COMITÉ MARITIME INTERNATIONAL

International Working Group (Polar Shipping)

Subgroup	Antarctic Shipping
Chair	David Baker
Lead author	David Baker, Stacey Fraser, Emily Ferguson
Contributors[1]	Leyla Pearson
Working paper history	• Commissioned by IWG: October 2019 • Considered by the subgroup: during 2021-2023 • Considered by the IWG: CMI Antwerp, 19 October 2022 & CMI Montreal, 14 June 2023 • Uploaded to CMI website: Anticipated in August 2023 • Published in 2022 CMI Yearbook: Anticipated in CMI Yearbook 2023

WORKING PAPER

Antarctica: The new Alsatia for Liability and Compensation for Ship-Sourced Pollution Damage?

Introduction

Antarctica,[2] the world's southernmost continent is known for its frozen, remote, and mystifying landscape. Equally mystifying are the international rules governing the obligations, liabilities, and compensation for ship-sourced environmental damage in its surrounding waters.

An increasing range of vessels operate in Antarctic waters each year to undertake scientific research, tourism ventures, and commercial fishing, among other activities. The increase in maritime activities inherently carries the increased risk of a casualty. A casualty in Antarctic waters (after any risk to the safety of life at sea abates), brings the possibility of significant adverse impacts to the environment, whether through the escape of oil or other harmful substances from a ship or dealing with the wreck or equipment from on board the ship itself.

The maritime industry has long recognized the need for uniform rules for safety standards and measures to reduce the risk of a casualty and, in the event of a casualty, for the responsibilities, liabilities, and compensation for ship-sourced pollution damage.

But Antarctica has unique characteristics, and activities in Antarctica are governed through the Antarctic Treaty System. The Antarctic Treaty System includes the Antarctic Treaty and

[1] The paper also benefitted from comments provided by Dr. Didem Algantürk Light, Ilker Basaran and Peter Cullen.

[2] For the purpose of this paper, Antarctica is the area south of 60° South Latitude.

related agreements, such as the Protocol on Environmental Protection to the Antarctic Treaty (the **Protocol**).[3]

The Protocol seeks to provide "comprehensive protection of the Antarctic environment and dependent and associated eco systems".[4] In furtherance of that objective, in 2005 the Antarctic Treaty Consultative Parties adopted Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty[5] (the **Liability Annex**), specifically to require the establishment of contingency plans and provide for prompt and effective response to environmental emergencies in the Antarctic.

However, despite being some 13 years in the making, and now almost 17 years since its adoption, the Liability Annex is yet to enter into force.[6] Even once the Liability Annex comes into force, there is uncertainty over the interplay of shipowners' rights and obligations under various International Maritime Organization (**IMO**) regimes, including whether liabilities created under the Liability Annex are subject to global limitation of liability regimes (such as the 1976 Convention on Limitation of Liability for Maritime Claims and the 1996 Protocol thereto (**LLMC**)).[7]

This paper assesses the interplay between the different international legal frameworks that might govern the allocation of responsibility, liability, and compensation in the event a ship-sourced casualty causes environmental damage in Antarctic waters.

It first provides an overview of the IMO conventions and the legal status of Antarctic waters before considering the application of existing IMO liability instruments in Antarctic waters and the measures to protect the environment under the Antarctic Treaty System. It then analyses in more detail some practical questions around the operation of the Liability Annex, in particular its relationship with the LLMC, and what that means for a shipowner's obligations and liability for an environmental emergency in Antarctic waters, both now and when the Liability Annex enters into force.

It concludes that international conventions developed through the IMO creating liability for ship-sourced pollution damage offer little assistance for incidents in Antarctic waters, due to the geographic limits on their definition of pollution damage or obligations. This means that until the Liability Annex comes into force, there is a legal vacuum of internationally agreed rules governing obligations, liabilities, or compensation for ship-sourced pollution casualties in Antarctic waters.

Arguably the position will not greatly improve once the Liability Annex comes into force. In part, this is because the liabilities are limited to the costs of responding to an environmental emergency and impose no liability for other types of damage or loss that may follow an incident. Of greater concern is the significant risk of inconsistency under the Liability Annex in the standards that State Parties might impose on their operators, or in determining what is a

[3] The Protocol on Environmental Protection to the Antarctic Treaty (opened for signature on 4 October 1991 and entered into force on 14 January 1998).

[4] The Protocol on Environmental Protection to the Antarctic Treaty, above n 2, Article 2.

[5] Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty (adopted at the 28th Antarctic Treaty Consultative Parties in Stockholm, 2005).

[6] The Liability Annex will enter into force once it has been approved by all required Antarctic Treaty Consultative Parties (**ATCP**), being all 28 ATCP at the Antarctic Treaty Consultative Meeting in 2005 in Stockholm. As of 2 August 2023, 19 of the required 28 Consultative Parties had approved the Liability Annex.

[7] The 1976 International Convention on the Limitation of Liability for Maritime Claims (**LLMC**) was adopted by the International Maritime Organisation in 1976 and entered into force internationally in December 1986. The convention was later amended by the LLMC Protocol, which entered into force internationally on 13 May 2004.

reasonable response in Antarctic waters, and whether a shipowner's right to limit liability is governed by the Liability Annex or the LLMC.

The authors suggest that the IMO, as the competent organization, is best placed to bridge the current gap on liabilities and compensation, potentially through a protocol to extend existing IMO liability conventions to apply in Antarctic waters. But the Antarctic treaty process can still serve a useful purpose for maritime emergencies in Antarctic waters by deploying the co-operation that underpins the regime towards planning for a State led response capability in Antarctic waters, with a sustainable funding system.

IMO Conventions

The maritime community has the dubious privilege of being well experienced in responding to shipping casualties and dealing with the associated issues of ship-sourced environmental damage. The *Titanic*, the *Torrey Canyon*, *Exon Valdez*, the *Erika*, *Prestige*, *Tricolour* and *Costa Concordia* are just some of the names etched in the collective memory of the maritime industry.

In response, the IMO has developed a broad framework of instruments that seek to minimize the risk of a casualty and/or pollution damage through ship design and/or operational means, to plan how to prepare for a potential casualty and its consequences, and to deal with a casualty that has occurred.

The IMO conventions set minimum standards for the construction, design and equipment of ships, and require systems for safety, security[8] and prevention of pollution,[9] agree search and rescue co-ordination,[10] deal with salvage,[11] and impose obligations on States to have measures in place to prepare, respond and co-operate (either nationally or with other countries) when dealing with pollution incidents.[12] There are agreed rights for States to take measures on the high seas to protect coastal interests[13] and a suite of international conventions governing liability and compensation for pollution damage from oil tankers,[14] bunker oil,[15] and (though

[8] International Convention for the Safety of Life at Sea (**SOLAS**), 1974 (adopted 1 November 1974; entered into force 25 May 1980).
[9] International Convention for the Prevention of Pollution from Ships (**MARPOL**), 1973, as modified by the Protocol of 1978 relating thereto and by the Protocol of 1997 (entered into force 2 October 1983).
[10] International Convention on Maritime Search and Rescue (**SAR**) (adopted 27 April 1979; entered into force 22 June 1985).
[11] International Convention on Salvage (adopted 28 April 1989; entered into force 14 July 1996).
[12] International Convention on Oil Pollution Preparedness, Response and Co-operation (**OPRC**), 1990 (adopted 30 November 1990; entered into force 13 May 1995) and Protocol on Preparedness, Response and Co-operation to pollution Incidents by Hazardous and Noxious Substances (**OPRC-HNS Protocol**), 2000 (adopted 15 March 2000; entered into force 14 June 2007).
[13] International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969 (adopted 29 November 1969; entered into force 6 May 1975) and the Protocol relating to Intervention on the High Seas in Cases of Marine Pollution by Substances other than Oil (adopted 1973; entered into force 1983).
[14] International Convention on Civil Liability for Oil Pollution Damage (**CLC**) (adopted 29 November 1969; entered into force 19 June 1975); Replaced by 1992 Protocol (adopted 27 November 1992; entered into force 30 May 1996).
[15] International Convention on Civil Liability for Bunker Oil Pollution Damage (adopted 23 March 2001; entered into force 21 November 2008).

yet to enter into force) hazardous and noxious substances (**HNS**),[16] as well as the risk to safety of navigation and pollution from wrecks.[17][18]

The practical operation of the IMO regimes is facilitated by a certification regime, that enables both Flag State and Port State control measures to verify compliance.[19]

The purpose of the liability and compensation conventions is to create a uniform international regime that defines the specific scope of liability imposed, makes that liability strict (subject only to limited exceptions), and ensures that there is sufficient financial security available to meet the compensation required to cover the liability imposed, and requires evidence of such security.

Originally the impetus was the effect of pollution on the interests of coastal states: primarily concerned with the costs of clean up, but increasingly responding to the economic impact of pollution damage and recognizing the importance of environmental remediation. The IMO liability and compensation regimes are supported by Protection and Indemnity Clubs (**P & I Clubs**),[20] not only by the availability of insurance for liabilities, but through the experience and practice in dealing with and managing shipping casualties and resulting claims around the world.

For liability conventions, in addition to requiring a certificate as evidence of holding the appropriate financial security, there is provision for a direct right of action against the party providing that financial security (to avoid the risk of an impecunious shipowner) and provisions to address the recognition and enforcement of judgements amongst State Parties.

Equally, the right to limit liability is a long-established feature of maritime law. Limitation gives a shipowner (and certain defined others)[21] a right to limit their liability for maritime claims up to a maximum sum, determined by reference to the tonnage of the ship, regardless of the actual amount of the claim arising.

Where liability exceeds the limitation amount, claims are paid on a *pro rata* basis. Although the concept of limitation is not without criticism, one practical advantage is certainty about financial liability and ensuring the availability of insurance coverage.[22]

---

[16] International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (**HNS**), 1996 (and its 2010 Protocol) (adopted 3 May 1996; Not in force); superseded by 2010 Protocol (adopted 30 April 2010; Not yet in force).

[17] Nairobi International Convention on the Removal of Wrecks (adopted 18 May 2007; entered into force 14 April 2015).

[18] While not pollution related, for completeness there is also a convention dealing with the liabilities that arise from carrying passengers and their luggage by sea: Athens Convention relating to the Carriage of Passengers and their Luggage by Sea (**PAL**) (adopted 13 December 1974; entry into force 28 April 1987) and its 2002 Protocol (adopted 1 November 2002; entered into force 23 April 2014).

[19] See for example, UNCLOS Articles 217 & 218; SOLAS Chapter 1, Regulations 12 & 19; MARPOL Articles 5 & 6; Bunkers Convention above n 14, Article 7(5) &(9).

[20] P & I Clubs are mutual associations whereby shipowners mutually assure each other of indemnity (subject to P & I Club Rules) against third party liabilities, as compared to traditional insurance provided by a third party. Shipowners initially developed mutual clubs to cover risk relating to hull and machinery when traditional insurance cover was difficult to obtain. P & I Clubs developed in response to those risks not covered by hull insurance.

[21] Including salvors, charterers and insurers: see LLMC above n 6, Article 1.

[22] For maritime claims, the establishment of a limitation fund also provides a measure of protection against enforcement of a claim against other assets; LLMC Article 13, above n 6.

While the relationship between the various IMO liability conventions and the right to limit liability under the 1976 LLMC and its 1996 Protocol is somewhat less uniform, shipowners (and the insurance market) maintain a high degree of certainty over their financial exposure.

