, but again had to be satisfied with the more limited scope to which all Parties could agree.

Who can take response action and be reimbursed for it?

While Parties can authorise their 'agents and operators' to take action on their behalf, article 7(1) states that only Parties can bring an action against an operator who caused the emergency but failed to respond to it. [57] This is likely to discourage operators to step in without the Party of that operator having given consent to do so. However, it could slow and therefore reduce the effectiveness of any response action taken.

The Fund

The Annex had lost the aspect of the Fund article that stated that operators could determine the amount they should pay into it by 2004 and the final Annex remains silent on exactly how this should be determined. It was noted that this was not supposed to serve a punitive function, only pay the costs of the response action that should have been taken, which avoids the situation of an operator not taking response action in the hope that nobody else will, allowing the avoidance of

[55] Johnson, above n 6, 33.
[56] Final Report, Agenda Item 8: Liability (Statement of the Member States of the European Union) ATCM XXVIII (Stockholm, 2005), 2.
[57] Final Report (Statement of the Member States of the European Union), above n 56.

liability. It was considered whether the Fund should not be available to Parties of the operator responsible. In the end it was left as a matter to be 'taken into account'[58] by the ATCM.

Limits on liability

Having limits to liability is crucial in ensuring the feasibility of continued non-state activities, since insurance cannot realistically cover situations of unlimited liability.[59] These limits were finally decided, although many delegations considered that they were too low. The limits depend on the tonnage for vessels (rather than the amount of oil, as was proposed in 2004) and it was decided that separate limits need not be made for aircraft. Thus, the categories were 3 tiers of vessel size (tonnage) and a separate one for all other activities. This was to reflect the risk that each size vessel would pose, as well as how feasible insurance cover for it would be.[60] It was also decided that the limits should be reviewed every three years. It was decided that a 15 year limit would be appropriate to bring an action against a non-state operator. This was considered too long by some delegations, but was eventually agreed to.

Exceptions

A proposal was made to include an exemption to liability where environmental emergencies were the result of armed conflict or terrorism. It was finally agreed to include terrorism and acts of belligerency (armed conflict was considered superfluous given the effective prohibition in the Antarctic Treaty.[61] It is interesting to note that some of the earlier drafts included this in their list of exceptions, but it was lost along the way (for example, see the revised Chairman's draft from mid 2004 draft) and was restored again in the final stages of negotiations.

The Annex was finally signed on June 17, 2005 as a legally binding measure. According to McKay, the 'spirit of camaraderie and flexibility' had been essential to Annex's successful adoption.[62]

Conclusion on the substantive challenges:

In the German chaired section the extent of the complexity of the task had truly been revealed and the main options had been laid out, namely the comprehensive approach of the Chairman's eighth offering and the step-by-step approach championed by the United States proposal from 1996. Some decisions had been made, for example that liability would be strict, that operators would be primarily liable for harm/damage caused, that a Fund would be established where harm had not be sufficiently responded to, and that there would be limits to and exemptions from liability in certain situations. However, it was not until the New Zealand chaired section of negotiations that it became clear that the step-by-step approach would the method of development to be adopted. While some delegations would have preferred the comprehensive approach, the resolution of the Annex's scope at least allowed for more efficient negotiation with the discussions better able to address and resolve the issues at hand.

The above is an outline of some of the fragments of discussion at various points. It can only be used as a guide to illustrate the range and complexity of the issues involved. The substantive questions to be answered in the development of a liability regime are numerous and complex. Over time, the Annex underwent great changes, which are reflected to an extent by the different titles given to the many drafts proposed. Early in the negotiations, one draft was called 'Annex on Liability and Compensation for Antarctic Activities' and another 'Liability for Damage Arising Activities'. This was soon narrowed to 'Annex on Environmental Liability' and 'Liability for Emergency Response

[58] Annex VI, above n 5, art 12.
[59] Bloom, above n 3, 3.
[60] Chairman's Report on Informal Consultations Convened in New York from 12 to 15 April 2005. ATCM XXVIII/IP 109 (Stockholm, 2005).
[61] Antarctic Treaty 1959, article 1.
[62] Final Report (Statement of the Member States of the European Union), above n 56, 7.

