

Documents on Canadian Arctic Sovereignty and Security

Ice Islands in Canadian Policy



Adam Lajeunesse

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Ice Islands in Canadian Policy

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Adam Lajeunesse

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List of Acronyms

ACND	Advisory Committee on Northern Development
ARL	Arctic Research Laboratory
ARLIS	Arctic Research Laboratory Ice Station
DNANR	Department of Northern Affairs and Natural Resources
DND	Department of National Defence
JAWS	Joint Arctic Weather Stations
NAND	Northern Affairs and National Development
PAC	Public Archives of Canada
RCAF	Royal Canadian Air Force
USSEA	Under-Secretary of State for External Affairs

Preface

This volume is a documentary history of ice islands in Canadian policy. It examines the impact these formations had on Canadian strategic thinking and the role they played in the development of Canada's broader legal/political position on Arctic maritime sovereignty. An ice island is a flat, floating mass of hard multi-year ice, solid enough to permit semi-permanent occupation but constantly drifting with the Arctic Ocean currents. Their semi-permanence has, historically, led certain Canadian policy makers to assume that they may be capable of occupation and, therefore, appropriation in the same manner as land. While this right was never codified in international law (and permanent occupation never attempted by any state) the unique nature and ambiguous legal status of ice islands made the question of sovereignty and jurisdiction an important one.

This compendium is a collection of the most relevant documents surrounding the development of Canadian policy vis-à-vis ice islands. It includes military appraisals, legal assessments, official correspondence, and other material charting the evolution of official Canadian thinking on the subject and its relation to the country's larger maritime sovereignty concerns. It is, by necessity, an incomplete collection. Years of declassification by this author (and others) have yielded a great deal of relevant material, yet certain key documents remain classified. In spite of this, the documents presented here provide researchers with an accurate overview of the evolution of Canadian policy, from the earliest examination of the topic in 1954 (Document 1) to the early 1970s – by which point the Canadian government had essentially (but not officially) abandoned any claim to ice islands (Document 22).

In 1954, the Canadian government's interest in these formations was piqued by a Soviet reconnaissance flight over an American research station on ice island T-3. Questions of jurisdiction over T-3 led the Department of External Affairs to finally question the status these islands might have in law, while catalyzing an examination of Canadian jurisdiction and sovereignty in the Arctic waters more generally (Documents 1 and 2). While the question of sovereignty over ice islands was only seriously discussed for a few years in the mid to late 1950s, that discussion offers researchers important insights into the origins of Canada's Arctic maritime sovereignty. In seeking to determine the status of ice islands, Canadian policy makers were forced to confront a number of uncomfortable realities. The first was that they were uncertain of what exactly Canada claimed in the Arctic maritime sphere, and on what basis the country could realistically make any such claim. The second was that both ice islands and the sea ice of the Arctic Ocean were almost certainly outside any

kind of Canadian jurisdiction which might be recognized under existing international law.

From the mid-1950s until the early 1970s, the Department of External Affairs and other government agencies with an interest in Arctic sovereignty and security worked to clarify the country's position and determine the extent and basis of Canadian sovereignty in the region. Documents 1 to 7 chart the early phase of this process, as Department of National Defence examined the potential strategic threat from Soviet controlled ice islands and External Affairs considered the possibility of exercising some form of authority or control over those ice islands within the Canadian "sector."¹ Document 2 represents the most comprehensive assessment of the subject. Written by External Affairs in May 1954, it concludes that international law offers Canada no avenue for claiming jurisdiction over ice islands. In spite of this, it also states that national jurisdiction should not necessarily be abandoned.

External Affairs adopted this position for two reasons. First, it assumed that international law may eventually change, granting Canada the right to extend jurisdiction to the ice of the Arctic Basin. Given that international maritime law was then in a state of flux, this was not a fantastic hope. Secondly, the Department recognized that any explicit disavowal of sovereignty over ice islands or the water/ice of the Canadian sector, would force the government to clarify what it *did* consider to be Canadian waters. Trying to do so would have been awkward as External Affairs had no answer to give.² Document 9, a legal memorandum from 1955, clearly outlines the confused state of Canadian thinking on the subject. It emphasises the need for a more coherent policy line but it also cautions against too broad of a claim. In 1956, Jules Leger even warned the Deputy Minister of Northern Affairs and Natural Resources that "to try to dispel any possible ambiguity" might lead to the embarrassing "request that Canadian Arctic waters be defined" (Document 11).

This policy of purposeful ambiguity was necessary at the time as the status of the Arctic waters was undergoing a review by the Interdepartmental Committee on Territorial Waters and a specially formed Cabinet committee. Cabinet was presented with recommendations in February 1956 from these bodies suggesting that it avoid

¹ The Canadian sector is a pie shaped wedge of territory lying nation's western boundaries marked by the 141st meridian of west longitude extending to the Pole and the eastern boundary marked by the 60th meridian of west longitude extending north from just east of Ellesmere Island. For more on the history of the sector, see Peter Kikkert and P. Whitney Lackenbauer, *Legal Appraisals of Canada's Arctic Sovereignty: Key Documents, 1905-56* (DCASS no.2, 2014).

² For a full history of Canada's Arctic maritime studies and the evolution of its policy see: Adam Lajeunesse, *Lock, Stock, and Icebergs: A History of Canada's Arctic Maritime Sovereignty* (Vancouver: UBC Press, forthcoming 2015).

any action on the issue and leave the country's position undeclared.³ The following month Cabinet chose to define Canada's Arctic maritime domain as extending to those waters lying within the Arctic Archipelago – effectively excluding ice islands from Canadian jurisdiction.⁴ This decision was not made public largely because doing so would have required the government to support this new claim against potential challenges. As such, Canada's official position remained ambiguous and, even after effectively determining where the country intended to draw its boundaries in the North, Canadian policy makers continued to recommend reserving their rights to ice islands and the maritime areas within the Canadian sector (Documents 13 and 14). In a creative approach, Graham Rowley, one of Canada's preeminent Arctic experts and long-time chair of the influential Advisory Committee on Northern Development (ACND), even suggested that Canada might claim jurisdiction over ice islands as though they were ships (Document 15). This idea resurfaced in the 1970s (Document 23) as a convenient way of assigning jurisdiction, but the practice never solidified into customary international law.

In 1958, the United Nations Conference on Law of the Sea resulted in a number of landmark conventions, one of which – *The Convention on the Continental Shelf* (a section of which is included as Document 16) – removed the possibility that ice islands might be occupied and claimed as “land” or controlled as artificial structures in the manner of an oil rig. In the wake of the new UN Conventions, and in light of increasingly conflicting public statements from Canadian politicians, External Affairs and the ACND undertook a more thorough analysis of Canada's Arctic maritime sovereignty beginning in 1958. This extensive study solicited the views of various government departments on the advisability of claiming sovereignty over the waters of the Arctic Archipelago, those of the Canadian sector, and over ice islands. Key sections of this survey, and a response from the Department of National Defence, are included as Documents 18 and 19. While ice islands were considered within this review, it is clear that they were no longer an important consideration from either a strategic or legal/political standpoint.⁵

³ Ibid.

⁴ The file cited here quotes heavily from the Cabinet decision. The original remains classified, as does much of the surrounding material: memorandum from Legal Division, July 12, 1968, LAC, RG 25, vol. 15729, file 25-4-1.

⁵ Memorandum to the Prime Minister, March 17, 1959, RG 25, vol. 7118, file 9057-40, pt. 9.1.

In the early 1960s Canada attempted to secure American recognition of its sovereignty over the waters lying within the Arctic Archipelago.⁶ The question of jurisdiction over the ice of the Arctic Basin was not raised, however, and Canadian policy makers continued to reserve their position on the subject for the same reasons outlined in 1954. There was still the hope that international law might one day become more favourable to a broader Canadian claim. There was also the concern that any repudiation of such claims would force Canada to clarify its legal position which, in spite of extensive legal reviews in the 1950s and negotiations with the United States over Arctic sovereignty from 1963-64, remained unresolved. Documents 20, 21, and 22 demonstrate the consistency of this mindset from 1962 until 1971. In the early 1970s, the voyage of the icebreaking supertanker SS *Manhattan* forced a revaluation of Canadian Arctic policy. The ambiguity that had long been the hallmark of Canadian policy was finally replaced by a clear and consistent claim to the waters of the Arctic Archipelago as historic internal waters – much as had been recommended in 1959 by the ACND.

In spite of this new clarity, the issue of ice islands was never actually dealt with. There was never any public statement on where Canada stood on ice islands and External Affairs apparently spent no effort developed its position on the subject. The matter was only forced on Canada in 1971 when Mario James Escamilla – an American working on ice island T-3 (which was then floating through the Canadian sector) – murdered one of his coworkers. *The Escamilla Case* created an awkward situation for External Affairs. If Canada claimed jurisdiction over the sector, or the ice islands within it, then it should claim legal jurisdiction and try Escamilla. From a practical standpoint however, External Affairs recognized that the United States would never accept Canada's right to conduct the trial or to any jurisdiction over T-3. Knowing this, and anxious to avoid choosing between an embarrassing confrontation it was sure to lose and surrendering any theoretical future rights to the water and ice of the Arctic Basin, Canada chose to “reserve” its position and waive jurisdiction in the case (Documents 22 and 23).

Fortunately for the Canadian government, the case received minimal publicity and External Affairs was never forced to clarify its position. Escamilla was tried in a US court and the State Department, then in negotiations with Canada over the status of the Arctic waters, felt no need to make its own task more difficult by focusing on the issue. After the brief interest in the *Escamilla Case* faded, so too did any renewed interest in finally resolving the status of ice islands. By the mid-1970s, Canada was

⁶ Adam Lajeunesse, “Claiming the Frozen Seas: The Evolution of Canadian Policy in the Arctic Waters,” *Canada and Arctic Sovereignty and Security: Historical Perspectives, Journal of Military and Strategic Studies*, Ed. P. Whitney Lackenbauer (Calgary: University of Calgary Press, 2010).

openly claiming sovereignty to the waters of the Arctic Archipelago based on historic occupation and, by the late 1970s and early 1980s, External Affairs was preoccupied with securing American and international recognition of Canadian sovereignty over those same waters. When a Soviet ice island briefly entered Canada's 200-mile EEZ in 1977 the Canadian government sought information about its intent and reminded the Soviets of Canada's jurisdictional rights in the area, however Ottawa made no effort to push the issue of sovereignty. The question of ice islands was considered a distraction at best and an embarrassment at worst and, as such, faded back into obscurity.

This preface has outlined the intent and structure of this volume. However, in order to provide the reader with the necessary background and context, this compendium includes an extended introduction by Gordon Smith (1918-2000) entitled "Ice Islands in Arctic Waters." This paper, the most detailed and comprehensive history ever written on the subject of ice islands, is an excerpt from Smith's unpublished manuscript: *A Historical and Legal Study of Sovereignty in the Canadian North and Related Law of the Sea Problems*. It was written for the Department of Indian Affairs and Northern Development in 1980 as a background paper on the subject and classified secret. Most of the work has been declassified through the Access to Information Act, however certain sections deemed too sensitive by the Department of Foreign Affairs, Trade, and Development remain "black-out."