The international conventions adopted by the IMO are born of experience, well understood, and supported by entire industries and organizations, both public and private, and domestic and international in nature. How these existing IMO instruments apply in Antarctic waters, given its unique legal status, and are affected by, or interact with, other international regimes is of practical significance. The desire for uniformity and harmonization sits at the core of international maritime law.

Legal Status of Antarctic Waters

Antarctica is the only continent without a recognized sovereign state or native human population. There are different views as to the legal status of Antarctica, and whether it is even open for territorial claims. Seven countries have made territorial claims to the continent,[23] but these claims are not recognized by any government in the international community save for the claimants themselves, and three of the claimants do not recognize the lawfulness of each other's claim.[24] Some territorial claims overlap and only 15 percent of the Antarctic continent is unclaimed.

Antarctic Claims

States have made claims based on title including occupation through establishment of scientific bases, discovery, geographical proximity, and proclamations of sovereignty.[25] Opponents say these legal theories are largely unsuitable for Antarctica; effective occupation is inherently ill-suited to Antarctica as possession must be actual, continuous, and useful, and discovery does not assist in determining competing claims or the geographical limit of a claim.[26]

The lack of an indigenous population together with competing territorial claims, and an active scientific interest in Antarctica, gave rise to the 1959 Antarctic Treaty (the **Antarctic Treaty**).[27] The purpose of the Treaty was to ensure that Antarctica would be used for peaceful purposes only, to encourage freedom of scientific investigation and cooperation, and exchange scientific observation and results between the Parties. The negotiations were led by the 12 original signatories to the Treaty,[28] being countries whose scientists had an active interest in the Antarctic region at the time. This included those seven countries which had asserted territorial claims over Antarctica, as well as the USSR, the United States of America (who reserved their rights), Belgium, Japan, and South Africa.

There are now 54 State Parties to the Antarctic Treaty. State Parties are distinguished between Consultative and Non-Consultative Parties. In addition to the initial signatory states, acceding

[23] Argentina, Australia, Chile, New Zealand, France, Norway, and the United Kingdom. Russia and the United States of America have reserved the right to make territorial claims.
[24] Chile, Argentina, and the United Kingdom. See Christopher C Joyce "Antarctica and the Law of the Sea" (Martinus Nijhoff Publishers, Dordrecht, The Netherlands, 1992), p. 75.
[25] See generally, Federica Mucci & Fiammetta Borgia "The Legal Regime of the Antarctic", in David Joseph Attard (ed) IMLI Manual of International Maritime Law, Volume 1, The Law of the Sea, (Oxford University Press, Oxford 2014); and also Mario Oyarzabal, "The Legal Regime of Antarctica", CMI Presentation, 2018.
[26] Linda A. Malone, "The Waters of Antarctica: Do They Belong to Some States, No States, Or All States?", 43 Wm. & Mary Envtl. L. & Poly Rev. 53 (2018), http://scholarship.law.wm.edu/wmelpr/vol43/iss1/3.
[27] The Antarctic Treaty (opened for signature 1 December 1959; entered into force in 1961).
[28] Argentina, Australia, Chile, New Zealand, France, Norway, United Kingdom, USSR, United States of America, Belgium, Japan, and South Africa.

States will be regarded as Consultative Parties if they have carried out established scientific research. Only Consultative Parties have decision-making powers.

A core component of the Antarctic Treaty is Article IV, often referred to as the 'agreement to disagree.' Article IV effectively pauses historic territorial claims while prohibiting new claims to territorial sovereignty.[29]

While this solution under the Antarctic Treaty system has allowed cooperation between countries to conduct scientific and other peaceful activities in Antarctica, it does not provide a permanent legal solution to the question of territorial claims or resolve the question of Antarctica's legal status. These territorial claims have merely been "frozen" and could resurface at any time should a party to the Antarctic Treaty wish to rekindle its claim.[30]

Antarctic Waters

The continuing uncertainty on the legal status of the territory of Antarctica extends to the status of Antarctic waters. The Antarctic Treaty itself does not offer much assistance, providing only that the provisions of the Treaty shall apply to the area south of 60º South Latitude, including all ice shelves, and that "nothing in the present Treaty shall prejudice or in any way affect the rights, or the exercise of the rights, of any State under international law with regard to the high seas within that area".[31]

Consequently, the legal status of Antarctic waters depends on the view taken of the relationship between the Antarctic Treaty system and the law of the sea (including at the time of the Antarctic Treaty and developments since), and the validity of assertions of a territorial sea, exclusive economic zone, or continental shelf by claimant States.

The issues and arguments are varied and beyond the scope of this paper. But by way of brief illustration, under the 1982 United Nations Convention on the Law of the Sea (**UNCLOS**),[32] a coastal State has rights to the adjacent territorial sea, contiguous zone, exclusive economic zone (**EEZ**) and extended continental shelf. However, most countries dispute the existence of any coastal State in Antarctica, and consequently reject the idea that a maritime zone can be claimed by any State.

Claims to a territorial sea themselves do not breach the "agreement to disagree clause", as the right to claim a territorial sea was recognized under customary international law before both UNCLOS and the Antarctic Treaty. However, at the time of the adoption of the Antarctic Treaty, recognition of a territorial sea was less than 12 nautical miles (**nm**),[33] and the EEZ was

[29] Article IV in full states: "No acts or activities taking place while the present Treaty is in force shall constitute a basis for asserting, supporting, or denying a claim to territorial sovereignty in Antarctica or create any rights of sovereignty in Antarctica. No new claim, or enlargement of an existing claim to territorial sovereignty in Antarctica shall be asserted while the present Treaty is in force."

[30] Jill Grob, "Antarctica's Frozen Territorial Claims: A Meltdown Proposal". 30 B.C. Int'l & Comp L Re. 462 (2007).

[31] Antarctic Treaty, above n 26, Article VI.

[32] United Nations Convention on the Law of the Sea (Montego Bay, opened for signature 10 December 1982; entered into force 16 November 1994).

[33] Prior to UNCLOS Article 3, specifying the right to a territorial sea up to 12 nautical miles (**nm**), the breadth of the territorial sea had been described by reference to the 'power of arms' or the 'canon shot rule,' consistent with its origin as a 'buffer' zone to protect a coastal State. By the 19th Century, it was generally accepted as extending up to 3 nm. See Kevin Aquilina, "Territorial Sea and the Contiguous Zone", in David Joseph Attard (ed), IMLI Manual of International Maritime Law, Volume 1, The Law of the Sea, (Oxford University Press, Oxford 2014).

not a concept. Even if a maritime zone might be theoretically possible, practical issues around its delineation in Antarctic waters arise.[34]

Suggestions that the Antarctic Treaty system operates as an objective regime giving the waters a special legal status raises questions as to the ability of a limited number of States to determine the scope and content of international obligations and impose these on other States (including non-State parties). Alternatively, while a "common heritage of mankind" concept has been explored (in that no State can appropriate, or make sovereign claims over, the area governed by the principle), there is uncertainty over its content and therefore its ability to impose obligations.

In practical terms, the consequence of such opposing views means that Antarctic waters may be regarded variously as:

1. Part of the high seas.
2. Of special legal status.
3. Part of a territorial sea.
4. Part of the EEZ of a claimant State.

Notwithstanding the position under international law, States may still implement domestic legislation to reflect their internal position. For example, Australia implemented amending legislation in 1994 to delineate its EEZ and produces maps and charts with the Australian Antarctic Treaty EEZ shown.[35]

Ultimately, as things currently stand, there are no recognized maritime zones established by any States, and any maritime zone claim asserted by a State over Antarctic waters, will likely be disputed.

This highlights the challenges that may result if there are no internationally agreed rules governing obligations, liability, and compensation for ship-sourced pollution casualties in Antarctic waters. So, what exactly has been agreed by the international community?

Application of IMO liability conventions to Antarctic waters

This paper considers two IMO conventions most relevant to the types of ship-sourced marine pollution likely to occur in Antarctic waters as a result of a shipping casualty.[36] Namely, those that deal with pollution from the oil used to fuel the vessel - The International Convention on Civil Liability for Bunker Oil Pollution Damage 2001 (**Bunker Convention)**[37] - and that impose obligations for dealing with the wreck itself - The Nairobi International Convention on the Removal of Wrecks 2007 (**Wreck Convention**).[38]

[34] For example, practical problems include determining what is the baseline where the coast is formed by potentially unstable ice and ice shelves, and the problem of resolving overlapping claims. See Federica Mucci & Fiammetta Borgia, above n 24.

[35] Dodds, Klaus J "Sovereignty watch: claimant states, resources, and territory in contemporary Antarctica" Polar Record 47 (3) at 231-243.

[36] The carriage of Heavy Fuel Oil (**HFO**) in Antarctica is prohibited by MARPOL so the Civil Liability Convention and Fund Convention are unlikely to be triggered.

[37] Above n 14.

[38] Above n 16.

The Bunker Convention provides a liability regime for pollution damage caused by spills of oil when carried as fuel in ships' bunkers. It establishes strict liability for the shipowner for pollution damage. Pollution damage being defined under the convention to mean:[39]

> loss or damage caused outside of the ship by contamination resulting from the escape or discharge of bunker oil from the ship, wherever such escape or discharge may occur, provided that compensation for impairment of the environment other than loss of profits for such impairment shall be limited to the costs of reasonable measures of reinstatement actually undertaken or to be undertaken; and
>
> the costs of preventive measures and further loss or damage caused by preventive measures.

Preventive measures are further defined to mean "any reasonable measures taken by any person after an incident has occurred to prevent or minimize pollution damage".[40]

Meanwhile, the Wreck Convention imposes obligations and rights in relation to wrecks that constitute a hazard and have the potential to affect adversely the safety of navigation or result in major harmful consequences to the marine environment or related interest of one or more States. This includes a range of interests of a coastal State, from coastal, port and fisheries activities, to tourist attractions and other economic interests, and the health of the coastal population, including conservation of marine living resources and wildlife.[41]

The Wreck Convention makes shipowners strictly liable for the costs of locating, marking, and removing a wreck that is a hazard. The onus to remove the wreck is on the registered owner, but there are also options available for the State affected by the wreck should the registered owner not cooperate or is unable to be contacted.

Under both conventions, shipowners are strictly liable for their obligations subject to only limited exceptions. Shipowners are required to have insurance or provide other financial security to cover liabilities up to a limit consistent with the LLMC (and to have evidence of such insurance/financial security), and there is a direct right of direct action against insurers.

Neither the Bunker Convention nor the Wreck Convention contain their own limits of liability,[42] but a shipowner's liability under either regime remains subject to the shipowner's right to limit liability under any applicable national or international regime, such as the LLMC.[43]

In terms of existing IMO conventions, in the event of a shipping casualty in Antarctic waters, the consequences of that casualty on the Antarctic environment are most likely to include the types of liabilities imposed on shipowners under the Bunker and Wreck conventions.

Whether these two conventions apply in Antarctic waters will inform the scope of liabilities imposed on a shipowner in the event of an incident in Antarctic waters both now, and when the Liability Annex comes into force.

Scope of Application

Both the Bunker Convention and the Wreck Convention establish obligations and liabilities by reference to maritime zones or other geographical reference points.

---

[39] Bunker Convention, above n 14 at Article 1(9).
[40] Bunker Convention, above n 14, Article 1(7).
[41] Wreck Convention, above n 16, Article 1(6).
[42] Compared to CLC above n 13 and HNS (albeit yet to enter into force) above n 15.
[43] Bunker Convention, above n 14, Article 6; Wreck Convention, above n 16, Article 10(2).