Action' until in 2005 the Annex was finally adopted with the title 'Liability arising from Environmental Emergencies'.

b). Procedural constraints

i). Diversity of legal systems

When negotiations of a liability regime began in 1992, there were 26 consultative Party states. By the time these negotiations closed 13 years later another two states, Bulgaria and Ukraine, had reached consultative status in 1998 and 2004 respectively. The Parties were clearly diverse, ranging from the likes of Argentina, Ecuador and Chile, to France, Germany, Norway, Russia, South Africa and Uruguay. Attempting to amalgamate each Party's view, bearing in mind the differing agendas and political viewpoints, is no easy task by any stretch of the imagination. However, this is true of many international negotiations and does not of itself explain why it took 13 years to produce an Annex that everyone could agree on, especially given that the whole Madrid Protocol and first four Annexes took less than a year to produce.[63] However, it certainly illustrates and contributes to why negotiating a matter as complex as a liability regime for damage to the Antarctic environment might prove particularly difficult to resolve.

ii). Consensus required by all Consultative Parties

The addition of an Annex requires the consensus of the voting consultative Parties. This affords any Parties that do not agree to the more stringent measures proposed a great amount of bargaining power. At the beginning of negotiations in 1992, there were 26 (and by 2005, there were 28) of these Parties that each must agree to every provision of the Annex before it can be adopted. This had a 'significant effect on the dynamics of the negotiations'.[64] While a state might not want to be seen to be shying away from its environmental commitments, the unanimity requirement allows Parties an effective veto and so the level of responsibility imposed by the Annex had to be agreed to by the most hesitant, inflexible Consultative Party on each point.

The procedure becomes somewhat of a trade-off for the Parties in support of more stringent liability rules in deciding how best to approach the negotiations. On the one hand, it might be worth labouring on through negotiations in an attempt to reach an agreement on some of the more difficult issues (but this is by no means a guaranteed result). Alternatively, it might be wiser to get agreement more quickly and lay down some rules on some of the more easily satisfied questions, sacrificing some of the substantial issues or at least leaving them for later. This latter approach was eventually settled on, with the adoption of a step-wise approach. Annex 6 amounts to the first step.

iii). Changing personnel over time

Over a period of 13 years, personnel are bound to change. The Chairman of the negotiations changed around 1999 and the delegations from each Party would likely have altered significantly over the course of more than a decade. While this might have allowed for new ideas to come through, the process of succession would have caused inconsistency in approach to an extent and general interruption to the progress of the Annex.

iv). Language barriers

In 1996, the choice of language used during negotiations was brought into question. All negotiations had taken place in English alone. Some delegations argued that all documents associated with the Group of Legal Experts should be made available in each of the other three official Antarctic Treaty languages,[65] namely Spanish, French and Russian. However, this was met with opposition by some who argued that the time and resources required to do so would be too

[63] De la Fayette, above n 36.
[64] Johnson, above n 6, 36.
[65] Implications of the Current Draft Liability Annex (submitted by United States), above n 40, 10.

great for the host Government of each meeting.[66] I would argue that while the task of translating each document would be an onerous one, the alternative would only slow negotiations down. Those Parties whose national language is not English are essentially left in the dark or must employ their own translators, which might give inconsistent interpretations. It might have been wiser to have all negotiation documents in each of the languages might have prevented miscommunication at this early stage, allowing for better understanding of how the drafts evolved, in turn promoting more informed and effective negotiation.

c). Political climate

It has been suggested that a number of political aspects, such as a lack of interest and urgency did nothing to encourage the quick resolution of liability discussions.[67] In addition it was suggested that prior to the Protocol's entry into force in 1998, there was reluctance to seriously consider the liability Annex.[68] Operators themselves did not support the discussions since it could affect operating budgets. With little pressure from the public, due to little media attention, [69] motivation to get the Annex finished was lacking to a certain extent.