In spite of this, Smith's work offers an incredibly detailed look at the history of ice islands and their role in defining Canada's Arctic sovereignty. In so doing, he provides the reader with more than an understanding of how Canada approached these floating blocks of ice; this work shows how the Canadian government began to lay the groundwork for its Arctic maritime policy more generally. This policy, which continued to shift and evolve until the declaration of straight baselines in 1985, first took form in the early 1950s as Canada was examining its legal and political options surrounding a number of Arctic maritime issues – one of which was ice islands. While, that particular issue lost much of its importance in the late 1950s, the policy work done in response to concerns over ice islands carried over and had a significant impact on how Canada chose to frame questions of Arctic maritime sovereignty as a whole. For these reasons, Smith's introduction should be read carefully not simply by those with an interest in ice islands themselves, but by anyone seeking to understand the history of how Canada came to define the Arctic waters as being Canadian.

This copy was produced with the help of Gordon Smith's literary executors, Tom and Nell Smith, who have preserved Smith's research since his death in 2000 and continually work to make it more accessible. This publication was also made possible by the help of Dr. P. Whitney Lackenbauer who consolidated different declassified versions that I had obtained through the Access to Information Act, thus determining what text that could be reproduced.

Editor's Note:

Small sections of this document remain classified under sections 15(1) and 18 of the Canadian Access to Information Act, which include the following provisions:

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Ice Islands in Arctic Waters

Gordon W. Smith

Department of Indian Affairs and Northern Development

Ottawa, Ontario

May 15, 1980

Ice islands, to describe them in simple and non-technical terms, are large floating masses of a distinctive kind of ice, which drift slowly with the wind and water currents of the Arctic Ocean. They vary greatly in size and shape, and since most of them are large and solid enough to permit semi-permanent or permanent occupation, they raised delicate and potentially difficult questions of jurisdiction and control.

Since their discovery, or more correctly perhaps, identification, in 1946,¹ ice islands have attracted a great deal of interest and scientific investigation. It is well established that their place of origin is the huge mass of shelf ice, or shore ice, of the north coast of Ellesmere Island, from which they break in great chunks, thus freeing themselves to drift in the ice-packed waters of the Arctic Ocean. To this extent their origin would not appear to be a matter of doubt; however, there has been much more uncertainty about the ultimate origin of the shelf ice from which they detach themselves.

Ice islands are remarkably similar in their basic physical and chemical characteristics, although within this general similarity there is room for considerable variation. In size, for example, there is much variability; however, they are generally large compared with other ice structures around them. The largest discovered thus far, T-2, had dimensions when first sighted of approximately 17 x 18 miles and an area of 300 square miles.² Their shape as seen from the air may be roughly circular, elliptical, rectangular, or triangular, this basic outline being generally established at the time of breaking away from the ice shelf, but subject, of course, to later fragmentation. Unlike icebergs, but like ice floes, their upper

¹ L. S. Koenig, K. R. Greenaway, Moira Dunbar, and G. Hattersley-Smith, "Arctic Ice Islands," *Arctic*, 5, No. 2 (July, 1952), 67-68.

² *Ibid.*, p. 70. See also M. Dunbar and K. R. Greenaway, *Arctic Canada from the Air* (Ottawa: Defence Research Board, 1956), *passim*, for further information of an incidental sort about ice islands. For another early discussion of ice islands, on a smaller scale, see S. Orvig, "Floating Ice Islands in the Arctic Ocean," *The Geographical Review* 43:2 (April, 1953), 277-279.

surface is as a rule markedly horizontal; and, it would appear, the under surface is generally quite horizontal as well. They are thus like enormous blocks, or rafts, or boxes, floating on the surface of the sea. Their thickness ranges from a minimum of between 50 and 100 feet to a maximum of perhaps 250 feet. Because of their regular conformation there is a fairly standard correlation between total thickness and thickness of the portion above sea level, has a height ranging from about 7 or 8 feet to a maximum of perhaps 40 feet. Thus they normally tower above relatively undisturbed pack ice and ice floes, and are easily observable in clear weather conditions. Their outer edge may be vertical like a cliff, thus suggesting a clean break with the ice shelf from which they come; on the other hand this outer edge may assume an uncertain slant as it descends gradually into the sea, indicating in some instances; no doubt, a process of weathering.

The most distinctive feature of the ice islands, however, is their regular, corrugated surface pattern of parallel troughs and ridges, which typically run right across them from end to end. The crests of these ridges form remarkably uniform parallel lines, up to half a mile or more apart, and very conspicuous when seen from the air. Contrary to early suppositions the crests of the ridges are usually not much higher than the troughs, the difference in elevation being only a matter of inches in some cases, and about two or three or several feet in others. Sometimes in the thawing season the ice islands develop little drainage systems of their own, with water accumulating in the troughs, and streamlets or rivulets developing to carry the water away. The seasonal thaws also tend to expose the rocks, soil, and other foreign materials which are found throughout the bodies of the ice islands, and which make up another of their distinctive characteristics.

The ice islands drifts basically in a consistent pattern, subject, however, to irregularities brought about by a variety of circumstances. Their basic movement, starting from the Ellesmere Island shelf ice where they originated, is roughly in a clockwise circle, progressing slowly along the northwestern fringe of Canada's arctic archipelago, through the Beaufort Sea north of the coasts of Alaska and northeastern Siberia, northward to the vicinity of the North Pole along a route generally well to the east of the New Siberian Islands, and then back to approximately the place of beginning. However, this route may be varied or interrupted by vagaries of wind and current, by their running aground in shallow water or against some coast, by being caught in huge masses of the arctic pack, or by being diverted into the waters of the Canadian archipelago, Nares Strait or the Greenland Sea northeast of Greenland. The rate of drift is also variable, but, when there are no serious impediments, is likely to average out at between one and two miles per day.

Origins

It did not take long to deduce that the ice islands must originate from the ice shelf off the northern coast of Ellesmere Island. It was at first widely assumed that this ice shelf must have been formed by glacial action, and consequently most have originated more or less as icebergs do. However, this supposition did not account adequately for the very large area of the ice shelf, or for its relatively flat surface, or for the extreme discrepancy between the large area and the relatively shallow depth, all of which make it very unlike the typical iceberg. Also unexplained was the regular ridge structure of the surface. In any case there is not sufficient glacial structure of movement on the north coast of Ellesmere Island to account for the ice shelf there, and it appears that such glaciers as do exist are getting smaller and receding from the coast, rather than growing and over-running it.

It was thought also that the shelf might be composed largely of ice resulting from the annual deposits of snow upon the surface of the coastal ice in this region (i.e., firm ice). This also appears unlikely, for a number of reasons. For one thing, the annual precipitation here is far too small (in some places no more than about two inches) to make the theory tenable. This low rate of precipitation means that normally the yearly increment of snow practically disappears during the short summer season, and there may even be a net loss of water from the surface. Also, the relatively high proportion of rock, soil, and other extraneous materials in the ice shelf is at odds with growth resulting from deposits of pure snow upon the surface.

For similar reasons the concept of an origin in the upper reaches of the deep valleys opening upon the northern coast of Ellesmere Island was largely discounted. The size, shape, and structure of the ice shelf was not considered compatible with an origin of this kind.

In 1954 Professor Frank Debenham, formerly of Cambridge University and the Scott Polar Research Institute, put forward a theory which seemed to be a considerable improvement over others advanced previously.³ Rejecting or questioning these others, Debenham suggested that the ice shelf developed basically through accretions of ice below rather than above the surface of the shore ice and the ice at the outlets of the large valleys. In other words it was formed, not from snow falling or blowing on the top, but rather from annual or periodic increments of ice water touching the under surface. At times, particularly in periods of heavy freezing, some or much of this under surface would rest upon the bottom, where it might pick up considerable quantities of rock, mud, and other such materials from the seabed. Over the years these horizontal

³ F. Debenham, "The Ice Islands of the Arctic: A Hypothesis," *The Geographical Review*, XLIV, No. 4 (Oct., 1954), 495-507.

strata of added ice and extraneous materials would gradually be raised toward the surface, accounting for the impurities found so characteristically and in such large quantities in both the shelf ice and the ice islands. In the warm season, when ice was melting above and perhaps also below, the thickness might be reduced to the extent that the ice would float free of the bottom, and later an increment of new surface ice might form between the shelf and the shore. The familiar ridges were formed basically by pressure nipping or crushing between the two shores in the case of fiord ice, crowding of the ice pack towards the shore in the case of shore ice. Debenham spoke also of “debris lines” formed by debris picked up at points of contact with the bottom (in the fiords particularly, I think), this debris being gradually pushed outward from the shore, bit by bit each year. He cheerfully admitted the tentative and incomplete nature of his theory, but it did seem to give a more reasonable explanation of the origin of the ice shelf than others advanced up to that time.

Debenham's basic theory of growth in thickness through accretions below rather than above the surface of the ice won wide acceptance, and was fortified in due course by a variety of evidence. Debate continued, however, about the origin of the characteristic ridge-and-though phenomenon. In an article published in 1957 G. Hattersley-Smith detailed his belief that wind action on the surface snow is largely responsible. He summarized his theory as follows: - “Of various possible agencies that may have caused the rolls on the Ellesmere Ice Shelf, wind action appears the most likely. It is suggested that the original development of the rolls was analogous to the formation of sand dunes in the desert.”⁴ Writing in 1960, A. P. Crary accepted the concept of a wind origin, but he had in mind primarily, as he put it, “the action of strong summer winds on melt-water lakes and ponds.”⁵ It is apparent that this question continued to arouse speculation and controversy.

The Ellesmere Ice Shelf

The Ellesmere Ice Shelf was seen by the explorers who first travelled along the north coast of Ellesmere Island, notably Pelham Aldrich of the Nares expedition in 1876⁶ and Robert Peary in the first decade of this century.⁷ They took note of the unusual characteristics of the ice but apparently did not speculate very much about its origin. So far as is known there was not a great deal of change in the ice shelf until approximately the 1940's. When the ice islands were “discovered” during this decade, and while research was being undertaken afterwards to

⁴ G. Hattersley-Smith, “The Rolls on the Ellesmere Ice Shelf,” *Arctic* 10, No. 1 (1957), 32-44, esp. 43.

⁵ A. P. Crary, “Arctic Ice Island and Ice Shelf Studies, Part II,” *Arctic*, 13, No. 1 (March, 1960), 32-50, esp. 47.

⁶ *Parliamentary Papers* (1877), pp. 201, 201-202, 202, 203, 205, 212, 213, etc.