Although the Bunker Convention establishes liability for pollution damage (defined above), Article 2 sets out its 'scope of application' and goes on to say:

> "This convention shall apply exclusively;"
>
> (a) to pollution damage caused:
> (i) in the territory, including the territorial sea, of a State Party, and
> (ii) in the exclusive economic zone of a State Party, established in accordance with international law, or, if a State Party has not established such a zone, in an area beyond and adjacent to the territorial sea of that State determined by that State in accordance with international law and extending not more than 200 nautical miles from the baselines from which the breadth of its territorial sea is measured.
> (b) to preventive measures, wherever taken, to prevent or minimize such damage.

Similarly, the Wreck Convention gives rights to States to take measures in relation to wrecks that pose a hazard in the 'Convention area' which is defined as:[44]

> The exclusive economic zone of a State Party, established in accordance with international law or, if a State Party has not established such a zone, an area beyond and adjacent to the territorial sea of that State determined by that State in accordance with international law and extending not more than 200 nautical miles from the baseline from which the breadth of its territorial sea is measured.

The Wreck Convention also has an 'opt in' provision for a State to apply the convention terms to wrecks in its territorial sea. The difference in the Wreck Convention's treatment of the territorial sea and EEZ reflects the tension between the desire for uniformity and commercial certainty, and the recognition of the sovereign rights that States have within their territorial sea. Unlike other maritime zones, States do not generally require an international convention to establish rights or impose obligations on those who voluntarily submit to its jurisdiction.

The reference to 'the territory', the 'territorial sea of a State Party' and the 'exclusive economic zone' is a reference to a maritime zone. While not defined further within those conventions, there is no question that the meaning of those terms will be the meanings as given under UNCLOS, reflecting what is (now) customary international law. But, as discussed above, there is no recognized territorial sea or EEZ or equivalent in Antarctic waters.

There may be some argument that the reference to "an area 200 miles from the baseline" could mean something different than a defined maritime zone, as it does not require a specific declaration from a State.[45]

Even if that was so, the phrase is qualified by the words "established in accordance with international law". Given the conflicting views on the legal status of Antarctica, whether there can be a coastal State, or any delineation of a maritime zone, together with the 'freezing of new claims' under the Antarctic Treaty, there is no basis on which it can be said there is any 'generally accepted principle of international law' where a State can establish an area 200 miles from a baseline. The opposite is true. No State is likely to recognize any other State's assertion of a territorial claim, associated territorial sea, or any assertion of rights over a maritime zone (however defined) in Antarctica.

The cost of preventive measures under the Bunker Convention are expressly not subject to a geographical limit. Instead, the liabilities imposed (and defined) refer to "preventive measures, *wherever taken*," [emphasis added].[46]

---

[44] Wreck Convention, above n16, Article 1(1).
[45] *Cf* the establishment of the Exclusive Economic Zone (**EEZ**).
[46] Bunker Convention, above n 14, Article 1(7).

While the words "wherever taken" might suggest a possibility of providing no geographical limitation to where they are taken, the preventative measures must be taken 'to prevent or minimize *such damage'* [emphasis added].

In this context, it is suggested the principles of interpretation would require 'such damage' to refer to the 'pollution damage' as defined.[47] It follows, that for any liability to be imposed these preventative measures would need to be taken to prevent damage to a State Party's territory, territorial sea, or EEZ rather than, for example, a response to such damage occurring on the high seas but where there is no reasonable risk of pollution damage occurring in a State Party's territory, territorial waters or EEZ.

The result is that these two conventions will not impose liabilities for:

- pollution damage from bunker oil; or
- rights and obligation in relation to wrecks that pose a hazard

in Antarctic waters.[48]

This is not to say that the broader obligations under the Bunkers and Wreck conventions do not apply in Antarctic waters. There are no geographical restrictions on the general obligations under the Bunkers or Wreck conventions and State Parties must give effect to their requirements in accordance with the basic principle that the terms of the conventions are binding and must be performed in good faith.[49] Vessels that fall under the scope of such requirements and flying the flag of a State Party to either convention, and/or calling at the port of a State Party to either convention both before or after operating in Antarctica, will be required to comply with the Bunkers and Wreck conventions' financial security requirements.

From a Flag State perspective, such vessels would be required to maintain the financial security requirements and evidence such by means of a State issued Convention certificate when operating in Antarctic waters, even though the Conventions' other provisions would not then apply in the event of an incident in those waters.

Likewise, from a Port State control perspective, such vessels would be required to evidence such financial security when calling at the port of a State Party after or before operating in Antarctic waters and will therefore have such cover in place and evidence of such cover when operating in Antarctic waters.[50]

---

[47] Vienna Convention on the Law of Treaties (opened for signature 23 May 1969; entered into force 27 January 1980), Article 31(1): A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in light of its object and purpose.

[48] The very limited exception is in cases where a State Party to the relevant IMO convention has an Antarctic claim and has enacted national legislation that has the effect of implementing its obligations under the IMO convention in at least a portion of the Antarctic waters. This follows more as a matter of domestic law and policy and is likely to be a theoretical possibility rather than one that offers any real prospect of a pathway for liability and compensation. From a practical perspective, most State parties to the IMO conventions will not have claims to Antarctic waters and any attempt to enforce a liability in another jurisdiction on this basis would likely be resisted.

[49] Vienna Convention 1969, above n 46, Article 26.

[50] Reference is also made to Measure 4 (2004) - ATCM XXVII - CEP VII which recommends that Parties shall require those under their jurisdiction organising or conducting tourist or other non-governmental activities in the Antarctic Treaty Area, for which advance notification is required in accordance with Article VII(5) of the Antarctic Treaty, to demonstrate …. That adequate insurance or other arrangements are in place to cover any costs associated with search and rescue and medical care and evacuation.

Despite this, the evidence of financial security (and the direct right of action that accompanies it) provides no security in the event of an incident in Antarctic waters. To the extent it provides some measure of assurance for liabilities under the IMO conventions, those IMO conventions are irrelevant for the purpose of establishing liability and providing compensation in the event of a pollution incident in Antarctica.

Consequently, the measures to protect the environment under the Antarctic Treaty System become of particular importance.

Measures to Protect the Environment under the Antarctic Treaty System

The Protocol on Environmental Protection to the Antarctic Treaty

In the Preamble to the Protocol on Environmental Protection to the Antarctic Treaty (the **Protocol**) the State Parties refer to being "convinced" of both "the need to enhance the protection of the Antarctic environment and dependent and associated ecosystems" and "that the development of a comprehensive regime for the protection of the Antarctic environment and dependent and associated ecosystems is in the interest of mankind as a whole".

Under the Protocol, the Parties "commit themselves to the comprehensive protection of the Antarctic environment and dependent and associated ecosystems and hereby designate Antarctica as a natural reserve, devoted to peace and science".[51]

Towards this end, the Protocol establishes a Committee for Environmental Protection (**CEP**), whose functions include providing advice on the effectiveness of measures taken pursuant to the Protocol. This includes the need to update, strengthen or otherwise improve such measures, the need for additional measures,[52] and - relevant to the current discussion - procedures for situations requiring urgent action, including response action in environmental emergencies.[53]

To provide for prompt and effective response action to environmental emergencies in the Antarctic Treaty area, the parties to the Protocol agreed to establish procedures for immediate notification of, and co-operative response to, environmental emergencies and to develop processes in relation to emergency response actions.[54]

Reference to liability is dealt with at Article 16, and while the obligation is broad ("the Parties undertake 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"), rather than develop substantive rules and procedure within the Protocol itself, Article 16 provides for these to be developed through the development of additional annexures.[55]

---

[51] The Protocol on Environmental Protection to the Antarctic Treaty, above n 2, Article 2.

[52] Protocol on Environmental Protection to the Antarctic Treaty, above n 2, Article 12 ("including the need for additional Annexes where appropriate").

[53] Protocol on Environmental Protection to the Antarctic Treaty, above n 2, Article 12(1)(f).

[54] Protocol on Environmental Protection to the Antarctic Treaty, above n 2 Article 15.

[55] Under Article 9(1) of the Protocol, Annexes I-IV form an integral part of, and entered into force with, the Protocol, while Article 9(2) provided for additional annexures to be adopted and become effective in accordance with Article IX of the Antarctic Treaty. Article IX(4) of the Antarctic Treaty provides "The measures referred to in paragraph 1 of this Article shall become effective when approved by all the Contracting Parties whose representatives were entitled to participate in the meetings held to consider those measures".

Subsequently, Annex VI of the Protocol, titled Liability Arising from Environmental Emergencies (**Liability Annex**) was adopted.

The Liability Annex was negotiated over a 13-year period. It was adopted at the Twenty-eighth Antarctic Treaty Consultative Meeting (**ATCM**) in Stockholm in 2005 and will enter into force once it has been approved by all 28 ATCM who participated in that meeting.[56] Some 17 years later, that has yet to occur.

Nonetheless, understanding what the Liability Annex will (and will not do) if it enters into force is a necessary exercise to determine its interplay with existing rights and obligations in the maritime industry, and whether the goal of international uniformity and harmonization has been, or can be achieved, following entry into force of the Liability Annex.

The Liability Annex

The Liability Annex applies to "environmental emergencies" in the Antarctic Treaty area[57] that relate to scientific research programmes, tourism, and all other governmental and non-governmental activities for which advance notice is required under Article VII (5) of the Antarctic Treaty, including associated logistic support activities.[58]

"Environmental emergency" is defined in the Liability Annex as:[59]

> 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.

In broad terms, the Liability Annex encompasses three categories of obligations on State Parties by:

- prescribing requirements for preventative measures and contingency plans to reduce the risk of environmental emergencies and their potential adverse impacts;
- providing for specific action to be taken by the operator of the vessel or other State Party in the event of an incident; and
- imposing financial liability in the event of a failure to take such action.

It is helpful to briefly outline the key obligations under the Liability Annex before looking more closely at their content and implementation in practice.

<u>The Preventative and Contingency Measures</u>

Articles 3 and 4 of the Liability Annex require State Parties to ensure their operators undertake reasonable preventative measures or reduce the risk of environmental emergencies, which may include specialized equipment and structures, procedures, and training.

In addition, States must require operators to establish contingency plans for the purpose of assessing an incident, procedure to notify, identify and mobiles resources and response plans.

<u>Response Action</u>

If an environmental emergency arises from the activities of an operator, that operator is required to take prompt and effective response action.

---

[56] Protocol on Environmental Protection to the Antarctic Treaty, above n 2 Article 23, Environment Protocol.
[57] Liability Annex, above n 5, Article 1, see n 26, Antarctic Treaty Article VI.
[58] Liability Annex, above n 5, Article 1.
[59] Liability Annex, above n 5, Article 5.

"Response action" is further defined in the Liability Annex as:

> reasonable measures taken after an environmental emergency has occurred to avoid, minimize 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.

The term "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.