5. The Annex now and in the future

a). What the Annex would achieve in its current form

The duty to take response action is not itself new; article 15 of the Madrid Protocol specifically obligates Parties to provide for emergency response action. Likewise, the duty to establish contingency plans was firmly established in the same article. However, these duties only extended to *Parties*, not to their operators. The Annex extends the obligation of Parties to adopt laws requiring their *operators* to take establish contingency plans and take response action where their activities have caused an environmental emergency. The Annex also provides that Parties need to ensure their operators take preventative measures to reduce the likelihood of environmental emergencies. The Annex also expands, albeit in vague terms, on what amounts to an environmental emergency and what the aims of a response action are. Prior to the Annex, these concepts were entirely without explanation. In addition, the Annex sets out what the situation would be, should an operator not meet their response action obligations. However, it is unclear what sanctions an operator would face if they should fail to undertake preventative measures or fail to establish contingency plans. Presumably, this would be left to the Party of the operator. The German delegation in their submission in 1994 stated that most international instruments impose strict liability, [70] but according to Francioni strict liability is "exceptional in the field of international environmental law".[71] If so, the Annex will be a leader in its field in this respect.

It is also important to remember that the Annex sets out only *civil* liability laws, which generally impose obligations on operators, with the only responsibility of Parties of the operators to pass laws requiring them to be followed.[72] Once the Annex has entered into force, it will bind *all* Parties to the Protocol, even non-Consultative Parties which did not have a voice in its negotiation. However, the situation is different for Third Party States. States are generally not bound to international instruments to which they are not a Party. This means that an operator that belongs to a State that is not a member of the Antarctic Treaty will not necessarily be subject to any laws relating to the Antarctic environment, let alone a liability regime. Only if a law becomes customary international

[66] Implications of the Current Draft Liability Annex (submitted by United States), above n 40, 10.
[67] Hemmings, A. D. Comments on 'Chairman's Fifth Offering' ATCM XX (19 February 1996).
[68] Agenda item 6: Protocol on Environmental Protection to the Antarctic Treaty (submitted by New Zealand) ATCM XX/WP (1996).
[69] Hemmings, above n 67.
[70] Liability Annex to the Protocol (submitted by Germany), above n 22, 3.
[71] Francioni, above n 18, 246
[72] Johnson, above n 6, 36.

law, through state practice and *opinio juris* (a sense of obligation) will non-Party states be bound by it. Considering the provisions of the Antarctic Treaty itself are not established as customary international law, it seems highly unlikely that the liability provisions contained in Annex 6 will become so. While there is a 'kind of tacit acceptance of the current regime by most non-Parties',[73] this is not the same as being bound. However, they *will* remain bound by any applicable customary international law.

It is also important to remember that many of the provisions set out in the Annex will only come into play when they has been failure to do something. The commendable response to the *Bahia Pariso* accident is testimony that many of the obligations with respect to are already being fulfilled and the Annex provides only a baseline above which Parties will hopefully continue to perform.

b). Current developments

It is difficult to predict when the Annex will come into force. Some countries tend to lag behind in ratifying international laws after signing them. Russia took 6 years to ratify the Protocol, which came into force 7 years after it was adopted. However, it should come into force *eventually*. Despite Don MacKay's statement that none of the delegations is likely to be truly satisfied with the Annex, they have all agreed to each of its provisions and signed it which shows a willingness to be bound. One of the challenges to bringing the Annex into force through ratification was identified by a delegation in 2005 as the ability to obtain insurance for land-based activities. This 'seemed not to be available' at the time. I am unsure as to whether this is still the case but if it is, it could slow or even hold the ratification procedure.

c). Further guidelines to Annex 6 and the creation of additional Annexes

One might expect that a document that had taken 13 years to agree on would be precise and unequivocal. Yet there are a number of lacunas and areas of ambiguity which arguably require resolution to ensure the effective implementation of the Annex. Some of this ambiguity might be the necessary and even desirable for reasonable application in a range of situations. However, I recognise that these ambiguities will tend to reflect differences in opinions among the Parties. For example, each environmental emergency requires independent assessment of the form and extent of response that will be appropriate. However, it seems likely based on the divergent view expressed during negotiations that certain issues have been circumvented to procure agreement among the consultative Parties.

Considering the magnitude of obstacles tackled to reach agreement on Annex 6 as it currently stands, it might be best to spend most of our efforts on moving forward and beginning to develop further liability Annexes, rather than attempting to make real changes to the one already agreed upon. However, the following paragraphs identify some of the remaining issues surrounding the Annex as it stands.