⁷ R. E. Peary, *Nearest the Pole* (London, 1907), pp. 181, 185, etc. (supra).

investigate their presumed origin in this region, the ice shelf extended more or less continuously over the approximately 120 miles between Cape Columbia and Yelverton Bay, with isolated patches on either side. At its maximum breadth it projected outward from the coast as distance of about ten miles. The ice shelf included not only the coastal strip but also the ice filling the mouths of several large inlets or fiords. There were four major ice shelves and a number of smaller ones. The four large ones, from west to east, were Milne, Ayles McClintock, and Ward Hunt. Milne, Ayles, and McClintock were named for the inlets where they were located, and had little projection outward from the shore. Ward Hunt, by far the largest, comprised most of the coastal shelf as well as the ice in several inlets, notably Disraeli Fiord and Markham Bay. It is thought that as late as the early 1960's ice conditions off the Ellesmere Island coast were fairly similar to those prevailing fifty and eighty years earlier, in the times of Peary and Nares respectively, except that there may have been a disintegration of shelf ice in Yelverton Bay, and in the 1940's a large part of the ice shelf in the Cape Columbia region broke away, forming a number of ice islands.⁸ McClintock Inlet is about fifty miles in length, Ayles and Milne Fiords are each about half as long. Writing in January 1962, Hattersley-Smith noted that ice shelf covered the outer parts of McClintock Inlet and Ayles Fiord, and was separated from the glaciers at the fiord heads by bay ice, or by fast ice, which melted completely in summer. Milne Fiord alone was completely covered by ice shelf, which at the head of the fiord appeared to coalesce with the main outlet glacier from the interior ice cap.⁹ During a flight in April 1966, Hattersley-Smith observed that the McClintock and Ayles ice shelves had by this time practically disappeared, having evidently broken into ice islands, and leaving only scattered fragments of ice shelf. On the other hand Milne ice shelf was still intact, with its outer front in roughly the same position as when photographed in 1959 and its inner edge still contiguous with the outlet glacier, although the boundary between the two was clearly visible.¹⁰

A massive calving from the Ward Hunt Ice Shelf occurred between August 19, 1961 and April 18, 1962. Air photographs on the earlier date did not reveal any

⁸ G. Hattersley-Smith, *Ice Conditions off the North Coast of Ellesmere Island* (Ottawa: Defence Research Board, Directorate of Physical Research, Report No. Misc. G-8, 1962), esp. p. 19.

⁹ *Ibid.*, p. 11.

¹⁰ G. Hattersley-Smith, "Note on Ice Shelves off the North Coast of Ellesmere Island," *The Arctic Circular*, XVII, No. 1 (Jan., 1967), 13-14; G. Hattersley Smith, "Northern Ellesmere Island," *Ice: News Bulletin of the Glaciological Society*, No. 23 (April, 1967), pp. 8-9. For a brief treatment of somewhat comparable ice shelves in the Antarctic, see C. Swithinbank, "Ice Shelves," *The Geographical Journal*, CXXI, Pt. 1 (Mar., 1955), 64-76.

significant change from the situation known to have existed for some time previously, but a flight on the latter date discovered that some dramatic development had occurred. Later flights, in May and June 1962, established that five large ice islands, and numerous smaller fragments, had broken away from the ice shelf during the interval. The five large pieces were named W. H. (for Ward Hunt) - 1, 2, 3, 4 and 5, numbering from west to east. They were roughly comparable in shape and size, all having the appearance from the air of huge, irregular rectangles, and raging in areas from approximately 40 to 75 square miles. Altogether about 360 square miles of the ice shelf had broken away. WH1, 2, 3 and 4 all drifted southward along the periphery of the arctic archipelago, but WH-5, the most easterly and the largest, went the other way, towards Greenland.¹¹ Observations on the above-mentioned flight in April 1966 indicated that there had been only minor additional changes in the Ward Hunt Ice Shelf up till that time.¹²

WH-5, the portion which moved toward the east following the break-up in 1961-1962, continued its drift in this direction during the remainder of 1962 and into 1963, and by February 24, 1963, had entered Nares Strait and passed through Robeson Channel. From the end of February until mid-July 1963 it was lodged between Hans Island and the Ellesmere Island coast in Kennedy Channel. Instruments placed on WH-5 and observations from ship and plane, gave a variety of information about the ice island and its movements. On or about July 22 it broke loose, drifted north, then east, then south of Hans Island, and after only a few days had broken into three large pieces and numerous smaller ones. The three major pieces were observed from time to time as they drifted southward through Kane Basin, Smith sound, Baffin Bay, Davis Strait, and along the Labrador coast during the remainder of 1963 and the first half of 1964. By the end of June 1964 the remnants were either in an advanced state of disintegration or had disappeared completely, in the waters along the coast of Labrador or in the vicinity of the Grand Banks.¹³

¹¹ G. Hattersley-Smith, "The Ward Hunt Ice Shelf: Recent Changes of the Ice Front," *Journal of Glaciology*, 4, No. 34 (Feb., 1963), 415-424.

¹² G. Hattersley-Smith, "Note on Ice Shelves off the North Coast of Ellesmere Island," p. 14 (*supra*).

¹³ G. Hattersley-Smith, "The Ward Hunt Ice Shelf: Recent Changes of the Ice Front," pp. 421-423 (*supra*); D. C. Nutt and L. K. Coachman, "A Note on Ice Island WH-5," *Arctic*, 16, No. 3 (Sept., 1963), 204-206; D.C. Nutt, "The Drift of Ice Island WH-5," *Arctic*, 19, No. 3 (Sept., 1966), 244-262; *The Polar Record*, 12, no. 77 (May, 1964), 182-183.

Historical References to Ice Islands, and evidence of Discoveries of Them.

It is obvious, of course, that ice islands composed as they are of old ice which had taken many years to form are by no means a new phenomenon. In fact, there is much evidence that ice islands, although in a sense “discovered” only in 1946, were seen from time to time in the past by explorers and others, who did not realize that this was a kind of ice unlike any they had ever encountered. Moira Dunbar, who looked into this matter very thoroughly in the early 1950's, found an impressive number of references to ice islands in the written accounts of early explorers.¹⁴ Probably one should not take too literally the “great Island of Ice” seen by Martin Frobisher in the waters between Greenland and Baffin Island in 1576,¹⁵ or the “many great Islands of Ice” and the “great Iles of Ice” reported by William Baffin in the same waters about forty years later,¹⁶ since these may have been icebergs, or large floes, or both. Similarly the “old field” seen by Isaac Hayes in 1861 while crossing Kane Basin may have been either a large flat-topped iceberg or a huge floe;¹⁷ and the ice islands reported by Lieutenant G. W. DeLong during his party's disastrous retreat from their wrecked *Jeannette* to the mouth of the Lena in 1881 may also have been large floes.¹⁸ But there were many other discoveries of strange floating ice formations which, judging by the descriptions of them, may well have been ice islands as we know them today. Among these are the huge “Palaeocrystic floes” seen by A. W. Greely in Nares Strait in 1883,¹⁹ the enormous flat “berg” observed by Franz Boas in Cumberland Sound in 1883,²⁰ the mysterious “Crocker Land” and other evidence reported by Peary in 1906²¹ and “Bradley Land” reported by Cook in 1908²² (both north of the queen

¹⁴ Moira Dunbar, “Historical References to Ice Islands,” in L. S. Koenig et al, op. cit., pp. 83-95.

¹⁵ *Hakluyt's Voyages*, VII, 207, 208.

¹⁶ *Purchas His Pilgrimes*, XIV, 379, 398.

¹⁷ I.I. Hayes, *The Open Polar Sea: A Narrative of a Voyage of Discovery towards the North Pole* (New York: Hurd and Houghton, 1867), pp. 311-313.

¹⁸ Emma DeLong (ed.), *The Voyage of the Jeannette: The Ship and Ice Journals of George W. DeLong*, vol.2 (Boston: Houghton, Mifflin and Co., 1884), II, passim, e.g., 600, 604, 612, 613, 614.

¹⁹ A.W. Greely, *Three Years of Arctic Service: An Account of the Lady Franklin Bay Expedition of 1881-84 and the Attainment of the Farthest North*, vol.2 (New York: Scribner's Sons, 1886), II, 46, 47, 53.

²⁰ *Arctic*, 24, No. 4 (Dec., 1971), 309, note by F. Loewe; Franz Boas, *Baffin-Land: Geographische Ergebnisse einer in den Jahren 1883 und 1884 ausgeführten Forschungserise*, *Erg anzuungsheft* No. 80 zu *Petermanns Mitteilungen* (Gotha: Justus Perthes, 1885), p. 5.

²¹ R.E. Peary, *Nearest the Pole*, pp. 131, 202, 207, 240-243.

²² F. A. Cook, *My Attainment of the Pole*, pp. 243-251, also 265 (supra).

Elizabeth Islands), the “large island of ice” in the Beaufort Sea upon which Storker Storkerson drifted in the summer of 1918,²³ and “Takpuk Island”, also in the Beaufort Sea, found and landed upon by the Eskimo Takpuk in 1931.²⁴ Although definite proof is lacking, it would appear quite possible that these and other such formations reported by explorers were indeed ice islands. If so, this would explain why “Crocker Land”, “Bradley Land”, and “Takpuk Island” disappeared without a trace, since they would be in motion, and would gradually drift away as ice islands are wont to do.

The Post-World War II “Discovery” of Ice Islands, and Subsequent Sightings.

The post-World War II “discovery” of ice islands occurred on August 14, 1946. On that date the crew of a converted B-29 Superfortress belonging to the U.S. Air Force 46th Strategic Reconnaissance Squadron (Photo), based at Ladd Field, Fairbanks, detected by radar while on a flight toward the North Pole what appeared to be a large new island. The location was approximately 300 miles north of Point Barrow. Later investigations revealed that what had been discovered was actually a huge, solid mass of floating ice, about 18 by 15 miles in dimensions, 200 square miles in area, and projecting 20 to 40 feet above the surface of the surrounding pack ice. It was characterized by the corrugated surface and other features which have since become familiarly associated with ice islands. The discovery was designated initially Target X and later T (Target)-1, and its existence was for the time being classified secret, while efforts were undertaken to find out more about it. It was seen from the air many times during the next three years, as it drifted slowly westward and then northward, but apparently no attempt to land on it was made.²⁵

Weather reconnaissance flights over the Arctic Ocean were carried on as a matter of routine after March 1947, but for some time no other ice islands were seen. Then in May 1950 Lieut. Col. Joseph O. Fletcher of the 58th Strategic Reconnaissance Squadron (formerly the 46th - Weather) ordered his crews to make a special search for ice islands while flying the “Ptarmigan” route from Ladd Field to the North Pole and return. Two of these flights, on July 19 and 21,

²³ Storker J. Storkerson, “Drifting in the Beaufort Sea,” reprinted from *MacLean’s Magazine*, March 15 and April 1, 1920, as appendix in V. Stefansson, *The Friendly Arctic*, 1943 ed., pp. 715-729. See esp. p. 725.

²⁴ V. Stefansson, “An Eskimo Discovery of an Island North of Alaska,” *The Geographical Review*, XXIV, No. 1 (Jan., 1934), 104-114.

²⁵ L.S. Koenig et al, op. cit., esp. p. 68; Lieut. Col. J. O. Fletcher, “Three Months on an Arctic Ice Island,” *The National Geographic Magazine*, CIII, No. 4 (Apr., 1953), 489-504, esp. 489; *The Polar Record*, 6, No. 45 (Jan., 1953), 684.