Liability for Costs of Response Action

The operator is liable for the costs of response action and preventative measures even if they were not at fault in causing the environmental emergency, with only limited exceptions.[60] Liability is strict liability.[61]

If the operator does not undertake prompt and effective response action, it becomes liable for the cost of the action it should have taken. Therefore, another party which undertakes the response action can directly pursue the operator for the cost of doing so.[62]

The Liability Annex also requires the operator to pay the costs of a response action even where no party undertakes it. In this scenario, the operator becomes liable for the cost of the response action that should have been taken.[63]

Where it is a State Operator who is liable, the costs are paid into a fund[64] which is maintained and administered by the Secretariat of the Antarctic Treaty.[65] For non-State operators, a State is obliged to ensure there is a mechanism under domestic law to require either payment to the Fund, or to the State Party. The State Party is then obliged to make the equivalent contribution to the Fund.[66]

Limitation of Liability

The Liability Annex incorporates a specific limitation of liability provision setting out the maximum amount for which each operator may be liable under Article 6 (1) or Article 6 (2).[67]

The limits under Article 9 distinguish between an environmental emergency arising from an event which does not involve a ship (a maximum liability of three million SDR), while for an environmental emergency arising from an event involving a ship, the Liability Annex provides limits of:

---

[60] Liability Annex, above n 5, Article 8(1).
[61] Liability Annex, above n 5, Article 6(3).
[62] Liability Annex, above n 5, Article 6(1).
[63] Liability Annex, above n 5, Article 6(2). In addition to the two different grounds for liability, there is also a distinction between taking action against a State Operator and a non-State Operator.
[64] Liability Annex, above n 5, Article 6(2)(a).
[65] Liability Annex, above n 5, Article 12 provides for the establishment of a fund, and provides for Parties to make a proposal to be reimbursed from the fund subject to certain criteria, and for the reasonable and justified costs incurred in taking response action.
[66] Liability Annex, above n 5, Articles 6(2)(b) and 7(3).
[67] Save that any right to limit liability is excluded where limited environmental emergency resulted from an act or omission of the operation which was committed with the intent to cause such emergency, or recklessly and with knowledge that such emergency would probably result: Liability Annex, above n 5, Article 9(3).

(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.

The Liability Annex expressly states that it does not affect the liability or right to limit liability under any applicable international limitation of liability treaty or the application of a reservation made under any such treaty to exclude the application of the limits therein for certain claims, provided the amounts are at least as high as provided by Article 9.

Exceptions

There are exceptions to liability. Article 8 (1) of the Liability Annex excludes an operator from liability under 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; [68] or
(d) an act of belligerency against the activities of the operator.

There is also an exclusion from liability for a State Party (or those acting under its authority) for any damage that arises from a response action, provided that the action taken was reasonable in the circumstances.[69]

Insurance and Financial Security

Operators are required to maintain adequate insurance or other financial security, such as the guarantee of a bank or similar financial institution, to cover liability for the costs of a response action, up to the limits contained in Article 9 of the Liability Annex.[70]

The Practical Issues for the Maritime Industry

What all of this means for the maritime industry, and the degree of protection afforded to the Antarctic environment in the event of an environmental incident involving a ship, requires a closer look at what the operation of the Liability Annex might look like in practice, including the relationship between the Liability Annex and existing rights and obligations under the IMO conventions.

Scope of the Liability Annex

At the outset there are gaps in the maritime activities that are covered. The Liability Annex does not capture emergencies that could arise from all activities in the Antarctic Treaty area. Environmental emergencies involving fishing vessels, for example, are excluded, as are emergencies involving other vessels exercising freedom of navigation unrelated to tourism or

[68] See below comment on the specific exclusion in the Liability Annex from an act of terrorism.
[69] Liability Annex, above n 5, Article 8(2).
[70] Liability Annex, above n 5, Article 11.

scientific activities.[71] Despite there being a mechanism by which the scope of the Liability Annex can be extended,[72] that would require consensus of all State Parties. The very consensus that could not be obtained at the time of its adoption.[73]

Additionally, despite Article 16 of the Environment Protocol requiring State Parties to elaborate "rules and procedures relating to liability for damage arising from activities taking place in the Antarctic Treaty Area", the liabilities that are actually imposed under the Liability Annex are far more limited in scope.

The liabilities are only in respect of the cost of any response action (being reasonable measures to avoid, minimize or contain the impact of the environmental emergency, discussed below), not damage to the Antarctic environment *per se*. This limited approach was a conscious decision during negotiations. State Parties elected not to pursue a single comprehensive regime, but instead take a step-by-step approach, seemingly concerned that the former would hinder the ability of the Liability Annex to enter into force.[74] This meant the Parties decided to start with a regime dealing with a response to environmental emergencies, whilst remaining committed to taking future steps to develop a comprehensive special liability regime that would fully meet the obligations under Article 16 of the Protocol.[75]

There are real and difficult questions around imposing liability for damage to the environment itself.[76] However, despite this, and despite what may have been seen as a pragmatic reason to take a limited approach, it is not clear why the negotiating parties did not look more to how the IMO conventions have dealt with questions of pollution damage.

Pollution damage was first defined in the CLC and Fund conventions, with the same definition adopted in the Bunkers Convention and largely carried over to the HNS Convention.[77] In addition, the International Oil Pollution Compensation (**IOPC**) Fund has developed guidelines to define more precisely what is and is not covered under those definitions, including practical guidance on the reasonableness of measures taken by any person after an incident has occurred to prevent or minimize pollution damage.[78] A similar approach is likely to be soon adopted in relation to the Bunkers Convention.[79] While that is only a guidance in terms of its legal effect, it reflects a practical step taken by member states directly related to the experiences of dealing with pollution incidents and the issues that arise.

As discussed below, part of the answer to the separate approach may be because the underlying obligation under the Liability Annex is to *respond* to an environmental emergency, with

---

[71] 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, 42.

[72] Liability Annex, above n 5, Article 13.

[73] Johnson M, above n 70, at 42.

[74] Johnson M, above n 70, at 38-39; also Voeneky, Silja and Addison-Agyei, Sange, "Antarctica", (2019) at 65,available at SSRN: https://ssrn.com/abstract=3369605 or http://dx.doi.org/10.2139/ssrn.3369605.

[75] Johnson M. above n 70, at 39.

[76] Such discussions are well beyond the scope of this paper, but traditionally, have involved wrestling with the question of who has suffered harm and how harm to the natural environment is quantified beyond remedial measures.

[77] HNS refers to and defines 'damage' rather than just 'pollution damage'. This reflects that HNS also covers loss of life (except for passengers) and personal injury. But its pollution-related liabilities are framed comparatively similar to the CLC and Bunkers conventions and include the same limitations relating to impairment of the environment and a similar definition of preventative measures.

[78] For example, Guidelines for presenting claims for environmental damage; Guidance for Member States; Guidelines for presenting claims in the Fisheries sector https://iopcfunds.org/publications/other-publications.

[79] The IMO Legal Committee is developing a Claims Manual for the 2010 Bunkers Convention through a formal correspondence group with the intention to finalise a text at the 110th IMO Legal Committee session in 2023.

liability for the costs a consequence of that failure. It may also reflect a conscious decision to try and reflect that the Antarctic environment is different, and that what is appropriate and necessary is deliberately not the same as in other contexts. Logically, however, this would suggest that the liability limits contained within the Liability Annex would be higher, and the scope of obligations and liabilities more extensive, than those contained in the corresponding IMO conventions. As will be seen, this is not the case.

This limited approach means the Liability Annex will not respond to any other loss or damage, including property damage, loss of profit from impairment to the environment, and, despite the environmental significance of Antarctica, it is far from clear that it imposes any liability for remediation of the Antarctic environment.

The specific exclusion from liability where an environmental emergency arises from an act of terrorism is also worth briefly commenting on.[80]

The question of liability when loss or damage has been caused by an act of terrorism and, in particular, the availability of insurance for such liabilities, was the source of much debate at the IMO in the context of the 2002 Athens Convention (that deals with the carriage of passengers and their luggage by sea) in the years immediately following the adoption of the Convention and the 9/11 attacks when the capacity of the war risk market was much reduced.

This was of relevance given that the P & I Clubs were not, and are not, primary war risk underwriters and, although there was an 'act of war' defence in the Athens Convention, it did not extend to acts of terrorism (unless the damage was wholly caused by an act or omission done with intent). The inclusion of a liability in respect to a terrorism generated event was seen as a departure from other liability regimes and raised very real challenges that threatened the entry into force of the 2002 Athens Convention.

A compromise solution was developed that involved an agreement from the insurance industry to make certain insurance available up to a specified amount, an IMO Reservation, recommending States make a reservation or declaration limiting liability for such risk to an amount consistent with the industry assurance, and agreed guidelines that set out how evidence of insurance through the issue of certificates should be dealt with.[81] Accordingly, the exclusion of any liability for terrorism as in the Liability Annex does not exist for carriers in relation to liabilities under the Athens Convention.

Whilst the risk of an act of terrorism in Antarctic waters is somewhat remote, the differing scope of liabilities is difficult to justify on a principled policy basis.[82] The compromise solution at the IMO highlights the adage that, "where there is a will, there is a way." But equally it highlights the risk when the workability of an international convention becomes dependent on subsequent ancillary measures. A very real risk for the Liability Annex, as the subsequent discussions demonstrate.

Who has the Obligation?

While the maritime industry is accustomed to liability being imposed on shipowners, the obligations to be imposed under the Liability Annex are on "operators." This reflects that the

[80] Liability Annex, above n 5, Article 8(1)(c).
[81] It should be noted that no similar approach was agreed for the Bunkers and Wreck conventions given that the financial exposure under these two regimes was much below the exposure under the Athens Convention.
[82] The exclusion is arguably a more precise and complete solution compared with the muddled, albeit necessary, approach that was agreed for the purposes of the Athens Convention.

potential environmental emergencies in the Antarctic are not limited to shipping casualties, or even emergencies at sea, but extend to other activities (and emergencies) on land.

An operator is the person who "organises activities to be carried out in Antarctic water",[83] but the Liability Annex does not further clarify what it means to 'organise activities.' To the extent the Liability Annex applies to specified activities in the Antarctic Treaty area for which advance notice is required under Article VII (5) of the Antarctic Treaty,[84] it may be thought that the person who gives the advance notice and prepares the Environmental Impact Assessment should be regarded as the person 'organising the activities' and therefore the operator. However, that is not expressed in the terms of the Liability Annex. Accordingly, there is scope for State Parties to have divergent views on this.

This issue, and whether there is a need for a uniform approach to be adopted by the State Parties, was raised by the International Group of P & I Clubs with the Antarctic Treaty States at the ATCM XL in Beijing in May 2017.

Logically, identifying in advance who the operator is for the purpose of the Liability Annex is essential to its effectiveness. The obligation to have preventative measures and contingency plans in place to reduce the risk of environmental emergencies and their potential adverse impacts, as well as insurance to cover any liabilities for response costs, requires steps to be taken *before* an environmental emergency occurs. This includes steps by the operator themself, and in turn, by the responsible State Party to ensure the operator has done what is required to be done.

It is feasible that in at least some cases, even where a vessel is operating in Antarctic waters or otherwise subject to the Protocol and Liability Annex, the shipowner did not organise the activities and may not be regarded as the operator and therefore not subject to the obligations or liabilities under the Liability Annex.[85] Even in these cases, how the obligations under the Liability Annex can be met in respect to the risks that arise from a ship will need to be considered and preferably agreed with some degree of co-ordination amongst the ATCM.

But what exactly does the Liability Annex require to be done?

---

[83] Liability Annex, above n 5, Article 2(c): "Operator" means any natural or juridical person, whether governmental or non-governmental, 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.