- Advance notice

As discussed above, liability only attaches when the environmental emergency results from activity that required advance notice. So is unclear whether reimbursement could be sought by a Party having responded to an environmental emergency caused by an activity that did not require advance notice. This is particularly problematic given that the activities that *do* require advance notice under the Treaty are not well established.

[73] De la Fayette, above n 36.

- *Liability/compensation/reimbursement*

A common theme running through and even within the proposals and offerings seemed to be the use of certain words interchangeably. Terms like 'liability', 'compensation' and 'reimbursement', were thrown around like paper planes, rarely if ever defined. Some terms like 'damage' were given some explanation, but other similar terms such as 'harm' and 'impact' were used but left without expansion as to what they might really mean. While ambiguity would have been an asset in procuring consensus, it might also have hindered the logical progression of negotiation.

- *Significant and harmful*

As ASOC points out in its analysis paper, terms used in the Annex are not always consistent with those used in the Protocol.[74] For example, the impact used to define environmental emergency in article 2 of the Annex is described as "significant and harmful". This differs from the more familiar phrase used in the Protocol; "minor and transitory impact". There is no clear indication as to what amounts to significant or harmful impact or who would be in the position to decide when that threshold has been met. It seems that research scientists would be best placed to answer this question, since it is their job to assess the environment and any impacts on it.

- *'Intentional' environmental emergencies*

Article 9(3), states that "liability shall not be limited if it is proved that the environmental emergency was caused with the intent to cause such emergency". This seems unnecessary since an emergency is defined as an *accidental* event, which is inherently unplanned. It seems then that if harm occurs as a result of intentional acts with the intent to cause that harm, it is not an environmental emergency, and thus, liability will not attach under the Annex. While this situation seems improbable, it is one of many inconsistencies which weaken its structure and could potentially reduce a Parties' willingness to take response action.

- *Ecosystem*

The Protocol envisaged the development of liability rules for the protection of "the Antarctic environment" and "associated and dependent ecosystems", yet the Annex only applies to the former. Neither the Protocol nor the Annex specifically defines this. If the environment does not include its ecosystems then an environmental emergency will not arise, and thus liability will not attach, if an accidental event only harms the latter.

- *Response action*

Exactly what action will satisfy the obligation to take response action is unclear. It is defined in vague terms: 'reasonable measures… to avoid, minimise or contain the impact'. This seems to suggest that any one of these options is sufficient. The absence of any specific parameters against which to measure any action taken will also result in difficulty determining when a response action has in fact been taken. The amount an operator will have to pay will depend on its response action or that of a Party that responded for it. Having vague parameters for what will satisfy this requirement might result in operators taking minimalist measures, thereby reducing the cost of the response. This could also have implications in determining the appropriate amount of money to be paid into the Fund when no response is taken.

6. Conclusions:

To date there appears to have been no attempt to bring an action for reimbursement of response action taken on another's behalf. However, as accessibility to Antarctica continues to improve and more people want to visit or conduct research in the continent, the need for this Annex will likely

[74] ASOC Analysis of First Antarctic Liability Regime (August 3, 2005).

become apparent. Annex 6 represents an important first step in the performance of the obligation provided by article 16 of the Madrid Protocol to establish a comprehensive liability regime for the environmental protection of the Antarctic environment. While it is only the first step, it is a important accomplishment that carves the path for development of additional liability Annexes, covering responsibility for a wider range of situations where harm results from activities being undertaken in Antarctic Treaty area. Identification of the issues surrounding some of the more difficult elements of liability, left unresolved by the current Annex, might now prove useful as a platform from which to proceed for the establishment of these additional Annexes.

The liability Annex took 13 years to negotiate and lost much in terms of the scope of its application along the way, which reflects the complex and controversial nature of the problems tackled, as well as the procedural challenges and general political climate. Further guidelines might be required to make some of the more ambiguous provisions more clear, but it seems the ambiguity was often not accidental, illustrating a form of compromise employed to procure consensus. The focus must now to turn to bringing it into force. In theory at least, this should not prove problematic since all consultative Parties have agreed to its provisions and all that remains is for each to domestically implement them.

If the international community is serious about their commitments to protect the Antarctic environment, it is important that more time and resources are not spent debating how to protect than spent *actually* protecting it. Of course, this is not easily done and the energy put into ensuring that a truly comprehensive liability regime is agreed on will help ensure more effective protection of the environment in the long run.