1950, spotted another ice island, even later than T-1, at 86°40'N. lat. and 107°00'E. long. This one, mentioned above, was designated T-2. Not many days later, on July 29, a third ice island was detected by radarscope at 75°24'N. lat. and 173°00'W. long. Smaller than the first two, with dimensions of approximately 4 ½ x 9 miles and an average thickness of between 150 and 200 feet, it was christened T-3. Although considered to be another new discovery at the time, T-3 had in fact been seen and photographed by a joint U.S.A.F.-R.C.A.F flight on April 27, 1947, at a point approximately thirty miles north of Ellef Ringnes Island, at 70°50' lat. 104°00'W. long. Although separate by more than three years in time and 1200 miles in space, the two discoveries were later shown to have been of one and the same formation, thus revealing incidentally valuable information about the manner and direction in which the ice islands drift.²⁶

Interest in the ice islands led to reexamination of U.S.A.F. and R.C.A.F. air photographs, with surprising results. It was found that U.S.A.F. flights had photographed two more large ice islands, one about seven by six miles in size on June 28, 1948, approximately 100 miles northwest of Axel Heiberg at 82°45'N. and 104°30'W., and the other, comparable to T-1 in size, in July 1947, about five to ten miles north of Cape Columbia, Ellesmere Island, at 83°10'N. and 70°00'W. Both of these bodies had been “lost” after their existence had been recorded by photography.

The examination of the R.C.A.F. photographs was even more rewarding. Three ice islands were shown in the Arctic Ocean north of Ellesmere Island, three in the Nansen Sound - Eureka Sound waters west of Ellesmere Island, five in Peary Channel north of Amund Ringnes Island, one in Prince Gustaf Adolf Sea west of Ellef Ringnes Island, three in Maclean Strait east of Lougheed Island, one in Byam Martin Channel northeast of Melville Island, four in Heclaand Griper Bay north of Melville Island, one in Peel Sound west of Bellot Strait, three in James Ross Strait west of Boothia Peninsula, four in Erebus Bay west of King William Island, and two, though probably of local origin, in Greely Fiord on the west coast of Ellesmere Island. Altogether at least twenty-eight ice islands of widely varying size, along with a considerable number of smaller fragments, were identified, most of them having been photographed between 1948 and 1951.²⁷

²⁶ 26. L. S. Koenig et al, op. cit., passim, esp. pp. 69-70, 75-76; J. O. Fletcher, op. cit., pp. 489-491; *The Polar Record*, 6, No. 45 (Jan., 1953), 684-686. See also *Arctic Bibliography*, V, 255, entry 29048, reference to J.O. Fletcher and L.S. Koenig, “Floating Island in the Arctic Ocean,” 375th Reconnaissance Squadron (VLR) Weather, Special Report No. 3 (1950).

²⁷ K.R. Greenaway in L.S. Koenig et al, op. cit., pp. 75-82. See also M.R. Montgomery, “Further Notes on Ice Islands in the Canadian Arctic,” *Arctic*, 5, No. 3 (Oct., 1952), 183-187.

Since that time numerous other ice islands have been discovered. In his above-mentioned article published in 1960 A.P. Crary stated that more than eighty had been located, most of them in the Canadian Arctic Archipelago.²⁸ This count, it should be noted, was taken before the above-mentioned calving from the Ward Hunt Ice Shelf in 1961-1962. In view of the gradual disintegration of the Ellesmere Ice Shelf, the relatively unfavorable conditions at the present time for the development of new ice shelf, and the many years necessary for the maturation of this process even when conditions are favorable, it would appear inevitable that in the foreseeable future fewer and fewer ice islands will make their appearance in the Arctic Ocean. One authority, in fact, suggest that apparently "we are indeed approaching a period when the ice shelves might very well become extinct."²⁹ On the other hand those that are already there, and any new ones, may have a much longer lifetime than some authorities have supposed, if they do not come to an end through breaching up, running permanently aground, or drifting southward in Nares Strait or the Greenland Sea, this last eventuality, of course, meaning certain extinction through melting if they continue on their southern route. Otherwise, however, it seems possible that they may persist for longer than the forty to sixty years which one authority suggested as their lifetime.³⁰ No particular effort had been made to keep track of many of the ice islands, and others have been lost, but there are also cases where ice islands have been tracked and their approaching "demise" noted. The fate of T-1, for example, was summarized in the journal *Ice* in 1966 as follows:

T-1, the first recognized and still the largest known ice islands, remains in relatively healthy condition and freely floating. During the 1965 summer it drifted 20 km in a south-easterly direction down the east coast of Victoria Island to the position lat. 71°05'N., long. 103°09'W., near Cape Stang. This ice island had had a remarkable journey in the Arctic Ocean and through the Canadian Arctic Archipelago, and now appears to be approaching its final resting place in the shallow waters surrounding the Royal Geographical Society Islands. When last seen in October 1965, T-1 still maintained its characteristic

²⁸ A.P. Crary, op. cit., Part II, p. 48.

²⁹ Ibid., p. 49.

³⁰ H.U. Sverdrup in 1954, as cited in G. Hattersley-Smith, "The Ellesmere Ice Shelf and the Ice Islands," *The Canadian Geographer*, No. 9 (1957), pp. 6970. See also B.A. Savel'ev, "Opredelenie vozrasta ledianykh ostrovov Arktiki (po materialam zarubezhnykh issledovatelei)," *Problemy Severa*, No. 1 (1958), 341-345, trans. 1959 by D. Kraus as "Determination of the Age of Arctic Ice Islands (on the Basis of Foreign Research Data)."

triangular from and an area of about 125 km[2].³¹

As noted above, T-1 had been seen from the air a number of times, after it was discovered in 1946, as it drifted around the Arctic Ocean. In a paper published in 1960 it was reported to have been last seen at 80°45'N. 4.0°E.³² but this must surely be a misprint or an error, since in this position it would have been well on its way into the Greenland Sea. It is apparent that it became diverted in some way from its circumpolar route into Canadian archipelago waters and down McClintock Channel.

The Russians have been very preoccupied with the ice islands and, in fact, claim priority in their discovery. How official this claim may be is uncertain, but, at any rate, it had been put forward in a number of papers written by Soviet scientists. According to the Russian accounts the initial discovery was made by J. S. Kotov in March 1946, of an ice island 30 x 24 km. In dimensions, to the northeast of Wrangel Island. I.P. Mazuruk in April 1948 discovered a second one, 32 x 28 km, at 82°N. Lat. and 170°E. Long.; and V. M. Perov or Petrov in March 1950 discovered a third, 17 x 8 km., northeast of Herald Island.³³ "The ice islands discovered by Soviet fliers", says one account, "were later noted by U.S. fliers and were named T-1, T-2 and T-3."³⁴ The Russian dates are to be compared with the dates given above, of August 1946, July 1950, and July 1950 (but corrected to April 1947) for the initial North American sightings of T-1, T-2, and T-3 respectively. Another Russian paper says that after the Soviet discoveries "these islands drifted northeast where, since 1950, they have been observed by American pilots."³⁵ This statement might be valid for T-2, but could hardly apply to T-1 and T-3, both of which were discovered earlier, according to our records, and both of which were still drifting southwestward and westward at the time of the North American discoveries.

Occupation of Ice Floes and ice Islands by the United States, till [sic] c. 1965

American interest in making landings and conducting research on the floating ice of the Arctic Ocean developed gradually after the end of World War II. B-29 reconnaissance flights began in 1946 and by 1951 daily flights were being made to the

³¹ *Ice: News Bulletin of the Glaciological Society*, No. 20 (April, 1966), pp. 8-9.

³² A. P. Crary, op. cit., Part II, pp. 48-49.

³³ N.N. Zubov, "Arctic Ice Islands and the Character of Their Drift," *Priroda*, 2 (1955), 37-45, as trans. by David Kraus, p. 1; K.A. Sychev, "The Drifting Ice Island of Station North Pole - 6" *Problemy Arktiki*, No. 5 (1958), 121-124, as trans. by Valys Zilus, p. 1. See also *The Polar Record*, 7, No. 50 (May, 1955), 416-417.

³⁴ N. N. Zubov, op. cit., p. 2.

³⁵ K. A. Sychev, op. cit., p. 1.

North Pole as well as over the Bering Sea. In the meantime Bernt Balchen had taken over the rescue squadron in Alaska and was experimenting with glider pickups and sea ice landings, using ski-equipped C-47s. In 1950 the Tenth Air Rescue Squadron of the Alaskan Air Command set up the first experimental camp on the ice north of Barter Island, but the camp was destroyed by the shifting ice. In 1951 and 1952 the Office of Naval Research carried out projects Ski-Jump-1 and Ski Jump-2 respectively, these being attempts to develop a flying laboratory technique following Russian examples in the 1940's. Actually landings were made on the pack ice and some scientific observations taken, but a variety of accidents and misfortunes caused the experiments to be broken off. Lieut. Col. Fletcher, who became the best known figure among Americans associated with ice island activities, says that these early experiments were completely independent of Soviet postwar influence, because what the Russians were doing in this period was unknown to the West until 1954. "Believe me," he adds in a paper presented to an arctic symposium in 1966, "had we been able to show our authorities the information I have shown you, it would not have been so difficult to get authorization and support for Arctic Basin investigation."³⁶

The veil of secrecy surrounding the ice islands was lifted by American authorities late in 1950, when Lieut. Col. Fletcher presented a paper on them at the First Alaskan Science Conference in Washington, D. C. His paper, delivered on November 10, was based upon a special report on ice islands T-2 and T-3 which had been prepared the preceding September by the 375th Reconnaissance Squadron (VLR) Weather. In his paper Fletcher stressed the "great desirability of establishing semi-permanent geophysical observing stations on secure positions in the Arctic Ocean"³⁷ meaning the ice islands - and his plan was endorsed by the conference and embodied in its 14th recommendations, which read as follows:

"That advantage be taken of the large ice islands in the Arctic Ocean to establish scientific field bases for operations extending over

³⁶ J.O. Fletcher, "Origin and Early Utilization of Aircraft - Supported Drifting Stations," in J. E. Sater (coordinator), *Arctic Drifting Stations: A Report on Activities Supported by the Office of Naval Research, being Proceedings of Symposium* held at Warrenton, Virginia, 12-15 April 1966, under auspices of The Arctic Institute of North America and the Office of Naval Research, U.S. Navy (Washington, 1968), pp. 1-13, esp. 5. See also T. Weeks and R. Maher, *Ice Island: Polar Science and the Arctic Research Laboratory* (New York: John Day Co., 1965), p. 16.