[84] Liability Annex above n 5, Article 1. Article VII(5) of the Antarctic Treaty provides that "Each Contracting Party shall, at the time when the present Treaty enters into force for it, inform the other Contracting Parties, and thereafter shall give them notice in advance, of (a) all expeditions to and within Antarctica, on the part of its ships or nationals, and all expeditions to Antarctica organized in or proceeding from its territory; (b) all stations in Antarctica occupied by its nationals; and (c) any military personnel or equipment intended to be introduced by it into Antarctica subject to the conditions prescribed in paragraph 2 of Article I of the present Treaty."

[85] For example, the Advance Notification form in New Zealand Procedures for Non-Governmental Visitors to Antarctica that is required to be completed in respect of Tourist and non-Governmental Activities differentiates between the Tour / Expedition Organizer and requires details of company name and registration (Section A) but only seeks the name of a vessel, its country of registration, and matters such as carrying capacity, fuel and so forth.

Content and Verification

The obligation to have preventative measures and contingency plans in place to reduce the risk of environmental emergencies and their potential adverse impacts immediately raises the question of:

1. the content of the obligations in relation to 'reasonable preventative measures' and contingency plans; and
2. verification of compliance of appropriate preventative measures, contingency plans, and insurance.

While the Liability Annex sets out the types of things that should be included when considering preventative measures or contingency plans, there are no mandatory requirements as to content, and the Liability Annex does not refer to any standard or measure by which the content of such measure or plan will be assessed or set out an express mechanism for assessment or approval.[86] Nor does the Liability Annex itself set out any measures for how compliance will be evidenced or verified.

Unlike the IMO regimes, the Liability Annex contains no provision for State certification to evidence the operator meeting any of their obligations under the Liability Annex and, it would seem, no discussions took place either at the ATCM Stockholm meeting in 2005 or in the lead up to the meeting for the inclusion of such provisions.

It is unclear if this was overlooked, or if this reflects a conscious desire of the States engaged in the negotiations of the Liability Annex to follow an approach that was markedly different to the IMO given the uniqueness of the Antarctic environment and the substantive underlying regulation that already existed within the framework of the Antarctic Treaty. While there could have been be some desire to avoid the administrative burden by a State certification process, it is unlikely that the number of vessels operating in Antarctic waters either at present or in the near future would reach the numbers of vessels covered by the IMO instruments and presently requiring an IMO Convention State certificate.

The Protocol does impose an overarching obligation on States to have a process to ensure compliance. Article 13 of the Protocol requires each party to "take appropriate measures within its competence, including the adoption of laws and regulations, administrative actions and enforcement measures, to ensure compliance". That might be a basis for a State to introduce administrative measures such as certification in its domestic law, but it does not resolve questions of uniformity or consistency between States or ensure the status of such administrative measures between States.

While any State from which a vessel may be departing for Antarctica would be unrestricted in its ability to exercise Port State jurisdiction,[87] unlike the IMO regimes it is not under any obligation to accept certification by a State under its domestic regime, highlighting further challenges in harmonization amongst the Antarctic Treaty States.

---

[86] Comparatively, where UNCLOS requires another operative standard for implementation, its provisions refer to matters such as "having regard to"; "taking into account"; "consistent with"; "generally accepted standards"; "applicable international instruments"; or "generally accepted international regulations, procedure and practices." See UNCLOS Arts 21(2), 21(4), 39(2), 22(3),60, 0, 94(3), 211 and 219. More generally, Gaetana Librando "The International Maritime Organisation and The Law of the Sea", in David Joseph Attard (ed) IMLI Manual of International Maritime Law, Volume 1, The Law of the Sea, (Oxford University Press, Oxford 2014).

[87] As a right of the coastal State, distinct from Port State Control provisions expressly provided for under IMO conventions SOLAS or MARPOL. See generally Molenaar, E "Port State Jurisdiction: Towards Comprehensive, Mandatory and Global Coverage" (2007) Ocean Development & International Law 38 at 225-257.

Unless there is uniformity between all State Parties as to agreed minimum standards of preventative measures or contingency plans for operators under their jurisdiction, the implementation of these measures will be variable as would be their effectiveness. Lack of prior agreement risks disputes as to whether State Parties have properly given effect to their own obligations under the Protocol.[88]

Preventative Measures

The obligation for preventative measures is one of the areas where there is a clear overlap between the Liability Annex and existing obligations on shipowners under the IMO regimes (SOLAS and MARPOL).

Under the Liability Annex, reasonable preventative measures are those designed to reduce the risk of environmental emergencies and their potential adverse impact and may include:[89]

(a) specialized structures or equipment incorporated into the design and construction of facilities and means of transportation;
(b) specialized procedures incorporated into the operation or maintenance of facilities and means of transportation; and
(c) specialized training of personnel.

Since January 2017, the IMO "Polar Code" has been in force.[90] The Polar Code sets out specific additional measures to be taken by ships operating in Arctic and Antarctic waters, covering design, construction, equipment, operational, training, search and rescue, and environmental protection matters.[91]

Issues of uniformity might be resolved if existing measures for ships, such as the Polar Code, were agreed as reflecting these Liability Annex requirements, if not in whole, then in part.

This idea should not be contentious. The IMO is "the competent international organization" under UNCLOS for many matters, including in respect to the safety of navigation and routing systems; the design, construction, equipment and manning of vessels; the prevention, reduction, and control of vessel-source pollution of the marine environment and dumping at sea.[92] All Consultative and Non-Consultative Parties to the Antarctic Treaty are also State Parties to the IMO conventions.

The Committee for Environmental Protections offers a potential mechanism for this. The terms of the Protocol provide that the Liability Annex forms an integral part of the Protocol and the functions of the Committee extend to providing advice on 'the effectiveness of measures taken

[88] Protocol, above n 2, Article 13. Also note Article 10 as regards 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."

[89] Liability Annex, above n 5, Article 3. As above the lack of mandatory measures adds a further challenge to determining compliance and effective enforcement even at a domestic law level.

[90] In recognition of the additional demands placed on ships that operate in polar waters (both the Arctic and Antarctic). The Polar Code imposes additional measures for safety, environmental protection and crew training for ships operating in those waters. Owners of relevant ships must hold a Polar Ship Certificate as evidence of compliance with the additional measures. The Polar Code is implemented through amendments to SOLAS, MARPOL and Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978.

[91] UNCLOS, above n 31, Annex VIII, Article 2.

[92] Implications of the United Nations Convention on the Law of the Sea,1982 for the International Maritime Organization, Study by the Secretariat of IMO,doc.LEG/MISC 1(1986); Law of the sea bulletin. no. 31, 1996 UN. Division for Ocean Affairs and the Law of the Sea (1996) at 79.

pursuant to this Protocol'.[93] It is not a perfect fit, but advice that the measures under the Polar Code are effective for the purpose of the Liability Annex would form a basis for a consensus and consistency in approach. Consistency will provide operators and shipowners with some degree of certainty over the obligations.

Contingency Plans

The importance of uniformity and generally accepted standards is particularly pressing in relation to the requirement to include within the contingency plan matters relating to response plans, mobilization of resources, and decisions around demobilization.

There is an obvious and inherent tension between Antarctica as a pristine environment, the protection of which is in the interest of mankind as a whole, and the practical realities of its remote geographical location and what that means for a response to any environmental emergency.

This reality is reflected in the obligations under the Liability Annex which variously provides:

- Response action means reasonable measures to avoid, minimize or contain the impact of the environmental emergency.
    - What is reasonable is:
        - a measure that is appropriate, practicable and proportionate;
        - will consider the technological and economic feasibility.
    - There is no absolute obligation to undertake clean up.
    - Response action *may* include clean-up costs in appropriate circumstances [emphasis added].

As set out earlier, the maritime community is well experienced in planning for and responding to shipping casualties and the associated issues of ship-sourced environmental damage. This includes established organizations who specialize in salvage operations, pollution response, and extends to experience in dealing with claims and determining what are (and are not) reasonable response costs.

But the context in Antarctica is very different. Key differences that follow from the unique geographic characteristics and remoteness of Antarctica include (but certainly are not limited to):

1. Resources.
2. Timing.
3. Effectiveness.

In simple terms, Antarctica is not home to the type of vessels or equipment that would ordinarily be deployed in response to a shipping casualty. A typical response would usually involve tugs and other craft, setting up an incident command center with monitoring and surveillance equipment, including aviation support. There may be systems to disperse or contain or transfer harmful substance from a stricken vessel, equipment for shoreline response (including the rescue, treatment and rehabilitation of wildlife) as well as offshore response.

Any response requires people. Antarctica does not have a significant permanent population, much less, trained specialist people.

[93] Protocol on Environmental Protection to the Antarctic Treaty, above n 2, Article 12(1)(a).

In any event, the effectiveness of a traditional response is questionable. Oil behaves differently in colder waters. Dispersants may be ineffective and unpalatable in such an environment. Wildlife response will likely be limited to shore-based wildlife.

Where appropriate equipment is identified and available to be deployed to Antarctica it will take time. Time during which a vessel may be incapable of being saved or salvaged. Time adds to cost.

While technological feasibility will have a relatively high objective assessment, what is proportionate or economically feasible involves a value judgement on the Antarctic environment.

Experience from international shipping casualties shows that what is reasonable or appropriate in a technical sense, is often not the same as what is expected, in the eyes of the public, or politicians.[94] That will only be enhanced in the Antarctic environment. The generally recognized intrinsic value of the Antarctic environment, the precautionary principle in international environment law, and the important role of Antarctica and increasing recognition of its importance in the global climate system, all weigh heavily in favour of action rather than inaction.

Absent agreed standards, the question of whether response action should be taken and, if so, what an appropriate response looks like, is ripe for contention given the competing considerations in Antarctic waters. In a post-incident environment in Antarctica, it is also possible that an appropriate response will be influenced more by societal and public pressure than the realities on the ground.

The Threshold Question

Determining a reasonable response in Antarctic waters is a critical threshold question. It is only when response action should have been taken, but was not, that liability for the actual or estimated cost of what should have been done, will arise. Importantly, liability for when an operator "should have taken prompt and effective response action but did not" covers three different circumstances:

- Where no response action had been taken;
- Where response action had been taken but it was not prompt; or
- Where response action had been taken but it was not effective.[95]

That is one of the fundamental differences between the Liability Annex and the IMO conventions. The obligation on an operator under the Liability Annex is to take "*prompt and effective response action to environmental emergencies arising from the activities of that operator*" in the first instance.

No such requirement is imposed on the shipowner (however defined) under the IMO instruments. IMO conventions are predicated on a coastal State rather than operator (shipowner) response and the State then seeking recompense under the IMO conventions from the liable party.

[94] The IOPC Fund guidelines for presenting claims for clean-up and preventative measures expressly acknowledge this, setting out that: "While it is understood that response organisations often find themselves compelled by political pressure and concerns expressed by the public and the media to adopt measures which are not technically reasonable, such actions are unlikely to qualify for compensation.".
[95] ATCM XXVIII Final Report at 109.

In most cases it will be the State taking action to respond to a pollution incident to protect its coastal interests and because of the lack of suitable and adequate third-party responders in most jurisdictions. Only a small number of States worldwide mandate that an operator or shipowner must contract with an approved spill response organisation for entry into port purposes (for example, the United States of America, China, and Argentina amongst others).

The benefit of imposing a response obligation on an operator is highly questionable given the further limitations on immediate access to third party responders in Antarctica, compounded by the challenges of a response in the Antarctic environment, referred to above. An effective response may also require the exercise of coercive powers, such as those expressly given to States in the IMO Conventions, such as the Intervention Convention and its Protocol[96] or that States may incorporate in domestic law.[97] Such powers are completely lacking for private operators.