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8. Appendix

Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty
Liability Arising From Environmental Emergencies

Preamble

The Parties,

Recognising the importance of preventing, minimising and containing the impact of environmental emergencies on the Antarctic environment and dependent and associated ecosystems;

Recalling Article 3 of the Protocol, in particular that 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;

Recalling the obligation in Article 15 of the Protocol to provide for prompt and effective response action to environmental emergencies, and to establish contingency plans for response to incidents with potential adverse effects on the Antarctic environment or dependent and associated ecosystems;

Recalling Article 16 of the Protocol under which the Parties to the Protocol undertook consistent with the objectives of the Protocol for the comprehensive protection of the
Antarctic environment and dependent and associated ecosystems to elaborate, in one or more
Annexes to the Protocol, rules and procedures relating to liability for damage arising from activities taking place in the Antarctic Treaty area and covered by the Protocol;

Noting further Decision 3 (2001) of the XXIVth Antarctic Treaty Consultative Meeting regarding the elaboration of an Annex on the liability aspects of environmental emergencies, as a step in the establishment of a liability regime in accordance with Article 16 of the
Protocol;

Having regard to Article IV of the Antarctic Treaty and Article 8 of the Protocol;

Have agreed as follows:

Article 1

Scope

This Annex shall apply to environmental emergencies in the Antarctic Treaty area which relate to scientific research programmes, tourism and all other governmental and nongovernmental 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.
Measures and plans for preventing and responding to such emergencies are also included in this Annex. It shall apply to all tourist vessels that enter the Antarctic Treaty area. It shall also apply to environmental emergencies in the Antarctic Treaty area which relate to other vessels and activities as may be decided in accordance with Article 13.

Article 2

Definitions

For the purposes of this Annex:

(a) "Decision" means a Decision adopted pursuant to the Rules of Procedure of Antarctic Treaty Consultative Meetings and referred to in Decision 1 (1995) of the XIXth Antarctic Treaty Consultative Meeting;

(b) "Environmental emergency" means any accidental event that has occurred, having taken place after the entry into force of this Annex, and that results in, or imminently threatens to result in, any significant and harmful impact on the Antarctic environment;

(c) "Operator" means any natural or juridical person, whether governmental or nongovernmental, which organises activities to be carried out in the Antarctic Treaty area. An operator does not include a natural person who is an employee, contractor, subcontractor, or agent of, or who is in the service of, a natural or juridical person, whether governmental or non-governmental, which organises activities to be carried out in the Antarctic Treaty area, and does not include a juridical person that is a contractor or subcontractor acting on behalf of a State operator;

(d) "Operator of the Party" means an operator that organises, in that Party's territory, activities to be carried out in the Antarctic Treaty area, and:

(i) those activities are subject to authorisation by that Party for the Antarctic Treaty area; or

(ii) in the case of a Party which does not formally authorise activities for the Antarctic Treaty area, those activities are subject to a comparable regulatory process by that Party.

The terms "its operator", "Party of the operator", and "Party of that operator" shall be interpreted in accordance with this definition;

(e) "Reasonable", as applied to preventative measures and response action, means measures or actions which are appropriate, practicable, proportionate and based on the availability of objective criteria and information, including:

(i) risks to the Antarctic environment, and the rate of its natural recovery;

(ii) risks to human life and safety; and

(iii) technological and economic feasibility;

(f) "Response action" means reasonable measures taken after an environmental emergency has occurred to avoid, minimise or contain the impact of that environmental emergency, which to that end may include clean-up in appropriate circumstances, and includes determining the extent of that emergency and its impact;

(g) "The Parties" means the States for which this Annex has become effective in accordance with Article 9 of the Protocol.

Article 3

Preventative Measures

1. Each Party shall require its operators to undertake reasonable preventative measures that are designed to reduce the risk of environmental emergencies and their potential adverse impact.

2. Preventative measures may include:

(a) specialised structures or equipment incorporated into the design and construction of facilities and means of transportation;

(b) specialised procedures incorporated into the operation or maintenance of facilities and means of transportation; and
(c) specialised training of personnel.