³⁷ *Proceedings of the Alaskan Science Conference of the National Academy of Sciences, National Research Council* (Washington, No. 9-11, 1950); issued as *Bulletin of the National Research Council*, No. 122 (April, 1951), p. 122.

adequate periods of time.”³⁸

While observation and tracking of ice islands from the air was continuing Fletcher kept up his campaign for an occupation of one of them, and eventually his persistence was rewarded. In the winter of 1951-1952 the Alaskan Air Command organized “Project Icicle”, with Fletcher in charge, to establish a weather reporting station and a geophysical research base on a nice island. Of the three large ice islands known to be in high arctic waters T-3 was considered to be most suitable for the project, because by this time T-1 and T-2 had both drifted beyond the North Pole to the vicinity of Ellesmere Island and Greenland, A reconnaissance flight from Thule on March 14 located T-3 at 88°17'N., 166°13'W., in the Alaskan sector about 100 miles from the North Pole; and on March 19 a C-47 of the U.S.A.F. 10th Air Search and Rescue Squadron flew from Thule with eight men aboard and made the initial landing. Among the party were Maj. Gen. William D. Old, head of the Alaskan Air Command, Capt. Lewis Erhart, pilot, and Fletcher himself. After some persuasion Old agreed to let the occupying party of three remain, and the plane took off, leaving Fletcher with Capt. Marion F. Brinegar of the 10th Squadron and Dr. Kaare Rodahl, physician and research physiologist. In the weeks following relief flights arrived bringing supplies and equipment, personnel were exchanged, scientists added, and a variety of work carried on. On May 3 a C-47 piloted by Lieut. Col. W. P. Benedict and carrying nine others made a flight from T-3 to the North Pole and landed there. At the end of June Fletcher, who was one of the North Pole party, and several others received orders to leave T-3, but were replaced by a larger crew with additional scientific equipment.³⁹

T-3, which quickly became known as Fletcher's Ice Island, was occupied until May 1954, when it was temporarily abandoned because by this time it had drifted close to Ellesmere Island and its research services were for the most part

³⁸ Ibid., p. 193. See also L.S. Koenig et al, op. cit., pp. 67, 71; Weeks and Maher, op. cit., pp. 27-28; *The Polar Record*, 6, No. 45 (Jan., 1953), 686. The recommendations of the Alaskan Science Conference were published in *Arctic*, 4, No. 1, (May, 1951), 57-61.

³⁹ Lieut. Col. J.O. Fletcher, “Three Months on an Arctic Ice Island,” *The National Geographic Magazine*, CIII, No. 4 (April, 1953), 489-504. For another and longer first-hand account of the initial landing and occupation see Kaare Rodahl, *North: The Nature and Drama of the Polar World* (New York: Harper and Brothers, 1953). See also J. E. Sater, op. cit., p. 6; Weeks and Maher, op. cit., pp. 31-32, 66-67; *The Polar Record*, 6, No. 45 (Jan., 1953), 686-687; *The Arctic Circular* VI, No. 1 (Jan., 1953), 2-4. A Summary of the scientific work done on T-3 during the first few months of occupation is given in A. P. Crary, R. D. Cotell, and T. F. Sexton, “Preliminary Report on Scientific Work on “Fletcher’s Ice Island”, T-3,” *Arctic*, 5, No. 4 (Dec., 1952), 211-223. And see K. Rodahl, “Ice Islands in the Arctic,” *Scientific American*, 191, No. 6 (Dec., 1954), 40-45.

simply duplicating those being provided by the neighboring weather stations. After being occupied again in the summer of 1955, mainly to give weather information, it was again abandoned; but in March 1957 it was reoccupied as part of the U.S. program during the International Geophysical Year, 1957-1958. Known now as drifting ice station "Bravo", the post was maintained continuously for several years, but in May 1960 T-3 grounded in shallow water about 90 miles northwest of Barrow. For this reason the station was again abandoned, in November 1961. Early in 1962 it was discovered that T-3 had split and a portion about four miles long and two miles wide had broken free; and in February of that year the U.S. Arctic Research laboratory established another station on the floating part. Occupation of this remnant of T-3 was maintained as it continued drifting on its circumpolar route. In April 1972 the ice island, but this time north of Ellesmere Island at approximately 84°23'N. and 84°30'W., was visited by a Soviet party who flew there from their North Pole - 19 station near the North Pole. They were cordially received at the American station. The drift of T-3 had indicated that it takes about ten years for such a body to make one complete revolution in the outer perimeter of the Pacific Gyral. Altogether, one would judge, T-3 has been a better base for scientific research, and has provided more information, than any other ice island or floe.⁴⁰

When the United States was planning its contribution to the International Geophysical Year the responsible American authorities decided to maintain two drifting stations in the Arctic Ocean. The U.S.A.F. agreed to establish and support the two stations and placed Fletcher in charge of the operation. One of the two stations, established in March 1957 on T-3, was "Bravo", mentioned above. To locate a base for the second one Fletcher flew north from Alaska in April 1957, accompanied by a Jesuit priest and arctic expert from Barrow named Father Thomas Cunningham; and they found what they were after in the form of

⁴⁰ M. C. Brewer, "Drifting Stations in the Arctic Ocean," in *Proceedings of the Arctic Basin Symposium October 1962*, held at Hershey, Pa., under auspices of the Arctic Institute of North America and the Office of Naval Research, U.S. Navy (Washington, 1963), pp. 305-307; Weeks and Maher, op. cit., pp. 67-68, 152-155, et passim; C. L. Smith, "A Comparison of Soviet and American Drifting Ice Stations," *The Polar Record*, 15, No. 99 (Sept., 1971), 877-885, esp. table p. 881; *The Polar Record*, 16, No. 105 (Sept., 1973), 847-848; G. H. Cabaniss (ed.), *Geophysical Data from U.S. Arctic Ocean Drift Stations 1957-1960*, Terrestrial Sciences Lab. Project 7628, Air Force Cambridge Research Laboratories, Office of Aerospace Research, U.S.A.F., AFCRL-62-683 (1962), pp. 1-9, inc. charts pp. 3-6, et passim; John F. Schindler, "The Impact of Ice Islands - The Story of ARLIS II and Fletcher's Ice Island, T-3, since 1962," in J. E. Sater, op. cit., pp. 49-78, esp. chart p. 59. See also G. W. Rowley, *Report on the Arctic Basin Symposium* held at Hershey, Pa., 8-11 October, 1962 (copy in Northern Affairs Library, Ottawa). And for a good brief treatment of ice islands and ice floes which deals particularly with American activity on T-3 between 1952 and 1962 see W. S. Carlson, *Lifelines through the Arctic*, pp. 239-267 (supra).

an ice floe about 500 miles north of Barrow, at 80°42'N. and 159°20'W. This floe, about two by two miles in dimensions and ten feet thick, was occupied by a small scientific staff on April 15, and the station was christened "Alpha". A striking feature of "Alpha's existence was a visit in August 1958 by Col. James Calvert in the new nuclear submarine *Skate*, which surfaced in a small polynya right in the middle of the floe. The original intention had been to occupy both stations indefinitely, but ice pressure and a gradual weakening and reduction in size of the floe necessitated a hasty evacuation of "Alpha" on November 6, 1958.⁴¹

Almost immediately plans were set in motion to establish another floating station as a replacement of "Alpha". The U.S. Navy, the U.S.A.F., and the Arctic Research Laboratory at Barrow collaborated for this purpose; and early in April 1959, after an intensive search, Navy P2V ice-patrol planes located a suitable ice floe about 200 miles north of Barrow, at approximately 75°N. and 159°W. This floe was considerably larger than "Alpha", measuring about seven by five miles, although its thickness was only two or three feet greater. An initial landing was made on April 13, and during the weeks following it was occupied by a mixed group of scientists and services personnel with about 500 tons of equipment and supplies. The station was christened "Alpha II", but was known more informally as "Station Charlie". It was occupied continuously until early January 1960, by which time it had drifted to approximately 77°N. and 109°W.; but abandonment was then necessitated by fracturing and the danger of complete disintegration. "Station Charlie" was sighted several times during the three or four years following the evacuation; these sightings confirming that it was continuing its drift around the outer periphery of the Beaufort Gyral.⁴²

The experience gained with floating ice stations to this point showed clearly that the ice islands were best for the purpose, especially for large-scale operations. On the other hand there was no guarantee, or even likelihood, that an ice island would be available at just the time and place needed, while ice floes were usually not so difficult to find. In the case of the ice floes, however, there was the ever-present danger that a sudden evacuation would be necessary, perhaps leaving behind a great deal of valuable and expensive equipment. Yet the information that the floating stations could provide was considered to be absolutely essential,

⁴¹ G.H. Cabaniss, op. cit., pp. 1-9, incl. Chart p. 2, et passim; Weeks and Maher, op. cit., pp. 68-71; L. O. Quam, "Station Charlie," in J.E. Sater, op. cit., pp. 17-18; M. C. Brewer, op. cit.; *The Polar Record*, 15, No. 99 (Sept., 1971).

⁴² L.O. Quam, "Station Charlie," in J.E. Sater, op. cit., pp. 17-21; M.C. Brewer, op. cit.; Weeks and Maher, op. cit., pp. 71-76; G.H. Cabaniss, op. cit., pp. 1-9, incl. chart p. 7, et passim; *The Polar Record*, 15, No. 99 (Sept., 1971), 881. For a summary of U.S. research at the drifting stations till 1960, see Irene B. Cotell, "United States Research at Drifting Stations in the Arctic Ocean," *The Polar Record*, 10, No. 66 (Sept., 1960), 269-274.

especially by the military authorities, at this particular time. Because of this combination of circumstances thoughts began to turn to the concept of smaller, less costly, perhaps less permanent, more “austere” establishments on floating ice, which would try to use the available information, techniques, and technology to the best possible advantage and at minimum expense.

In line with this thinking the U.S. Navy early in 1960 asked the Arctic Research Laboratory to make an initial effort by setting up a small, inexpensive station on an ice floe. The Arctic Research Laboratory (ARL) tried to comply by chartering a small C-46 plane for reconnaissance and other purposes, but the attempt had to be given up in May because of insurance problems. The icebreaker *Burton Island* was then employed for the purpose and during the short navigation season this vessel, after making an “end run” eastward and northward along the mainland coast and Banks Island, plunged into the arctic pack west of McClure Strait and on September 12 established the station on a large floe at approximately 75°N. and 136°W. The floe measured more than three miles long, two miles wide, and nine feet thick; the station was christened Arctic Research Laboratory Ice Station (ARLIS) No. 1. Again in line with revised thinking ARLIS I was resupplied partly by paratroop and partly by small planes which landed on the ice without benefit of a prepared airstrip, thus avoiding the large expense of the heavy equipment necessary to construct and maintain such a convenience. During its short lifetime the small establishment at ARLIS I contributed a good deal of valuable scientific information, but because of the usual reasons of reduction in size and gradual disintegration it had to be evacuated after only six months, towards the end of March 1961. During this time it had drifted about 600 miles westward, to 75°N. and 170°W. The evacuation also was carried out by small planes. It is noticeable that the abandonment took place just as the floe was entering the Soviet sector, but it is not apparent that this fact had any particular significance.⁴³

The enforced evacuation of ARLIS I made it necessary for ARL to formulate speedy plans for a replacement station. Reconnaissance flights in May 1961 reported that the best floe area was about 300 miles north of Barrow, but on May 23 three planes which flew out to select a floe in this area unexpectedly found an ice island about half that distance from Barrow, at approximately 73°N. and 156°W. They occupied it immediately, and it became ARLIS II. The ice island was approximately three and a quarter miles long, two miles wide, and seventy feet thick; and in comparison with others was extremely scarred and land-like in appearance, its surface being littered with rocks, mud, sand, plants and animal remains, and “hills”, the highest of which was 43 feet above sea level. ARLIS II was occupied continuously for almost four years, during which time it drifted right

⁴³ M.C. Brewer, op. cit.; M.C. Brewer, “New Applications of Old Concepts of Drifting Station Operations,” in J.E. Sater, op. cit., pp. 23-28; Weeks and Maher, op. cit., pp. 20, 73-77, et passim; *The Polar Record*, 15, No. 99 (Sept., 1971), 880-881.