While it might seem logical that the obligation to take response action will at least be informed by the response plans that have been prepared prior to the activity, that link is not express in the Liability Annex. Even where an 'appropriate' contingency plan is described, it may not be possible to implement, and/or there may be a perverse incentive on whether to implement a contingency plan where the actual costs will far exceed potential liability.

That creates an obvious gap as well as the potential for conflict between States, and between operators and States. A differing view may be taken by one or more other State Parties on the adequacy of contingency plans themselves (and immediately giving rise to an issue of uniformity or effectiveness).

The Liability Annex leaves open the prospect that during or after an event, an operator might reasonably conclude that it is not appropriate or necessary to act (and may make that decision consistent with its contingency plan).

It is however noted that Article 15 of the Protocol on Environmental Protection to the Antarctic Treaty establishes that each Party agrees to provide for prompt and effective response action in cases of environmental emergencies in the Antarctic Treaty area that might arise in the performance of scientific research programmes, tourism and all other governmental and non-governmental activities. On 28th January 1989, the passenger ship Bahia Paraiso ran aground and sank in the Southern Ocean. Eight hundred and thirty thousand litres of diesel fuel and oil leaked from the ship and, in accordance with the above, both the United States and Argentina shared the response costs to prevent and minimise the ship sourced pollution damage that occurred (http://www.antarcticmarc.com/bahia.html).

Limitations on Insurance & Financial Security

Where an operator has not done what it is agreed ought to have been done to respond to an environmental emergency, the question becomes, how effective are the mechanisms to ensure they pay what ought to be paid?

---

[96] Refer above n 12.

[97] For example, New Zealand's Maritime Transport Act 1994 ("MTA"), enables the Director to instruct the master of any New Zealand ship, or of any other ship within the internal waters of New Zealand or New Zealand continental waters, to render assistance to a ship that is a pollution risk and to assist in operations for clean-up (see section 248 MTA).

Insurance obviously cannot be obtained after the event. Where there is an obligation to hold appropriate insurance or financial security, the Liability Annex is silent on verification and evidence of compliance.

The general obligation on States under Article 13 of the Protocol to take appropriate measures to ensure compliance with the Liability Annex does impose an obligation on States to ensure that appropriate insurance is held by the operators.[98] But verification of insurance requires not just confirming that an insurance policy (or some other form of financial security) is in place but ensuring that the policy responds to the type of liability imposed, both in scope, financial amount and nature (strict liability).

Where a shipowner is the operator, and the shipowner holds cover with one of the P & I Clubs,[99] the P & I Clubs have indicated that cover should meet the liabilities under Article 6 of the Liability Annex.[100]

For other traditional third-party insurance policies, absent a bespoke product, a relatively sophisticated assessment will be needed. Contracts of insurance will typically include conditions and exclusion and other limits to cover, that will need to be carefully assessed against the triggers for indemnity before satisfaction of appropriate cover can be determined. Will States take a uniform approach to determining what insurance policies are acceptable?

Where a State has verified and determined that insurance is held by its operator, there is no mechanism in the Liability Annex to require an operator to carry or provide evidence of such insurance, unlike the IMO conventions.

Identification of the party providing relevant insurance or financial security - important in any recovery action - will depend on the administrative measures taken by a State to maintain a record of those details. Even where an operator might be calling at the Port of another State en route to Antarctic waters, there are no provisions for inspection or compliance by other State Parties. Compliance relies heavily on the effective implementation of the State Party of the operator, albeit in circumstances where the State will be liable for any failure to discharge that obligation.

That assumes that insurance has been required. Under the Liability Annex it is only mandatory for a State Party to *require* its operators to maintain insurance or other financial security, to cover liability under Article 6(1), to pay the costs of response action taken by Parties pursuant to Article 5(2).[101]

Whether a State Party imposes a requirement in relation to an operator liable to pay an amount of money, if action that should have been taken but was not (and no other party responded), is discretionary.[102] That distinction appears to have arisen from States' (particularly those with a federal system) concern that the liability under Article 6(2) is not linked to compensation for damage, and may be seen to have a punitive element.[103]

---

[98] In addition, Article 10 of the Liability Annex suggests the potential for 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).

[99] The International Group (**IG**) of P & I Clubs provide third party liability coverage for approximately 90% of the world's ocean-going tonnage: IG Paper to XLII Antarctic Treaty Consultative Meeting, Prague, 2018.

[100] IG Paper to XLII Antarctic Treaty Consultative Meeting, Beijing, 2017.

[101] Article 11(1) Liability Annex, above n 5.

[102] Article 11(2) Liability Annex, above n 5.

[103] Johnson M, above n 70 at 46; also Voeneky, Silja and Addison-Agyei, Sange, above n 73. at 79,available.

The potential for States to take vastly different approaches, with significant implications on the availability of insurance to cover any liability, is apparent.

By way of example, New Zealand has not implemented the financial security requirements into legislation. Instead, the obligation to have insurance or a financial guarantee to cover liability will be implemented by way of conditions imposed by the Minister in the environmental impact assessments required under the Protocol.[104] When insurance is required, and how it will be assessed as being suitable, has been left to a Ministerial discretion.

More critically, the Liability Annex does not provide a direct right of action against the insurer or limit the defenses that any person providing the insurance or financial security can call upon. As the P & I Clubs have alluded to, the consequence is that even where an operator may have appropriate insurance, and may demonstrate evidence of that insurance, there is no certainty the insurance will respond. Even if insurance is held, whether insurance will actually cover the liability will be dependent on its own terms and exclusions, and any defenses available to the insurer.

The Fund

The Liability Annex provides for a Fund to be established, in part to provide for the reimbursement of the reasonable and justified costs incurred by a Party or Parties in taking response action pursuant to Article 5(2).[105] The funding of the Fund is largely dependent on voluntary contributions, or the enforcement of certain liabilities.

The Liability Annex is silent on how such a fund is to be maintained, the governance of such a fund and its management.

The Fund is example where the Liability Annex has features similar to other maritime liability regimes but missed the opportunity to draw on the specific experience of the maritime industry. Funds are a familiar concept under IMO regimes, designed to provide a second (and sometimes third) tier of compensation. In the IMO context the fund itself has legal personality and is funded by levies from associated industries, with clear rules on the management of those funds and the applications for which they can be used.

Limitation of Liability

The limitation of liability provisions in the Liability Annex demand particular attention because of the 1976 LLMC and its 1996 Protocol.

As set out, the right to limit liability is a long-established feature of maritime law. Certainty around financial liability is an important element of ensuring the availability of insurance coverage. The LLMC represents the IMO's global limitation regime that stipulates the financial amounts that a shipowner can limit their liability for maritime claims.

---

[104] Section 10(1)(b) of the Antarctica (Environment Protection) Act 1994 Act provides that the Minister may "direct any person carrying out ... any activity" in Antarctica to "abide by such conditions as the Minister considers appropriate in order to avoid or minimise the effects of the activity on the Antarctic environment". The same mechanism will be used for preventative measures and contingency plans. See explanatory note to Antarctica (Environmental Protection: Liability Annex) Amendment Bill at https://www.legislation.govt.nz/bill/government/2009/0037/latest/DLM2051601.html.

[105] Article 12(1) Liability Annex, above n 5.

While the Liability Annex contains its own maximum amount for which each operator may be liable under Article 6(1) or Article 6(2), it also preserves the limitation of liability provisions under other limitation regimes, provided the limitation amount is at least as high as the limits provided under the Liability Annex. Given the long-standing recognition of limitation rights for maritime claim, what this means in practice has real world relevance.

The question for operators and insurers (for liability purposes) and for third parties (for recovery purposes) will be the same: What will be the applicable limit of liability in the event of an environmental emergency in Antarctic Waters? Will it be determined by the limits in the Liability Annex or by the LLMC (or a combination of both)?

The objective of international conventions is to provide for a relatively uniform and consistent response to such a question. In reality, the drafting of the Liability Annex means the answer will be "it depends". It will depend on:

1. whether claims under the Liability Annex are claims that are subject to the LLMC;
2. the relationship between the Liability Annex and the LLMC;
3. the extent to which the provisions of the Liability Annex can properly control limitation actions; and
4. ultimately, how national laws or national courts determine such matters.

Are claims under the Liability Annex claims that are subject to the LLMC?

A question on the relationship between the Liability Annex and LLMC assumes that a claim made against a shipowner (as operator) under the Liability Annex is a claim that is subject to limitation under LLMC. That assumption warrants testing.

There is a key difference between the Liability Annex and the LLMC. While the Liability Annex imposes a liability for response costs, the LLMC, deals only with the question of limitation. Whether or how any liability arises is a separate question.[106]

The claims subject to limitation under the LLMC are set out at Article 2(1):

> (a) Claims in respect of loss of life or personal injury or loss of or damage to property (including damage to harbour works, basins and waterways and aids to navigation), occurring on board or in direct connection with the operation of the ship or with salvage operations, and consequential loss resulting therefrom;
> (b) Claims in respect of loss resulting from delay in the carriage by sea of cargo, passengers or their luggage;
> (c) Claims in respect of other loss resulting from infringement of rights other than contractual rights, occurring in direct connexion with the operation of the ship or salvage operations;
> (d) Claims in respect of the raising, removal, destruction or the rendering harmless of a ship which is sunk, wrecked, stranded or abandoned, including anything that is or has been on board such ship;
> (e) Claims in respect of the removal, destruction, or the rendering harmless of the cargo of the ship;

[106] The introduction of the IMO conventions establishing liability for certain matters, raised questions of the right to limit for those liabilities, and more specifically the relationship to the right to limit under the LLMC. The relationship between the LLMC and each of the IMO liability conventions is not uniform. As indicated above, claims for oil pollution under the CLC convention are expressly excluded. Claims for pollution damage under the HNS Convention are not excluded, but amendments under the 1996 Protocol added a second entitlement for States to make a reservation in relation to the HNS Convention (although it is not yet in force). The LLMC makes no express reference to the liabilities imposed under the other IMO conventions such as the Bunkers and Wreck conventions.

(f) Claims of a person other than the person liable in respect of measures taken in order to avert or minimize loss for which the person liable may limit his liability in accordance with this Convention, and further loss caused by such measures.

The LLMC expressly excludes from its application certain claims, which in simplified form, can be summarized as claims for salvage or contribution in general average, oil pollution damage under the CLC, nuclear damage, and those claims by master and crew that are subject to limitation under the contract of employment.[107]

Article 18 of the LLMC, also enables States to make limited reservations: one in respect of Article 2(1)(d) and (e)[108] and the other in respect of claims for damage within the meaning of the HNS Convention.[109]

The test for whether any liability established by a convention is a liability subject to the LLMC, requires assessing the nature not the basis of the claim.[110]

This is the approach taken in respect to liabilities under the Bunkers Convention. Article 2 of the LLMC does not refer to claims for environmental liabilities generally, or expressly refer to claims for pollution damage or for claims under the Bunkers Convention, by name. But the nature of such claims is widely regarded as falling within the LLMC (reflected in part by the reference to the LLMC at Article 6. Usually under Article 2(1)(a) or 2(1)(d) – a claim occurring in direct connection or with the operation of the ship or the rendering harmless of anything that is or has been on board such a ship or in respect of the raising of a ship which is sunk.[111]

Similarly, the nature of claims for liabilities arising under the Wreck Convention are claims relating to the raising, removal, destruction, or the rendering harmless of a ship which is sunk, wrecked, stranded, or abandoned, including anything that is or has been on board such ship[112] or claims in respect of the removal, destruction, or the rendering harmless of the cargo of the ship.[113] As discussed below, whether such claims are subject to limitation depends on whether a State has exercised its right to make a reservation in respect to such claims.

