



“ICE IN INTERNATIONAL LAW”  
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This paper examines the status of ice in Public International Law.

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# ICE IN INTERNATIONAL LAW

By

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This study outlines the legal issues surrounding ice. The topic has been largely ignored in the literature<sup>1</sup>, in spite of the fact that ice covers a large part of the polar regions virtually yearround, and that those regions account for roughly ten percent of the world's surface. A possible explanation for the oversight is that the subject is a technical one and is largely on the frontiers of international law; but this can just as easily be said for artificial islands and installations, which have nonetheless received substantial treatment. There are similarities between ice and artificial islands, but it is submitted that the differences are great enough to warrant special consideration for ice.

The study proceeds from a description of ice and the uses to which it may be put to an examination of the legal problems which result. It concludes with an appraisal *de lege lata* and with some proposals *de lege ferenda*.

## A. Description and Use

For the sake of clarity, it is useful to divide the subject into two areas – ice shelves and ice islands. The characteristics of ice shelves which are of interest to the international lawyer are that they

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<sup>1</sup> An exception to this is its extensive treatment in Professor Donat Pharand's book, *The Law of the Sea of the Arctic, with Special Reference to Canada*, Ottawa, University of Ottawa Press, 1973. See especially Parts IV and V.

constitute glacial fringes, in such a way that they may be, at any given time, partly afloat and partly attached to land and/or to glaciers on land. The world's largest, the Ross Ice Shelf, is roughly the size of Spain. It, as well as others in the region, are mentioned in the 1959 Antarctic Treaty<sup>2</sup>, but it is not clear whether they are to be regarded as land or water<sup>3</sup>. As for the Arctic, on at least one occasion the existence of an ice shelf has influenced the delimitation of a territorial sea<sup>4</sup>.

Ice islands, on the other hand, are strictly speaking, fragments detached from the ice shelves. They float around in circular patterns in the arctic, travelling up to two nautical miles per day. They are of interest primarily because of their mobility; they tend to mock the various traditional forms of hydrospace, i.e., high seas, territorial seas and internal waters, as well as the more recent Exclusive Economic Zone.

While at their largest they can be bigger than, for instance the island of Thassos in the Aegean, ice islands may eventually either melt or break up into bergs and floes. Seasonal ice may also break up into floes. The various types may differ in origin, but for all practical purposes they are similar, at least to the extent that they are capable of some form of occupation and use. Nevertheless, the traits of mobility and semi-permanence, which most types of ice share, make any generally applicable 'ice-is-land' theory implausible.

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<sup>2</sup> Done at Washington, December 1, 1959. Reprinted in the *American Journal of International Law*, vol. 54, 1960, pp.477-483.

<sup>3</sup> Article VI states: "The provisions of the present treaty shall apply to the area south of 60 degrees South Latitude, including all ice shelves, but nothing in the present treaty shall prejudice or in any way affect the rights, or the existence of the rights of any state under international law with regard to the high seas within the area"

<sup>4</sup> The 'coastal standing ice' on the Russian Pacific Coast was used in 1911 as the base from which their twelve mile limit for sea fishing was to be drawn. Cited in Bishop, WW. Jr., *International Law, Cases and Materials*, 3<sup>rd</sup> ed., (Boston: Little, Brown, 1971), p.601. As for the Canadian Arctic, the ice shelves off Ellesmere Island have never served as baselines.

Be that as it may, a survey of the modes of usage of ice amply demonstrates that an analogy with water is even less convincing. The practical significance of it is basically fourfold:

### *Scientific*

This aspect constitutes the bulk of present activity on ice. Certain teams of scientists have, for instance, been living on and studying ice islands regularly for decades. In addition, several ships have been deliberately imbedded in pack ice in order to have their drift charted over long periods of time.

The Arctic is believed to have a profound effect on the world's climate, and much of scientific activity on ice islands is designed to precisely measure this impact. It is commonly held, for instance, that even a slight melting of the polar ice cap would cause massive flooding down south as well as drastically alter agricultural growing seasons. In the same vein, the ice shelves of the Antarctic are currently being studied for clues as to the gradual rising of the world's oceans<sup>5</sup>.