Article 4

Contingency Plans

1. Each Party shall require its operators to:
(a) establish contingency plans for responses to incidents with potential adverse impacts on the Antarctic environment or dependent and associated ecosystems; and
(b) co-operate in the formulation and implementation of such contingency plans.
2. Contingency plans shall include, when appropriate, the following components:
(a) procedures for conducting an assessment of the nature of the incident;
(b) notification procedures;
(c) identification and mobilisation of resources;
(d) response plans;
(e) training;
(f) record keeping; and
(g) demobilisation.

3. Each Party shall establish and implement procedures for immediate notification of, and co-operative responses to, environmental emergencies, and shall promote the use of notification procedures and co-operative response procedures by its operators that cause environmental emergencies.

Article 5

Response Action

1. Each Party shall require each of its operators to take prompt and effective response action to environmental emergencies arising from the activities of that operator.

2. In the event that an operator does not take prompt and effective response action, the
Party of that operator and other Parties are encouraged to take such action, including through their agents and operators specifically authorised by them to take such action on their behalf.

3. (a) Other Parties wishing to take response action to an environmental emergency pursuant to paragraph 2 above shall notify their intention to the Party of the operator and the Secretariat of the Antarctic Treaty beforehand with a view to the Party of the operator taking response action itself, except where a threat of significant and harmful impact to the Antarctic environment is imminent and it would be reasonable in all the circumstances to take immediate response action, in which case they shall notify the Party of the operator and the Secretariat of the Antarctic Treaty as soon as possible.

(b) Such other Parties shall not take response action to an environmental emergency pursuant to paragraph 2 above, unless a threat of significant and harmful impact to the Antarctic environment is imminent and it would be reasonable in all the circumstances to take immediate response action, or the Party of the operator has failed within a reasonable time to notify the Secretariat of the Antarctic Treaty that it will take the response action itself, or where that response action has not been taken within a reasonable time after such notification.

(c) In the case that the Party of the operator takes response action itself, but iswilling to be assisted by another Party or Parties, the Party of the operator shallcoordinate the response action.

4. However, where it is unclear which, if any, Party is the Party of the operator or it appears that there may be more than one such Party, any Party taking response action shall make best endeavours to consult as appropriate and shall, where practicable, notify the Secretariat of the Antarctic Treaty of the circumstances.

5. Parties taking response action shall consult and coordinate their action with all other Parties taking response action, carrying out activities in the vicinity of the environmental emergency, or otherwise impacted by the environmental emergency, and shall, where practicable, take into account all relevant expert guidance which has been provided by permanent observer delegations to the Antarctic Treaty Consultative Meeting, by other organisations, or by other relevant experts.

Article 6

Liability

1. An operator that fails to take prompt and effective response action to environmental emergencies arising from its activities shall be liable to pay the costs of response action taken by Parties pursuant to Article 5(2) to such Parties.

2. (a) When a State operator should have taken prompt and effective response action but did not, and no response action was taken by any Party, the State operator shall be liable to pay the costs of the response action which should have been undertaken, into the fund referred to in Article 12.

(b) When a non-State operator should have taken prompt and effective response action but did not, and no response action was taken by any Party, the non-State operator shall be liable to pay an amount of money that reflects as much as possible the costs of the response action that should have been taken. Such money is to be paid directly to the fund referred to in Article 12, to the Party of that operator or to the Party that enforces the mechanism referred to in Article 7(3). A Party receiving such money shall make best efforts to make a contribution to the fund referred to in Article 12 which at least equals the money received from the operator.

3. Liability shall be strict.

4. When an environmental emergency arises from the activities of two or more operators, they shall be jointly and severally liable, except that an operator which establishes that only part of the environmental emergency results from its activities shall be liable in respect of that part only.

5. Notwithstanding that a Party is liable under this Article for its failure to provide for prompt and effective response action to environmental emergencies caused by its warships, naval auxiliaries, or other ships or aircraft owned or operated by it and used, for the time being, only on government non-commercial service, nothing in this Annex is intended to affect the sovereign immunity under international law of such warships, naval auxiliaries, or other ships or aircraft.