Unless otherwise excluded, any claim within Article 2 of the LLMC will be subject to the right to limitation "whatever the basis of liability may be".[114]

There is nothing in the LLMC to limit the claims to which it applies geographically (i.e., the incident that has given rise to the claim does not need to have occurred in the waters of the

[107] LLMC above n 6, Article 3.

[108] The law on limitation of liability was used to distinguish between liability for damages (subject to the right to limit liability) and those liabilities that arose as a due debt, such as where costs and expenses had been incurred by public authorities in the exercise of statutory powers (*The Stonedale No. 1* [1956] A.C.1). This protected public authorities who had incurred costs to remove wrecks that were a hazard to navigation from limitation. The 1976 LLMC removed this distinction with Article 2 applying to the specified claims "whatever their basis of liability may be". But the 1976 LLMC also provided for a State to make a reservation to preserve the common law position on limitation for dealing with wrecks.

[109] The relationship between the LLMC and HNS Convention was the subject of much debate during negotiations on the 1996 LLMC Protocol and HNS Convention, including whether the limit should be 'linked' to the LLMC or be a standalone limitation within the HNS Convention. The debate from the Committee of the Whole on 1 May 1996 indicates the decision to provide for a reservation under Article 18 of the LLMC rather than an exclusion under Article 3 of the LLMC was a matter of pragmatism in reaching the same intended effect rather than a particular policy decision (see Travaux Preparatoires of the LLMC 1976 and of the Protocol 1996 at 504 and 505).

[110] *Caspian Basis* [1997] 2 Lloyd's Rep 507 at 522 per Rix J (later approved by Court of Appeal [1998] 2 Lloyds Rep 461, p 473).

[111] *The Aegean Sea* [1998] 2 Lloyds rep 39 per Thomas J (albeit obiter dicta) and APL Sydney [2009] FCA 1090.

[112] Article 2(1)(d) LLMC, above n 6.

[113] Article 2(1)(e) LLMC, above n 6.

[114] Article 2(1), LLMC, above n 6.

LLMC State), and its potential application to liabilities that might arise in Antarctic waters was clearly recognized by the Antarctic Treaty negotiating parties.[115]

Looking at the nature, not basis of the claim, it is difficult to be exhaustive, but where response costs have been incurred, the nature of a claim comfortably fits within the LLMC, as the actions taken are likely to fall within one or more of the Article 2 claims:

- Damage to property occurring on or in direct connection with the operation of the ship and consequential loss resulting therefrom. (Article 2(1)(a) LLMC)
- Claims in respect of the raising, removal, destruction, or the rendering harmless of a ship which is sunk, wrecked, stranded, or abandoned, including anything that is or has been on board such ship. (Article 2(1)(d) LLMC)
- Claims in respect of the removal, destruction, or the rendering harmless of the cargo of the ship. (Article 2(1)(e) LLMC)
- Claims of a person other than the person liable in respect of measures taken to avert or minimize loss for which the person liable may limit his liability in accordance with this Convention, and further loss caused by such measures. (Article 2(1)(f) LLMC)

But there is an important consequence to how the nature of a liability under the Liability Annex is framed as a claim under the LLMC given that the Liability Annex also preserves reservations made under other treaties.[116]

If the nature of response costs (where action has been taken) are claims within Article 2(1)(d) and (e), then whether they fall within the LLMC may be determined by whether a State has made a reservation in relation to those matters and, if so, how that reservation has been framed or implemented in domestic law. An example (albeit in relation to pollution from bunker oil) is the Norwegian approach. The Norwegian Maritime Code provides that claims for bunker oil pollution clean-up costs are treated in the same way as wreck removal costs for which the reservation under the LLMC applies.[117]

This issue will be avoided if the nature of the claim for response costs under Article 6(1) is viewed as a claim within Article 2(1)(a) or (f). It is suggested that would be the better view.[118]

But neither of these clearly deal with the circumstances where no action has been taken, and liability is imposed under Article 6(2) for the estimated cost of response action that should have been taken but was not.

The fact such a claim may arise from a statutory liability does not prevent such a liability being subject to limitation under the LLMC. The philosophy of the changes to the LLMC (in particular to the basis of claims) was "to extend not restrict limitable claims."[119] Despite that philosophy the nature of such a claim under Article 6(2) does not sit comfortably within the scope of Article 2(1)(a) or (f). There have been no 'measures taken' and the application of

[115] Johnson M, above n 70 at 51. Earlier drafts of the Liability Annex referenced the LLMC by name, but the final text of the Liability Annex simply provided that notwithstanding the prescribed maximum amounts, the Liability Annex shall not affect the liability or right to limit liability under any applicable international limitation of liability treaty, provided that the applicable limits are at least as high as the limits set out in Article 9(2)(a)(ii).
[116] Liability Annex, above n 5, Article 9(2)(a)(ii).
[117] Norway applies its own separate limitation.
[118] The United Kingdom expressly provides that liability for the purposes of pollution damage arising from, and in response to, a spill of a ship's bunker fuel oil is claim subject to Article 2(1)(a) of the LLMC. See section 168 of the 1995 UK MSA. That only applies in relation to damage or the threat of damage in the territory of the United Kingdom.
[119] Aleka Mandaraka-Sheppard, *Modern Maritime Law and Risk Management* (2nd ed, Informa Law, London, 2009) p 879.

Article (2)(1)(a) still suggests there must have been some actual consequential loss suffered, even if a broad interpretation of property damage or damage to waterways is adopted.

Conversely, Article 2(1)(d), and (e) of the LLMC may not require an action to have taken place to form a claim. It could be enough to bring a claim within Article 2(1)(d) or (e) of the LLMC on the basis it is a claim in respect of a *failure* (for example) to remove or render harmless a ship which is wrecked, or anything that is or has been on board such ship including its cargo. But that brings us back to the question of a reservation.

This paper does not seek to resolve those issues. It simply highlights that the greater the scope for interpretation, the more likely implementation may differ in different jurisdictions.

Part of the issue rests with the LLMC itself, and the failure to expressly and clearly provide whether liabilities imposed under other conventions are claims subject to limitation, and therefore requiring States to interpret Article 2 of the LLMC and the nature of liabilities in each case.

That has always invited difficulties for casualty and pollution claims and how they should be defined in the absence of any reference to 'pollution', or 'environment' or 'contamination' or 'clean up'. That issue is simply now extended to the relationship with the nature of liabilities imposed under the Liability Annex.

Subject to those matters of interpretation, the LLMC does – or could apply – to liabilities for response costs under the Liability Annex, whether under Article 6(1) or 6(2).

If liabilities for response costs are subject to the LLMC what then is the relationship to the maximum limit for liability under the Liability Annex itself. Can shipowners elect which regime to use, and does it matter? The short answer seems to be yes, and yes. Any choice will have a direct bearing on matters such as forum and jurisdiction, and ultimately the enforcement of any liability or recognition of the right to limit liability.

The Relationship between the Liability Annex and the LLMC

The usual position is that a claim is either subject to the right to limit under the LLMC or under a specific limitation regime. Not both.

The Liability Annex establishes a maximum amount for which any operator may be liable in respect of an environmental emergency, and preserves the right to limit under other regimes, provided that the applicable limits are at least as high as provided by the Liability Annex.

The limitation amount specified in respect of ships under the Liability Annex (and the minimum amounts required to preserve any other right to limitation), reflect the same limits that applied to ships under the LLMC, at the time the Liability Annex was drafted. Article 9(4) of the Liability Annex provides for the ATCM to review the limits every three years, or sooner at the request of any Party.

Article 9 was drafted in recognition of the potential application of the LLMC. The negotiations had considered a minimum liability, or for the Liability Annex to 'override' the LLMC and had expressed concern at the arbitrary application of a separate limitation regime in certain cases (namely where an operator was a shipowner). Making the limits of liability between the

LLMC and the Liability Annex the same was one mechanism designed to avoid inconsistency[120] and about the benefit of "insurance purposes".[121]

The preservation of the right to limit under other applicable regimes has been described as a "savings" provision.[122] The final report of the ATCM says the purpose of the drafting was "to clarify the relationship between the draft Annex and the liability or right to limit liability under existing regimes" while one commentator goes further saying the clause "would give the LLMC primacy in the case of both regimes potentially applying".[123]

This suggests an intention to have only one limitation regime apply at any one time. But that is not what the drafting does.

First, Article 9(1) establishes a maximum amount for liability under the Liability Annex:

> 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…

Then it preserves the right to limit under any other applicable regime (the proviso is discussed below).

The Liability Annex does not require "the appliable limits" to be exclusively available for any specific liability[124] and the LLMC is a global regime, that entitles a shipowner to limit in respect of all claims arising from any distinct occasion.

There is nothing in the Liability Annex that requires an election or choice. As drafted, it is entirely possible for a shipowner, to include any potential liability for response costs under the Liability Annex, as just one of a suite of claims, subject to the LLMC. Whether that will be warranted will depend on the nature of the incident and the range of liabilities that arise.

The extent to which the provisions of the Liability Annex can properly control limitation actions

Where liability is solely in relation to response costs imposed under the Liability Annex, can the Liability Annex otherwise limit the application of the LLMC to only apply when its limits are at least as high as the Liability Annex?

Both the LLMC and the Liability Annex are independent international conventions. A treaty is binding on any State that is a party to it, and States have obligations under international law to perform a treaty in good faith.[125]

The terms of the Liability Annex themselves cannot modify the application or operation of the LLMC. Any State that is a party to the LLMC has obligations to give effect to it. The same obligations apply to a State Party to the Liability Annex. During negotiations, the prospect of conflicting obligations under the Liability Annex and the LLMC appeared to influence the drafting. Unfortunately, the final text did not avoid the problem.

---

[120] Johnson M, above n 70, at 50-52.
[121] Final Report of the Twenty-eighth Antarctic Treaty Consultative Meeting (17 June 2005) ("ATCM XXVIII Final Report") https://documents.ats.aq/ATCM28/fr/ATCM28_fr001_e.pdf.
[122] Johnson M, above n 70, at 52 and ATCM XXVIII Final Report at 115.
[123] Above n 121.
[124] Compare CLC, above n 13, Article 7(9).
[125] Vienna Convention above n 46, Article 25.

Where the provisions of the LLMC and Liability Annex are compatible, or comparable, no issue may arise. However, the provisions of the LLMC and Liability Annex may not be compatible or comparable where:

1. There is a difference between the limitation amounts under the two conventions.
2. There is a difference in interpretation on how a claim for response costs under the Liability Annex is dealt with under the LLMC.

Which provisions are to prevail may be determined by whether the relevant State Parties are a party to both the Liability Annex and the LLMC and the application of general principles of international treaty law.

The 1969 Vienna Convention on the Law of the Treaties includes rules to set out what will happen when the same subject matter is dealt with by different and successive treaties.[126] Where both parties are a party to two treaties, the later one will prevail to the extent it deals with the same subject as the earlier treaty. In other cases, the provisions of the treaty to which both States are parties will govern its application.

That might assist to resolve any potential incompatibility where two State Parties are both party to the Liability Annex and/or the LLMC. It does not necessarily resolve the question of which provision will prevail in other circumstances, including where limitation proceedings may be brought in the State of a non-Party to the Liability Annex.

What limit applies?