### *Military*

Ice islands, like artificial islands, are increasingly being used for defence purposes. Several such 'islands' have, for example over the years been occupied and used as bases within the so-called Canadian 'sector' of the Arctic by both the Soviet Union and the United States. In addition, the United States Navy is believed to be presently studying the possibility of using some ice islands as giant aircraft carriers. Ice of course already serves as a form of runway and landing strip for military (and civilian) planes. It has even on occasion supported temporary railways built for troop movement during wartime.

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<sup>5</sup> See "Scientists Drilling Through Antarctic Ice" *International Herald Tribune*, December 14, 1976, p.5

## *Economic*

The chief economic function of ice over the years has been to serve as a base from which hunting, fishing and sealing activities are carried out. In the past it has occasionally been employed rather exotically, such as at the turn of the century, when it served as the site for a gambling casino more than three miles off the coast of Alaska<sup>6</sup>. At the present time it is being used extensively for seismic activity in the Canadian Arctic Archipelago.

Looking to the future, there is immense potential for projects which would tap icebergs as a source of drinking water, an increasingly scarce global resource. A proposal which would have exploited icebergs during the British drought of the summer of 1976 was regarded with skepticism, and a Dutch proposal seems to have got little further, but a million dollar study is now being undertaken by a French firm to determine the feasibility of towing icebergs from Antarctica to Saudi Arabia, a project which is estimated as costing ninety million dollars.

## *Navigation*

Meanwhile, ice is for the most part a negative economic good; Icebergs, floes and seasonal ice are serious hazards to navigation. One need only think of the fate of the Titanic to appreciate the destructive power of ice. This and lesser calamities have led to the establishment of the United States-run North Atlantic Ice Patrol<sup>7</sup>, funded by eight countries and stemming from the 1948 International Convention for the Protection of Life at Sea<sup>8</sup>. The extreme southerly

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<sup>6</sup> See L. Rolland, "Maison de jeu etablie sur les glaces au dela de la limite des eaux territoriales" *Revue Generale de Droit International Public*, 1904, pp.340-345

<sup>7</sup> See Agreement Regarding Financial Support of North Atlantic Ice Patrol, done at Washington on January 4, 1956. UNTS 256:171

<sup>8</sup> Done at London, June 6, 1948. UNTS 164:113

limits of the patrol's activities, to within roughly 500 miles of the Azores, illustrate that ice is not a purely polar phenomenon.

Anyone who doubts the seriousness of the problem is reminded of the intense interest in the Manhattan voyages of 1969 and 1970 through the ice-choked Northwest Passage. The danger inherent in the crossings contributed to the adoption of the Canadian Arctic Waters Pollution Prevention Act of 1970. The recency of the problem and the pioneering state of science are illustrated by the fact that it was in that same year that scientists discovered 'pingoes'- underwater stalagmites of mud and ice which present a significant danger to shipping. Ice in general, it should be noted, will increasingly inhibit seabed exploration and exploitation, particularly that which is done from artificial islands and installations, in areas such as the Beaufort Sea and in the Northwest Atlantic.

## B. The Legal Dimension

The question arises as to who may exercise jurisdiction over ice. The answer would seem to depend upon two overriding factors: 1 – where the ice is located; and 2 – the status granted to it. As to the first, there is no problem in principle within internal waters, from a public international law viewpoint; nor within the territorial sea, to the extent that the ice may be said to 'originate' within either of these regimes of hydrospace. On the high seas, however, the legal status would appear to come into play. Do, for instance, icebergs 'belong' to any particular state? If so, to which one? The one where the ice originates, perhaps?

From the foregoing discussion of application, it will be seen that it could become an important question as to whether or not, for instance, icebergs can simply be dragged off without compensation. Can one in fact talk of 'title' to glaciers, ice islands and the like, in the sense of their

being a *res nullius*, or are they rather a *res communis*? If in fact ice is for the most part a *res nullius*, the question might arise as to whether the state claiming title could be held responsible for damage caused from collision between a ship and an iceberg which originated in its territory. In this vein, a norm already exists requiring the coastal state to keep a channel ice-free within international straits<sup>9</sup>, and probably also in bays and international rivers as well.

To now ice appears to have been treated, on the high seas at least, as a *res communis*, as evidenced in the North Atlantic Ice Patrol and other agreements<sup>10</sup>. In the future, however, as ice takes on more positive value, the tendency is likely to switch towards ice as a *res nullius*. Although there may be reason to regard floating islands as a third type of space (alongside land and water) to which state sovereignty might address itself<sup>11</sup>, it would seem more and more plausible to consider ice as a natural resource over which a state may presumably exercise sovereign rights. Such a concept might be quite useful within, for instance, the Exclusive Economic Zone.