Article 7

Actions

1. Only a Party that has taken response action pursuant to Article 5(2) may bring an action against a non-State operator for liability pursuant to Article 6(1) and such action may be brought in the courts of not more than one Party where the operator is incorporated or has its principal place of business or his or her habitual place of residence. However, should the operator not be incorporated in a Party or have its principal place of business or his or her habitual place of residence in a Party, the action may be brought in the courts of the Party of the operator within the

meaning of Article 2(d). Such actions for compensation shall be brought within three years of the commencement of the response action or within three years of the date on which the Party bringing the action knew or ought reasonably to have known the identity of the operator, whichever is later. In no event shall an action against a non-State operator be commenced later than 15 years after the commencement of the response action.

2. Each Party shall ensure that its courts possess the necessary jurisdiction to entertain actions under paragraph 1 above.

3. Each Party shall ensure that there is a mechanism in place under its domestic law for the enforcement of Article 6(2)(b) with respect to any of its non-State operators within the meaning of Article 2(d), as well as where possible with respect to any non-State operator that is incorporated or has its principal place of business or his or her habitual place of residence in that Party. Each Party shall inform all other Parties of this mechanism in accordance with Article 13(3) of the Protocol. Where there are multiple Parties that are capable of enforcing
Article 6(2)(b) against any given non-State operator under this paragraph, such Parties should consult amongst themselves as to which Party should take enforcement action. The mechanism referred to in this paragraph shall not be invoked later than 15 years after the date the Party seeking to invoke the mechanism became aware of the environmental emergency.

4. The liability of a Party as a State operator under Article 6(1) shall be resolved only in accordance with any enquiry procedure which may be established by the Parties, the provisions of Articles 18, 19 and 20 of the Protocol and, as applicable, the Schedule to the Protocol on Arbitration.

5. (a) The liability of a Party as a State operator under Article 6(2)(a) shall be resolved only by the Antarctic Treaty Consultative Meeting and, should the question remain unresolved, only in accordance with any enquiry procedure which may be established by the Parties, the provisions of Articles 18, 19 and 20 of the Protocol and, as applicable, the Schedule to the Protocol on Arbitration.

(b) The costs of the response action which should have been undertaken and was not, to be paid by a State operator into the fund referred to in Article 12, shall be approved by means of a Decision. The Antarctic Treaty Consultative Meeting should seek the advice of the Committee on Environmental Protection as appropriate.

6. Under this Annex, the provisions of Articles 19(4), 19(5), and 20(1) of the Protocol, and, as applicable, the Schedule to the Protocol on Arbitration, are only applicable to liability of a Party as a State operator for compensation for response action that has been undertaken to an environmental emergency or for payment into the fund.

Article 8

Exemptions from Liability

1. An operator shall not be liable pursuant to Article 6 if it proves that the environmental emergency was caused by:

(a) an act or omission necessary to protect human life or safety;
(b) an event constituting in the circumstances of Antarctica a natural disaster of an exceptional character, which could not have been reasonably foreseen, either generally or in the particular case, provided all reasonable preventative measures have been taken that are designed to reduce the risk of environmental emergencies and their potential adverse impact;
(c) an act of terrorism; or
(d) an act of belligerency against the activities of the operator.

2. A Party, or its agents or operators specifically authorised by it to take such action on its behalf, shall not be liable for an environmental emergency resulting from response action taken by it pursuant to Article 5(2) to the extent that such response action was reasonable in all the circumstances.

Article 9

Limits of Liability

1. The maximum amount for which each operator may be liable under Article 6(1) or Article 6(2), in respect of each environmental emergency, shall be as follows:

(a) for an environmental emergency arising from an event involving a ship:

(i) one million SDR for a ship with a tonnage not exceeding 2,000 tons;

(ii) for a ship with a tonnage in excess thereof, the following amount in addition to that referred to in (i) above:

- for each ton from 2,001 to 30,000 tons, 400 SDR;
- for each ton from 30,001 to 70,000 tons, 300 SDR; and
- for each ton in excess of 70,000 tons, 200 SDR;

(b) for an environmental emergency arising from an event which does not involve a ship, three million SDR.