across the Arctic Ocean in the vicinity of the North Pole, and then, failing to make the westward turn north of Ellesmere Island, headed southward into the Greenland Sea along the eastern coast of Greenland.⁴⁴ During these four years fourteen research projects were conducted on ARLIS II, sponsored by several major American universities, a Japanese university, the U.S. geological Survey, and the U.S. Navy Oceanographic Office; and a total of 337 personnel served at the station, including 118 scientists of various disciplines.⁴⁵ As ARLIS II continued on its drift it was supplied first by the icebreaker *Staten Island*, then by planes, according to convenience, from Barrow, Resolute, Alert, Thule, and finally Keflavik, Iceland. At the more remote part of the drift T-3 was also made use of upon occasion as a landing station, and of course received its own supplies in the same way. In May 1962 ARLIS II was visited by a party from the Canadian Continental Shelf Project, and one of them, Dr. Fred Roots, found very strong evidence to support his belief that this was the same ice island he had visited in April 1959, at approximately 79°N. and 106°W., close to Cape Isachsen.⁴⁶

During the first year of occupation ARLIS II drifted far enough west to enter the Soviet sector. At the time there was some speculation in the press that there might be some difficulty because of differing Soviet and American views respecting the sector principle, the Russians asserting it, at least in some degree, and the American denying it; but apparently there were no untoward incidents. On May 6, 1962, an American plane sighted a Russian station on an ice floe at about the mid-point of its flight to ARLIS II, and, with permission from Barrow, made a landing on what turned out to be North Pole II. The reception was friendly, but because of the language barrier communication was limited to handshakes, smiles, and photographs of all present. Later the same day a Russian plane circled ARLIS II at low altitude, and in fact another Russian plane had already flown over the station some weeks earlier but on neither occasion was any attempt made to land.⁴⁷ Starting in April 1965 all operations respecting ARLIS II were based upon Keflavik, and on May 1965 icebreaker *Edisto*, which had been sent to remove all personnel and as much material as possible, completed the evacuation. When the station was officially closed at this time ARLIS II had reached approximately 67°N. just above the Arctic Circle, and 27°W. in its southward drift; and its size had shrunk to about two by one and a half miles. As it

⁴⁴ See maps in Weeks and Maher, op. cit., pp. 12, 214; Schindler, op. cit., p. 55.

⁴⁵ Schindler, op. cit., p. 73, tables pp. 72, 74-75, 76-78.

⁴⁶ Ibid., p. 60.

⁴⁷ Ibid., pp. 58-60; Weeks and Maher, op. cit., pp. 128-130. It is apparent that the information in Weeks and Maher (p. 128) about the entry of ARLIS II into the Soviet sector does not tally, so far as the time element is concerned, with the maps cited in fn. 44 above.

continued south and around the tip of Greenland it gradually disintegrated, and at the end of July two of its abandoned buildings were sighted off the west coast of Greenland near Frederikshaab.⁴⁸

While ARLIS II and T-3 were both under occupation the United States set up successively two other stations, both of them small and temporary, in approximately the same areas north of Alaska. On February 10, 1964, ARLIS III was established on an ice floe less than four square miles in size at 73°N. and 151°W. Occupation was maintained for over three months, until May 16. About a year later, on February 25, 1965, ARLIS IV, until the station was vacated on May 16, 1965. Thus, for each of these two short periods of time, the United States had three active drifting stations in arctic waters. Later in the 1960's T-3 was left as the only major U.S. drifting station to be maintained, although upon occasion small temporary satellite stations were set up on ice floes nearby.⁴⁹

[Chart entitled "US Drifting Stations: 1950-1965," originally located here, now attached as Annex 1]

Occupation of Ice Floes and Ice Islands by the Soviet Union, until c. 1965

Russian experience with drifting ice stations in the Arctic Ocean began in 1937, when the Soviet Northern Sea Route Administration established an experimental station on the pack ice only 35 miles from the North Pole. On May 21 of that year a four-engined plane took off from Rudolf Island and landed a party of four men and one dog under the command of Ivan Papanin, plus supplies and equipment, on an ice floe at 89°25'N. and 78°40'W. During the next two weeks three more planes arrived with additional supplies and equipment, giving them a total of nine tons altogether. When occupied the floe was approximately 2-1/2 miles long, 3/4 mile wide, and 10 feet thick. It was christened "Severnnyy Polyus" or "North Pole", but later, after other Soviet drifting stations had been established, it was renamed North Pole-1. The small party maintained their post under increasingly difficult and dangerous circumstances for about nine months, until February 19, 1938, but which time the floe had drifted to 70°48'N. and

⁴⁸ Weeks and Maher, op. cit., esp. 11-23, 128-130; Schindler, op. cit., M. C. Brewer in *Proceedings...1962*, pp. 305-307; *The Polar Record*, 15, No. 99 (Sept., 1971), 880-881; *The Polar Times*, No. 60 (June, 1965), pp. 1-6.

⁴⁹ Schindler, op. cit., pp. 66, 69; *The Polar Record*, 15, No. 99 (Sept. 1971), 880-881; M.E. Britton, "U.S. Office of Naval Research Arctic Research Laboratory, Point Barrow, Alaska," *The Polar Record*, 13, No. 85 (Jan., 1967), 421-423; *The Polar Times*, No. 65 (Dec. 1967), p. 12; no. 66 (June, 1968), p. 23.

19°48'W., and was rapidly disintegrating in the East Greenland Current. In fact the remnant they occupied had been reduced to a mere 164 feet by 98 feet. On February 19 they were removed by the icebreakers *Murman* and *Taimyr*, two of four vessels which had been dispatched to rescue them.⁵⁰

Soviet experiments with drifting ice stations were interrupted by the war, but in 1950 a second try was made. On April 1 of that year a party of sixteen scientists of various disciplines commanded by oceanographer M. M. Somov were landed by plane on a large floe about 350 miles north of Alaska at 76°N. and 167°W. Their stations was christened North Pole-2, or NP-2. Initially the floe had an area of approximately twelve square miles and a thickness of ten feet. They maintained their residence for just over a year, carrying on a great deal of scientific activity, and were removed by plane of April 11, 1951. By this time the floe had drifted to approximately 82°N. and 162°W., a distance of about 400 miles as the crow flies, although because of the meandering route the actual distance covered was over four times as great. A party of scientists visited the floe again three years later, in 1954, by which time, following a clockwise route, it had returned almost to the place where the initial landing had been made four years earlier. The personnel of NP-2, who had much more and better equipment than Papanin's little party had had, made a number of significant observations and discoveries. E.g., they found very strong evidence that as much ice was forming on the bottom of the floe as was being lost from the top by melting, etc., so that the thickness of the formation did not change markedly in four years.⁵¹

After NP-2 had been abandoned there was another gap in Soviet activity with drifting stations, perhaps attributable in some measure to the Korean War; and the next attempts were made in 1954 and 1955. In those two years three more stations were established on ice floes, namely NP-3, NP-4, and NP-5. In April 1954 NP-3 was set up on a floe somewhat less than two miles in length at 86°N. and 176°W., and NP-4 on a slightly larger floe much closer to the Siberian shore at 76°N. and 178°W. After a year of occupation NP-3 had drifted across the North Pole to 86°N. and 34°W., north of Greenland; while NP-4 had drifted northward to approximately 82°N. and 175°W. Thus the straight line drift of NP-3 was

⁵⁰ Ivan Papanin, *Life on an Ice Floe: Diary of Ivan Papanin*, trans. from Russian (New York: J. Messner, Inc., 1939); Weeks and Maher, op. cit., pp. 51-54; Fletcher in Sater, op. cit., p. 3; *The Polar Record*, 11, No. 72 (Sept., 1962), 292-293 (table); 15, No. 99 (Sept., 1971), 878 (table).

⁵¹ A.F. Laktionov, "Dreifuiushchaia stantsiia `Severnyi polius-2'," *Sovernyi Polius* (The North Pole) (Moscow, 1955), trans. by John Miller as "Drifting Station North Pole - 2(1959), pp. 1-7. See also N. N. Zubov, op. cit., p. 13; Weeks and Maher, op. cit., pp. 26, 66; Fletcher in Sater, op. cit., pp. 4, 6; *The Polar Record*, 7, No. 50 (May, 1955) 388; 11, No. 72 (Sept., 1962) 293; 15, No. 99 (Sept., 1971), 878.

roughly 600 miles, and of NP-4 about 400 miles; but the actual drift of each, and especially of NP-4, was several times the straight line drift. In April 1955 the personnel of both stations were evacuated. NP-3, which was breaking up, was abandoned completely; but a new crew was flown in to continue the occupation of NP-4. To replace NP-3 another station, NP-5, was established on a floe at 82°N. and 156°E., and some of NP-3's equipment was taken to it. During the next fifteen months it drifted to approximately 86°N. and 90°E.

The main difference between these stations and NP-2 was the continued increase in the quantity, variety, and complexity of scientific and other equipment that was available to the personnel, so that much more research activity could be carried on, under better working conditions. A new dimension was added by the inauguration of the use of helicopters on these stations, these machines quickly demonstrating their obvious utility of short supply, research, and rescue flights. Also, contrary to earlier fears, it was found quite practicable to make plane flights to and landings upon the occupied floes during the darkness of the long polar winter. Partly in conjunction with the drifting stations, the Soviets continued and expanded their use of "flying laboratories" or "flying observatories", which had first been tried out as far back as 1941, and which involved setting up numerous small plane-borne research parties for a few days or weeks at widely scattered locations on the polar ice cap, during the spring season which was most favourable for both the flights and the landings. By 1956 the entire Russian part of the Arctic Ocean, and much of the North American part as well, had been literally blanketed, in a cumulative sense, by these temporary stations.⁵²

⁵² A. F. Laktionov, "Dreifuiushchie stantsii 'Sovernnyi polius-3', 'Severnnyi polius-4.' 'Severnnyi polius-5'," op. cit., trans. by John Miller as "Drifting Stations North Pole-3, North Pole-4 and North Pole-5" (1959), pp. 8-29; P. A. Gordienko, "Ice Drift in the Central Part of the Arctic Ocean," *Problems of the North* (trans. of Problemy Severa. Dec. 1960), No. 1 (1958), pp. 1-30. See also Fletcher in Sater, op. cit., esp. pp. 3-10; *The Polar Record*, 7, No. 50 (May, 1955), 396-399, 8, No. 52 (Jan., 1956), 27-28; 8, No. 55 (Jan., 1957), 350-351; 8, No. 57 (Sept., 1957), 519-521; 11, No. 72 (Sept., 1962), 293; 15, No. 99 (Sept., 1971), 878; *The Polar Times*, No. 40 (June, 1955), p. 28, No. 46 (June, 1958), p. 9. See also M.C. Brewer, "The Soviet Drifting Ice Station, NORTH-67"; P. A. Smith, "Comments on the Report on the Soviet Drifting Ice Station, NORTH-67"; and brief note by Moira Dunbar, in *Arctic*, 20, No. 4 (Dec., 1967), 263266. In her note Miss Dunbar points out the distinction between the "NORTH" and the "NORTH POLE" series. The "NORTH" series, designated by the last two figures of the year in which they take place, are short, springtime exercises; the "NORTH POLE" series, designated by consecutive numbers, are longer, more permanent exercises. The first use many small planes to acquire as much data as possible over a large area in a short time; the second aim at genuine occupation over as long a period as possible, and thus involve drifting on the floe or ice island. See also "Russian