The whole matter of jurisdiction and status is not merely one of academic interest. The question of the status of ice islands took on practical legal significance in the *Escamilla Case*<sup>12</sup> which took place in a U.S. District Court in Virginia in 1970. The relevant facts are that an American citizen was tried on suspicion of murdering another American on an ice island being worked within the so-called Canadian 'sector' of the Arctic. The two men were part of a scientific survey team, and the ice island upon which they were working in the Arctic Ocean, named

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<sup>9</sup> See Erik Bruel, *International Straits; A Treatise on International Law*, vol.1 (Copenhagen: NYT Nordisk Forlag/Arnold Busck, 1947, pp. 221-222.

<sup>10</sup> For an example of a conventional agreement, see the Agreement Concerning Co-operation in Ice-breaking, with Protocol. Done at Helsinki, December 20, 1961. UNTS, 419:79

<sup>11</sup> See his Individual Opinion in the Corfu Channel Case, *ICJ Reports*, 1949, p.43.

<sup>12</sup> U.S.A. vs. Escamilla, No.71-1575, U.S. District Court, Eastern District of Virginia.

Fletcher or T-3, had floated to within 185 nautical miles of the Canadian archipelagic islands.

Much of the pleading revolved around the status of the ice island in question. The defence claimed that United States courts had no right to exercise criminal jurisdiction since the United States Code applied only to ships, which the ice most certainly was not. The prosecution argued, on the other hand, that as the ice island was in fact high seas, and as it mattered little in any case whether an offence took place on board a vessel or in the sea itself, jurisdiction was justified. The Canadian Government, which chose to waive jurisdiction, appears to have favored the tactic of assimilating the ice to a ship<sup>13</sup>, thereby avoiding a controversy over either the sector theory (which Canada has never officially claimed and which the United States has consistently rejected), or Canadian Arctic claims generally.

The accused was eventually found guilty, jurisdiction apparently being exercised on the basis of nationality. Thus, the question of the status of the ice was circumvented. Nonetheless, the question could easily arise in the near future as the multiple usages of ice increases. The whole question of jurisdiction and sovereignty over ice might become complicated in the future if it can somehow be shown that a particular ice island 'belongs' to some state or other. What will lead to most of the interesting problems is likely to be the mobility factor, i.e., the fact that although ice may in some way or another be harnessed, it moves around more or less independent of human interference. Ice may, for instance, form on the high seas and float into territorial and internal waters, or vice versa. It may even form in the internal waters of one state and end up in the internal waters of another.

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<sup>13</sup> See Pharand, *op.cit.*, pp. 202-203.



## *Conclusion*

There is only very rare mention of ice in conventional international law. It is difficult to speak of a custom regarding its status, owing especially to its random and disparate usage. Thus, while ice seems to have a character all its own, being neither stationary as land, nor artificial as a ship, nor navigable like water, yet increasingly an object of interest, it has no status of its own in international law. On first glance it would appear to have a *status mixtus*, for on the high seas it has been regarded as something akin to a *res communis*, whereas elsewhere it has been the subject of state jurisdiction. But the fact that one and the same piece of ice may move around from one area to another makes any such dual classification impracticable. In short, ice has in fact a distinctive physical character, though this is not reflected in positive international law. Thus, there would appear to be a lacuna in the law.

## *De lege ferenda*

There is reason to consider ice shelves as *glacies firma*, akin to *terra firma*. As Lakhtine pointed out in 1930, "...ice formations that are more or less immovable should enjoy a legal status equivalent to polar territory"<sup>14</sup>. Floating islands, however, pose greater problems because of their mobility. They are, as has been pointed out, different from land. Moreover, they are of increasing national and community interest. As such, they should be the subject of a multilateral convention which would give them a special legal status commensurate with their physical characteristics, as well as set out the ground rules for their application and usage, in order to avoid the problems over responsibility, jurisdiction and ownership which are otherwise bound to arise.

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<sup>14</sup> W.L. Lakhtine, "Rights Over the Arctic", *American Journal of International Law*, vol. 24, 1930, p.712.