2. (a) Notwithstanding paragraph 1(a) above, this Annex shall not affect:

(i) the liability or right to limit liability under any applicable international limitation of liability treaty; or

(ii) the application of a reservation made under any such treaty to exclude the application of the limits therein for certain claims; provided that the applicable limits are at least as high as the following: for a ship with a tonnage not exceeding 2,000 tons, one million SDR; and for a ship with a tonnage in excess thereof, in addition, for a ship with a tonnage between 2,001 and 30,000 tons, 400 SDR for each ton; for a ship with a tonnage from 30,001 to 70,000 tons, 300 SDR for each ton; and for each ton in excess of 70,000 tons, 200 SDR for each ton.

(b) Nothing in subparagraph (a) above shall affect either the limits of liability set out in paragraph 1(a) above that apply to a Party as a State operator, or the rights and obligations of Parties that are not parties to any such treaty as mentioned above, or the application of Article 7(1) and Article 7(2).

3. Liability shall not be limited if it is proved that the environmental emergency resulted from an act or omission of the operator, committed with the intent to cause such emergency, or recklessly and with knowledge that such emergency would probably result.

4. The Antarctic Treaty Consultative Meeting shall review the limits in paragraphs 1(a) and 1(b) above every three years, or sooner at the request of any Party. Any amendments to these limits, which shall be determined after consultation amongst the Parties and on the basis of advice including scientific and technical advice, shall be made under the procedure set out in Article 13(2).

5. For the purpose of this Article:

(a) “ship” means a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air-cushion vehicles, submersibles, floating craft and fixed or floating platforms;

(b) “SDR” means the Special Drawing Rights as defined by the International Monetary Fund;

(c) a ship's tonnage shall be the gross tonnage calculated in accordance with the tonnage measurement rules contained in Annex I of the International Convention on Tonnage Measurement of Ships, 1969.

Article 10

State Liability

A Party shall not be liable for the failure of an operator, other than its State operators, to take response action to the extent that that Party took appropriate measures within its competence, including the adoption of laws and regulations, administrative actions and enforcement measures, to ensure compliance with this Annex.

Article 11

Insurance and Other Financial Security

1. Each Party shall require its operators to maintain adequate insurance or other financial security, such as the guarantee of a bank or similar financial institution, to cover liability under Article 6(1) up to the applicable limits set out in Article 9(1) and Article 9(2).

2. Each Party may require its operators to maintain adequate insurance or other financial security, such as the guarantee of a bank or similar financial institution, to cover liability under Article 6(2) up to the applicable limits set out in Article 9(1) and Article 9(2).

3. Notwithstanding paragraphs 1 and 2 above, a Party may maintain self-insurance in respect of its State operators, including those carrying out activities in the furtherance of scientific research.

Article 12

The Fund

1. The Secretariat of the Antarctic Treaty shall maintain and administer a fund, in accordance with Decisions including terms of reference to be adopted by the Parties, to provide, *inter alia*, for the reimbursement of the reasonable and justified costs incurred by a Party or Parties in taking response action pursuant to Article 5(2).

2. Any Party or Parties may make a proposal to the Antarctic Treaty Consultative Meeting for reimbursement to be paid from the fund. Such a proposal may be approved by the Antarctic Treaty Consultative Meeting, in which case it shall be approved by way of a Decision. The Antarctic Treaty Consultative Meeting may seek the advice of the Committee of Environmental Protection on such a proposal, as appropriate.

3. Special circumstances and criteria, such as: the fact that the responsible operator was an operator of the Party seeking reimbursement; the identity of the responsible operator remaining unknown or not subject to the provisions of this Annex; the unforeseen failure of the relevant insurance company or financial institution; or an exemption in Article 8 applying, shall be duly taken into account by the Antarctic Treaty Consultative Meeting under paragraph 2 above.

4. Any State or person may make voluntary contributions to the fund.

Article 13

Natalie Pilcher

Amendment or Modification

1. This Annex may be amended or modified by a Measure adopted in accordance with Article IX(1) of the Antarctic Treaty.

2. In the case of a Measure pursuant to Article 9(4), and in any other case unless the Measure in question specifies otherwise, the amendment or modification shall be deemed to have been approved, and shall become effective, one year after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more Antarctic Treaty Consultative Parties notifies the Depositary, within that time period, that it wishes any extension of that period or that it is unable to approve the Measure.

3. Any amendment or modification of this Annex which becomes effective in accordance with paragraph 1 or 2 above shall thereafter become effective as to any other Party when notice of approval by it has been received by the Depositary.