NP-6, the next drifting station established by the Soviets, seems to have differed from all its predecessors in that it may have been set up on an ice island rather than an ice floe; if so it would mark the first known Russian attempt to carry out a long-term occupation of one of these strange structures. Having been sighted from the air by Soviet pilots, the island was occupied by a Soviet party on April 15, 1956. At the time of occupation its position was at approximately 74°30'N. and 177°W., about 175 miles north of Wrangel Island, Wedge-shaped, its maximum dimensions were roughly nine by six miles; thus it was roughly comparable in size to T-3. Its thickness varied from 30 to 40 feet. During its first year of occupation NP-6 drifted around in a very irregular and unpredictable fashion north and northwest of Wrangel Island, but in 1957 it took off in a westerly direction, and by April of 1959 had reached a location almost due north of and about 450 miles distant from Spitsbergen. Thus, unlike the American-occupied ice islands, it had not been caught in the circumpolar drift that had carried these ice islands northeastward across the region of the North Pole and back towards Greenland. Since it had become apparent that NP-6 was going to get caught in the Greenland current and drift south between Greenland and Spitsbergen, its personnel were evacuated in September 1959. By this time it had got to approximately 82°N. and 4°E., and its straight line drift had been 1800 miles.⁵³

Activities on the Canadian Side of the Pole,” a paper prepared by the Arctic Section, Defence Research Board, in External Affairs File 50211- 40, Reconnaissance of Possible Soviet Activities in the Canadian Arctic, Vol. 1 (1950-1959). This paper, classified “SECRET”, summarized both U.S. and U.S.S.R. activities on ice islands or floes to date (August 1954), so far as then known, at a time when it was thought one of the Russian drifting stations was going to enter, or had entered, the Canadian sector. The paper recommended immediate and continuing reconnaissance by the R.C.A.F. of this station.

⁵³ K.A. Sychev, “The Drifting Ice Island of Station North Pole-6,” op. cit.; K. A. Sychev, “Tri goda dreifa plavuchego ledianogo ostrova `Severnyi Polius6”” *Morskoi Flot* (1959) trans. by D. Kraus and R. Flagg as “Three Years of Drift of the Floating Ice Island North Pole-6(1959); *The Polar Record*, 8, No. 55 (Jan., 1957), 350-351; 8, No. 57 (Sept., 1957), 519-521; 9, No. 60 (Sept., 1958), 242; 9, No. 63 (Sept., 1959), 570-571; 10, No. 66 (Sept., 1960), 278-279; 11, No. 72 (Sept., 1962), 293; 15, No. 99 (Sept., 1971), 878; *The Polar Times*, No. 44 (June, 1957), pp. 10-11; No. 49 (Dec. 1959), p. 14. It should be added that the information in some of these references suggests that NP-6 may actually have been an ice floe after all, and not an ice island. See also N. A. Churkina, “Drift of Buoys in the Central Arctic and in the Arctic Seas, *Problems of the North* (trans. of *Problemy Severa* Dec. 1960), No. 1 (1958), pp. 342-345. This paper shows that buoys launched in arctic waters north of European Russia generally get caught in the same current as NP-6, drift right across the Arctic Ocean sometimes getting quite close to the North Pole, and then drift south in the Greenland current to the vicinity of Iceland.

NP-7 was set up on a nearly square-shaped ice floe measuring about a mile and a half along each side, in April 1957. When occupied it was located at approximately 82°N. and 164°W. Its very variable thickness suggested that it was not a single block of ice, but rather was composed of a number of floes which had frozen together. When abandoned in April 1959, after almost two years of occupation, it had drifted to a point about eighty miles north of Cape Morris Jessup, Greenland, at approximately 85°N. and 33°W. By this time its size had been reduced to less than half a mile in either direction. Just what happened to the floe afterwards is not known with certainty, but two years later, in April 1961, the remains of the abandoned station were seen and photographed by the R.C.A.F. at 70°28'N. and 67°30'W., i.e. about sixteen miles east-southeast of Cape Christian, Baffin Island. The floe had either turned west and drifted southward down Nares Strait; or it had turned east and drifted down the east and back up the west coast of Greenland. Available evidence strongly suggested that the first possibility was the more likely one.⁵⁴ The buildings that were left were perched upon pillars of ice in such a way that it could be estimated that about ten to twelve feet of surface ice had been lost through melting; but what thickness of ice had been added on the bottom was not ascertained.⁵⁵

NP-8 was established in April 1959 on an ice floe approximately five miles in diameter and ten feet thick, at 76°N. and 163°W. The station was maintained for almost three years, until March 1962, during which time it drifted to 83[0] N. and 133[0] W. The plan apparently had been to continue the occupation for another year, since the floe was now in a region close to the Canadian arctic islands which the Soviet drifting stations had not as yet traversed; but breakup of the floe necessitated abandonment.⁵⁶

Station NP-9, set up in April 1960, was placed on a floe at 77°N. and 164°E. Measuring only about one by two miles, and being somewhat less in thickness than most of the other floes used as drifting stations, this one was occupied for only about one year, until May 1961. By this time it had drifted to 87°N. and 176°W. As with NP-8, breakup of the floe compelled premature evacuation.⁵⁷

⁵⁴ Moira Dunbar, "The Drift of North Pole 7 after Its Abandonment," *The Canadian Geographer*, VI, Nos. 3-4 (Winter, 1962), 129-142, esp. 141.

⁵⁵ Ibid., also N. V. Mustafin, "Ol dine stantsii Severnyi Polius-7," *Problemy Arktiki*, No. 5 (1958), 127, trans. by R. Flagg as "The Ice Floe of Station North Pole-7(1960); *The Polar Record*, issues previously cited; *The Polar Times*, as previously cited, also NO. 48 (June, 1959), p. 12; No. 53 (Dec., 1961), p. 13.

⁵⁶ *The Polar Record*, as previously cited, also 10, No. 69 (Sept., 1961) 616617; 11, No. 72 (Sept., 1962), 278-279; *The Polar Times*, as previously cited, also No. 54 (June, 1962), p. 26.

⁵⁷ *The Polar Record*, as previously cited, *The Polar Times*, No. 50 (June, 1960), p. 9.

NP-10 differed from all its predecessors in that it was set up by ship rather than by aircraft. By summer 1961 NP-8 was the only station functioning, and, a second one being desired, the atomic icebreaker *Lenin* was assigned the task of smashing through the ice north of Wrangel Island to the desired location. This was successfully accomplished in October, and the occupying party and their supplies were deposited on solid ice at 75°N. and 177°E. The occupation was maintained for between two and three years, the personnel being evacuated at the end of April, 1964. By this time they had drifted to almost 89°N. and 115°E., very close to the North Pole. As a result of his experiences in delivering the occupying party in 1961, Captain Sokolov of the *Lenin* came to the conclusion that no point in the Arctic Ocean was now inaccessible by sea, and that his ship was capable of reaching any location in it at any time of the year.⁵⁸

The enforced abandonment of NP-8 in March 1962 led to the establishment of a replacement station, NP-11, a month later, at 77°N. and 167°W. NP-11 was occupied for a year, until April 1963, by which time it had drifted to 81°N. and 139°W., and had been placed in a position of great danger by splitting and other damage to the floe upon which it was located. This was the Soviet station which was visited by an American plane while en route to ARLIS II in May 1962.⁵⁹

In line with Soviet policy to have at least two drifting stations in operation at any given time, NP-12 was established in May 1963 as a replacement for NP-11. Its position at the time of occupation was 76°30'N. and 165°W.; the station was maintained for almost two years, until April 1965, by which time it had drifted to 81°N. and 146°W.⁶⁰

To replace NP-10 Station NP-13 was established in April 1964 at 74°N. and 166°W. It was maintained for three years, the crews being changed and new supplies being sent in by air on several occasions. The station was evacuated in April 1967, in a situation of danger, as by this time it had drifted to 88°N. and 4°W., and, badly broken up, was headed toward the Greenland Sea.⁶¹

NP-14 was established in May 1965 at 75°N. and 175°W., on an ice floe

⁵⁸ *The Polar Record*, as previously cited, also 11, No. 75 (Sept., 1963), 722723; 12, No. 79 (Jan. 1965), 413-414; *The Polar Times*, No. 54 (June, 1962), pp. 26, 27.

⁵⁹ *The Polar Record*, as previously cited; *The Polar Times*, as previously cited, also No. 56 (June, 1963), p. 29; Weeks and Maher, op. cit., pp. 129-130.

⁶⁰ *The Polar Record*, issues previously cited, also 12, No. 81 (Sept., 1965), 743; *The Polar Times*, as previously cited, also No. 58 (June, 1964), p. 28.

⁶¹ *The Polar Record*, as previously cited; also 13, No. 87 (Sept., 1967), 779; 14, No. 91 (Jan., 1969), 489.

measuring somewhat more than 1x2 miles. Severe damage to the floe compelled evacuation in February 1966, under difficult circumstances and in total darkness, not far from Henrietta Island.⁶²

Thus by 1965 the Russians had set up fourteen major drifting stations, all of them, with perhaps one exception, on ice floes. Their experiments continued, and by 1970 they had established at least six more, NP's 15, 16, 17, 18, 19, and 20, which were maintained for varying duration. One of these, NP-18, was on a large ice island about forty square miles in area and one hundred feet in thickness, having been brought there by ship in October 1968, when the ice island was at 75°N. and 165°W.⁶³

The foregoing summary has not attempted to trace the record of American and Soviet drifting stations beyond approximately the late 1960's. It should be noted, however, that both American and Russians have continued this kind of activity into the 1970's without apparent let-up. Increasing experience and improving technology have simplified the problems of maintaining the stations, and the result obtained are such that it is most unlikely there will be in the near future a complete abandonment of effort by either side. Fortunately very little unpleasantness has arisen in the course of carrying on these programs, and, although contact between Russians and Americans had been limited, such meetings as have occurred have been amicable. In 1972 several Soviet scientists visited two U.S. drifting stations, and the atmosphere was very cordial, being marked chiefly by mutual interest, curiosity, and good humor.⁶⁴ It would seem that on balance the drifting stations have helped in a small way to reduce, rather than to intensify, the chill of the Cold War.

[Chart entitled "USSR Drifting Stations: 1937-1965," originally located here, now attached as Annex 2]

Ice Shelves, Ice Island, and Ice Floes in International Law

In the foregoing pages I have attempted to give some of the principal details about ice shelves, ice islands, and ice floes in the north polar regions, and also about the scope of activities, mainly Russian and American, upon them. The status in international law of these formations is not readily or automatically discernible; and when they are put to use for human purposes, as had been increasingly the case now for a considerable number of years, problems which

⁶² *The Polar Record*, as previously cited; *The Polar Times*, No. 62 (June, 1966), p. 21.

⁶³ *The Polar Record*, esp. 14, No. 91 (Jan., 1969), 489; 15, No. 94 (Jan., 1970), 53; 15, No. 98 (May, 1971), 723; 15, No. 99 (Sept., 1971), 878.