The limitation amount specified in respect of ships under the Liability Annex (and the minimum amounts required to preserve any other right to limitation) reflect the same limits that applied to ships under the LLMC, at the time the Liability Annex was drafted. The LLMC limits have since been increased.

While it may have been the intention of the negotiating States to keep the limits contained in Article 9(1) of the Liability Annex in line with any increases to the LLMC limits once the Liability Annex had entered into force, the differing limits have very real practical implications.

Unless and until the limitation amounts under the Liability Annex are increased, for many State Parties,[127] the limits of liability under the LLMC 1996 Protocol will be higher than those provided under the Liability Annex. In that case, which limit is to apply?

Some States have directly addressed this issue in domestic legislation. For example, the United Kingdom's Antarctic Act 2013 provides that where the LLMC and the Liability Annex limits are both potentially applicable, then it is the higher of the two limits which is to be applied.[128]

That reflects a clear domestic policy choice and makes the legal position clear where the question of liability and limitation is being determined in the same proceedings and/or jurisdiction.

The Liability Annex itself does not provide for this. Under the LLMC, the right to limit liability is just that. A right. There is no obligation on a shipowner to limit liability under the LLMC. If the limits under the Liability Annex are lower, there is no legal reason why a shipowner who is also an operator could not take advantage of that.

---

[127] At least those who have kept up with the LLMC amendments since 2012.
[128] Schedule to Antarctic Act 2013, paragraph 2, referred IG paper para 11 Parag 2.

Forum and Jurisdiction

The issues become more complex when multiple jurisdictions become involved.

Limitation of liability can be used as a sword or a shield: the right can be invoked in response to a claim that has been made, or in anticipation of claim being made, following an incident.

The LLMC does not have a jurisdiction clause that prescribes where the right to limit can be sought. While the concept of forum shopping is often used pejoratively, there can be legitimate reasons for a shipowner to seek to limit liability and/or establish a limitation fund in a jurisdiction other than where an incident occurred, and/or before any claim has been made.

Conversely, the Liability Annex does have a jurisdiction provision. Article 7 of the Liability Annex provides that "…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 of his or her habitual place of residence" or, where the operator is incorporated in a Party or has 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.

But this jurisdiction clause deals with bringing an action for liability. At the same time, a non-State operator may also justifiably seek to establish a limitation fund or commence limitation proceedings in another State party to the LLMC Convention. That could include limitation in the jurisdiction of a State Party:

- who is not party to the Liability Annex (and where the application of Article 9(2)(b) would not be in force);
- with a limitation regime whereby the limits are lower than those contained in the Liability Annex, where that State is not a party to the Liability Annex,

and the courts may well apply the limits as contained within Article 9 of the Liability Annex if limitation is relevant (or the limitation regime of another application treaty such as the LLMC and subject to the issue raised above in this paper).

The P & I Clubs have raised the very question of the interaction between the Liability Annex and the LLMC, and, how Article 9(2) of the Liability Annex will operate in practice, given the lack of jurisdiction clause in the LLMC.[129]

The P & I Clubs have noted that there will remain differing numbers of States Parties to the LLMC, the 1996 Protocol and the Liability Annex when it enters into force and that some State Parties to the former may not be a State Party to the latter. The very practical question of interest to shipowners, and their P & I Clubs is simple:

> whether the courts in such a circumstance would stay proceedings in light of the other related proceedings if already commenced, and whether the courts would recognize any such related proceedings.

There is no single answer. The position taken will depend as much on conflict of law issues and questions of whether limitation proceedings are seen as matters of substantive or procedural law.

[129] IG Paper to XLII Antarctic Treaty Consultative Meeting, Beijing, 2017.

Where there are gaps in an international convention, requiring the intervention of national law, the consequence of different States applying domestic laws is that the very uniformity that is at the heart of any multilateral treaty is defeated.

Conclusion

The international community recognizes that Antarctica is special and warrants special protection. The Environmental Protocol requires 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 the Protocol. But as things stand there is a legal vacuum of internationally agreed rules governing obligations, liabilities, or compensation for ship-sourced pollution in Antarctic waters.

The Liability Annex, developed by the ATCM because of Antarctica's unique legal status, and in response to its special character, will offer no protection until it comes into effect. There is no immediate prospect of it doing so. Meanwhile, the existing IMO liability conventions offer no assistance for incidents in Antarctic waters, due to their focus on liabilities that arise in a State's territorial sea or exclusive economic zone (or equivalent). Such maritime zones simply do not exist in Antarctica, due to its unique legal status.

Even once the Liability Annex comes into force, its effectiveness is in doubt. The Liability Annex reflects the outcome of the State Parties attempt to have something agreed, rather than nothing, and so has a narrow focus on obligations to respond to an emergency rather than 'damage' as referred to in the Protocol. The liabilities are limited to the costs of responding to an environmental emergency and impose no liability for other types of damage or loss that may follow an incident. The wisdom of that approach, and the optimism for a more comprehensive regime being developed – with the benefit of hindsight – seems somewhat misplaced.

The general and undefined nature of the obligations for preventative measures and contingency plans creates a significant risk of inconsistency in the approach between States in determining when a response is required and what is a reasonable response in Antarctic waters. While shipowners should be able to meet the obligations under the Liability Annex for preventive measures and for insurance under existing industry measures, steps would need to be taken by the ATCM to recognize and take a consistent approach to this and other areas where the effectiveness of its implementation will be determined by matters of interpretation.

Measures under domestic law may be able to fill some gaps, but that increases the likelihood of differing and inconsistent standards that State Parties impose on their operators, including in relation to the right of a shipowner to limit liability under the Liability Annex or the LLMC. It is the lack of uniformity and harmonization under domestic law that international conventions are designed to avoid. Inconsistency means uncertainty for the maritime industry and detracts from the objective of uniform and harmonized international rules and standards, that underpins all multilateral agreements. Crucially here, it begs the question of the effectiveness of measures to protect the Antarctic Environment in the event of a maritime emergency.

How the international legal framework would - or could - govern the allocation of responsibility, liability, and compensation in the event a ship-sourced casualty causes environmental damage in Antarctic waters today, remains a real question. The lack of any real answer is unsatisfactory, whether viewed through the lens of the IMO or the Antarctic Treaty system.

Currently, the Liability Annex suggests the promise of an adequate international regime entering into force at some point in the future. But when in the future remains undetermined, and the likelihood is that the Liability Annex may hinder, rather than help, the maritime industry and States themselves, determine what a prompt and effective response to an environmental emergency in the Antarctic requires, and the nature of any liability that might follow.

The Protocol required the establishment of rules and procedures for liability for damage, but instead the Liability Annex has inadvertently conflated the distinct issues of liability for damage and an obligation to take response action. The threshold question on when to take response action and what that should look like is first at the discretion of an operator, and subsequently an assessment after the fact. Neither brings a great deal of comfort for consistency in decision making to ensure prompt and effective action for protection of the Antarctic environment.

The effectiveness of any response led by an operator rather than a State is divorced from the realties demanded by a response to any maritime casualty, much less one in the Antarctic environment, given its remote and unique characteristics. At best it risks delay, and more likely, will detract from the obligations of States themselves in relation to Emergency Response Action under the Protocol.[130]

From a purely pragmatic perspective, any decision on whether to take response action in Antarctica and implement any appropriate response action is best dealt with at a State level, preferably with the full benefit of any coercive powers of the State, and assets that may be available. The strength in the Antarctic System lies in the co-operation and co-ordination of the parties. The energies of the ATCM would be best directed at enhancing preparedness and response capability at a multi-party State level considering advance assessments determining what effective response action in the Antarctic environment requires, supported by asset identification, and a more structured and sustainable Fund.

Liability for damage and such costs should (of course) remain with the operator, subject to the limitation provisions, as under the IMO conventions. The current lacuna in a liability and compensation regime for Antarctica is unnecessary and – some 20 years on - inexcusable.

The IMO framework could offer a limited solution to bridge the current gap for maritime emergencies in Antarctic waters – potentially through a new protocol to extend existing IMO liability conventions to apply in Antarctic waters.

In respect of maritime matters, the IMO is the competent organization, not just in name but in nature. IMO has been developing liability and compensation systems for more than 50 years. Informed by experience it has shown itself capable to respond to events and to develop appropriate instruments, in conjunction with industry players, and – critically - to bring them into effect.

Many of the existing IMO instruments that seek to minimize the risk of a casualty and/or pollution damage will already apply to a vessel operating in Antarctic waters. Extending the framework of liability and compensation to Antarctic waters and bringing consistency to the scope and nature of any right to limit liability could serve both protection of the Antarctic environment and the objectives of uniformity and harmonisation of international maritime law.

However, whilst this approach may seem attractive and expedient, it would not be without its difficulties. The geographical scope of the IMO liability and compensation Conventions covers

[130] Protocol above n 2, Article 15.

those incidents where ship sourced pollution damage has occurred in the territory, territorial waters, EEZ or equivalent area in a State Party. The continuing uncertainty on the legal status of the territory of Antarctica, and the absence of an Antarctic 'State' would render any stringent extension of the IMO Conventions ambiguous at best, if not unworkable, from a jurisdiction perspective. Whilst a Protocol to the Conventions would not necessarily have to slavishly follow the existing Convention articles and a more singular approach could be sought for the Antarctic to overcome such an obstacle, in reality it may be difficult to find workable solutions to some potentially contentious issues including; what constitutes reasonable measures of reinstatement in the unique and challenging Antarctic environment and, perhaps more critically in the aftermath of an incident, who would decide this?

Likewise, the scope of the IMO Conventions, and definitions contained therein, is not consistent with the Liability Annex and extension thereof may not necessarily meet the objectives of the drafters of the Annex. Any extension of the existing IMO liability and compensation Conventions to the Antarctic will necessarily be limited to pollution by hydrocarbon mineral oil or, once the HNS Convention is in force, pollution caused by hazardous and noxious substances carried as cargo and would not for example cover pollution damage arising from the use of alternative fuels as bunkers. In addition, the Consultative Member States of the ATCM are not all corresponding States Parties to the IMO Conventions and, given that it would be a requirement for a State to be a party to the underlying Convention before becoming a Party to any Protocol, the geographical application of any such Protocol could therefore be limited for some period of time.[131]

However, the IMO has proven to be creative and resourceful in the past when faced with an urgent need to develop statute either in the light of external pressure, an absence of existing statute or as a result of a significant incident that has highlighted a need to take the lead in the framing of international rules and regulations. The development of the Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992, is an excellent, but just one, such example[132]. While there have been incidents, the international community has not yet faced a significant and serious environmental threat to the Antarctic environment from a maritime casualty. History says it is just a matter of time.

[131] It is worth noting that following almost two decades of discussions and negotiations, a new legally binding international instrument on the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction, known as BBNJ, was agreed on 4 March 2023, and is expected to be adopted in 19-20 June 2023. It is too early to say whether BBNJ will provide Antarctica with any more protection than the Antarctic Treaty (and the Liability Annex) and once the text is finalised and adopted ratification by 60 states is required before it will enter into force. However, the polluter pays principle is one of the guiding principles of BBNJ and the agreement includes a mechanism to establish marine protected areas and other area based management tools in the high seas not part of the jurisdiction of any one state. Further consideration of the implications and potential benefits of BBNJ for Antarctic will be necessary once the convention is adopted.

[132] The Protocol was drafted, negotiated and adopted by the IMO over a period of just a few years and in response to the Erika (1999) and Prestige (2002) oil tanker incidents in French and Spanish waters respectively.