⁶⁴ S. Olenicoff, "Soviet Visit to United States Drifting Stations, 1972," *The Polar Record*, 16, No. 105 (Sept., 1973), 847-848.

were formerly not even visualized may easily arise. It would doubtless be easy to exaggerate the potential gravity of such problems; but all the same, and particularly if note is taken of certain disturbing events which have already transpired, it is apparent that the uncertainties about the legal status of these icy monsters should, if possible, be resolved.

On the whole it may be said that ice shelves, at least in the north polar region, are a small and relatively unimportant phenomenon, probably declining in potential significance because there are only a few of them and the largest, that on the north shore of Ellesmere Island, is in a process of disintegration. Because this disintegration is removing the major source of the ice islands, and because of apparent climactic trends, the ice islands also would appear to be a declining phenomenon, although their strength and solidity are such that those remaining, and any others that may detach themselves, might continue to drift around in the Arctic Ocean for a very considerable number of years. Thus their role for the future is rather hard to foresee. In any case it is limited by their comparative rarity, and also by their imposition upon potential users of the vagaries of their location and drift. This last-mentioned limitation applies in equal measure to ice floes, but on the other hand ice floes are ubiquitous and plentiful, there is little danger that in the near future they will become less so, and to a large extent they make up in numbers and availability what they lack in permanence. The indications are that temporary occupation and use of ice floes can continue for the foreseeable future. It is in this broad context, and with these basic features in mind, that a legal assessment of the various ice formations in the high Arctic should be made.

The fundamental problem is whether they should be treated legally as land or as water. Obviously they bear certain resemblance to both, but are not identical in all respects with either. Chemically they are the same as water, although in a frozen state; while physically they are more comparable to land, since they are large solid substances upon which men and even planes can land, and upon which many activities, normally land-based, can be carried out. Authorities who stress the former characteristic are generally inclined to take the view that these formations, like the high seas, cannot rightly be subjected to a state's sovereignty. Those who stress the latter characteristic, on the other hand, are likely to hold that they can be, at least to the extent that they can genuinely be brought under occupation. A third and somewhat intermediate point of view is that since they are obviously not identical in all respects with either land or water, then it does not make sense to treat them categorically as if they were either one of the other. Those who take this stand usually maintain that the evident differences between ice and either land or water have not yet been properly taken into account by international law, with respect to the polar

regions, and that there is a gap here which needs to be filled.

Speaking generally of arctic ice formations and their status in international law, it is evident that a fairly clear-cut distinction can be made on the basis of whether they rest upon land or upon salt water. Ice resting upon land poses no problem, since it is automatically subject to the sovereignty of the state that owns the land below it; and thus the status of the Greenland icecap or the permanent ice above.

Ellesmere Island is no more in doubt than is that of the permanent ice on the Rocky Mountain tops in Canada or the United States. But the status of ice resting upon the surface of arctic salt water is not so easy to determine, and here is where problems may arise. Such problems are immediately subject to complication by the entire mixed and mixed-up bag of recent and current issues involving such things as territorial waters, straight base lines, archipelago waters, fisheries and pollution protection zones, the sector principle, and so on. Thus questions, both theoretical and practical, involving the legal status of floating ice formations in arctic waters, may become very involved indeed.

Ice Shelves

In the circumstances outlined above it does not appear that ice shelves in the north polar regions are likely to become a matter of great concern, either to Canada in particular or to arctic states in general, so far as legal questions are concerned. It should be noted in passing, however, that in the Antarctic they pose a much greater problem, both actual and potential, primarily because in that region they are so much more numerous and extensive. The Ross Ice Shelf alone, lying within the sector claimed by New Zealand, constitutes the largest mass of its kind in the world, with an area variously estimated at 130,000 square miles,⁶⁵ 160,000 square miles or “over one and a half times the size of New Zealand”,⁶⁶ and 212,000 square miles or “as large as France”.⁶⁷ Its thickness is said to range from 500 to 1500 feet. The legal problems posed by the Antarctic ice shelves have for some years now engaged the attention of international lawyers, government officials, and others.⁶⁸ On the other hand the arctic ice shelves have

⁶⁵ L. B. Quartermain, *South from New Zealand* (1964), p. 11, cited in F. M. Auburn, “The White Desert,” *The International and Comparative Law Quarterly*, 19 (April, 1970), fn. 31, 124.

⁶⁶ I. L. M. Richardsons, “New Zealand’s Claims in the Antarctic,” *New Zealand Law Journal*, XXXIII, No. 3 (Feb. 19, 1957), 40.

⁶⁷ A. S. Helm and J. H. Miller, *Antarctica* (1964), p. 152, cited in Auburn, “The White Desert” (fn. 65 above), fn. 122.

⁶⁸ E.g., see F. M. Auburn, *The Ross Dependency* (The Hague: M. Nijhoff, 1972).

aroused little legal comment,⁶⁹ probably because they comprise only the Ellesmere Island ice shelf or shelves and a few other, smaller ones, on the coasts of Greenland, Spitsbergen, and a few of the Russian arctic islands, notably Franz Josef.

There appear to be no firm rules respecting the status of ice shelves in international law. However, some interesting opinions have been offered on the subject from time to time; and also a certain amount of precedent and guidance emerges from state practice, treaties, etc. An early opinion of some relevance was that of Louis Rolland, who shortly after the turn of the century discussed the jurisdictional problems arising from the establishment of a gaming house on the ice just beyond the limits of Alaska territorial waters, near Nome, and the assumption of authority to deal with it by U.S. officials. If the ice was permanent and joined throughout its length with the land, said Rolland, the littoral state could act as its territorial sovereign. He was not speaking specifically of shelf ice, it is true, but surely he would have held the same opinion even more strongly if he had been.⁷⁰ In an article published in 1909 Rene Waultrin said that perfectly immobile ice, such as might exist near the poles, could undoubtedly be appropriated.⁷¹ Evidently he was uncertain about the nature of the ice near the poles. A year later T. W. Balch recognized that the continual motion of the ice near the North Pole would make permanent occupation difficult; nevertheless he seemed to suggest that genuinely immobile ice was subject to appropriation.⁷²

As might be expected, Russian and pro-Russian writers have generally taken a favorable attitude towards the susceptibility of ice shelves and like formations to appropriate and rights of sovereignty. Leonid Breitfuss, propounding in 1928 a division of the Arctic into five sectors, said that within these sectors "sovereignty is to be exercised not only on the dry land, but also in a certain measure, still to be determined internationally, upon the waters, covered wittice-fields, which touch

⁶⁹ Except by a few including Donat Pharand, who dealt with them in some detail in "The Legal Status of Ice Shelves and Ice Islands in the Arctic," *Les Cahiers de Droit*, 10 (1969), 461-475, which was incorporated with changes and additions as Part V in his book *The Law of the Sea of the Arctic* (Ottawa: University of Ottawa Press, 1973), pp. 181-204.

⁷⁰ L. Rolland, "Alaska-Maison de jeu etablie sur les glaces au dela de la limite des eaux territoriales," *Revue generale de droit international public*, XI (1904), 341-345.

⁷¹ R. Waultrin, "Le probleme de la souverainete des poles," *Revue generale de droit international public*, XVI (1909), 655-656.

⁷² T. W. Balch, "Les regions arctiques et antarctiques et le droit international," *Revue de droit international et de legislation comparee*, 2[e] series, XII (1910), 434-435; evidently a translation of T. W. Balch, "The Arctic and Antarctic Regions and the Law of Nations," *The American Journal of International Law*, 4, No. 2 (April, 1910), 265-275.

these lands and islands...”⁷³ Obviously this would encompass ice shelves. About the same time W. Lakhtine, noting that immovable ice fields are used for land communication and air stations, etc., expressed the opinion that “ice formations that are more or less immovable should enjoy a legal status equivalent to polar territory,” i.e., polar states would automatically “acquire sovereignty over them within the limits of their sectors of attraction.”⁷⁴ E. A. Korovin had already reached a similar view, including “ice blocks” within what was declared to be U.S.S.R. territory by the sector decree of April 15, 1926.⁷⁵

Discussing specifically the Ross Ice Shelf in his 1931 treatment of polar sovereignty, Gustav Smedal raised the question of whether a distinction should be made between that part of the shelf resting on land and the part resting on water, and answered it as follows:

...the question is least difficult to answer with regard to that part of the Barrier which rests on solid ground. It must be put on a par with a land territory, and it can be occupied. Doubts arise when the question affects that part of the Barrier which is afloat. We are of opinion that since there is no natural border line between the two parts of the Barrier, and as the latter appears externally as a whole, the same principle should apply to the whole extent of the Barrier.

In appearance it resembles a land territory rather more than a sea territory. At the Barrier edge all navigation obviously ceases. In this instance it is difficult to plead the considerations that have formed the rule that the sea cannot be made subject to the sovereignty of a State. We are, therefore, of opinion that good reasons favour the view that the Ross Barrier should be regarded as land and can be the object of sovereignty.⁷⁶

C. H. M. Waldock commented briefly on polar ice in general and Antarctic shelf ice in particular in his comprehensive 1948 article on the Falkland Islands Dependencies:

On the legal issue, the opinion may be hazarded that, even if the Court were to reject the possibility of occupying the land less frozen seas

⁷³ L. Breitfuss, “Territorial Division of the Arctic,” *The Dalhousie Review*, VIII, No. 4 (Jan., 1929), 467. (Trans. from original German by M. B.A. and R. M. Anderson).

⁷⁴ W. Lakhtine, “Rights over the Arctic,” *The American Journal of International Law*, 24, No. 4 (Oct., 1930), 712.

⁷⁵ Cited in *ibid.*, p. 712.

⁷⁶ G. Smedal, *op. cit.*, pp. 30-31.

of the Arctic, it might well recognize sovereignty over Antarctic lands as including the shelf-ice. This ice is a mere projection of the land and, indeed, it is not clear how much of the ice is purely frozen sea and how much rests upon a land base.⁷⁷

In his 1957 work on New Zealand's Antarctic claims Ivor Richardson, whose attention was naturally directed most particularly to the Ross Ice Shelf, took a similar view:

....where a permanent surface of ice extends from the coast outwards over the sea, it resembles land territory more than sea territory. Thus, even though the ice is made of water, it should not be treated as part of the high seas or territorial waters....

....It seems to the writer that, as there is no natural boundary between those parts of the Barrier which are afloat and those which rest on solid ground, and as the whole ice-mass externally represents a continuation of the Antarctic continent, then the whole of the Barrier should be treated as territory subject to rights of sovereignty.⁷⁸

Although concerned chiefly with the uncertain legal position of Americans serving in Antarctica, Richard Bilder expressed a similar opinion in 1966 respecting the ice shelves:

It would seem reasonable to construe pack ice, which melts and breaks out to sea in the spring, as "high seas"....Its physical state is temporary and it occupies areas normally part of the high seas. Moreover, it is clearly not subject to territorial claim by any state, and no particular territorial jurisdiction is applicable.... On the other hand, the permanent ice shelves are physically and functionally an extension of the continental ice cover, and there seems little reason to view them differently from the continent itself....⁷⁹

Writing on Canada's arctic claims in 1962, and commenting on the difference between ice islands and "landlocked ice", Squadron Leader Donald Inch said with reference to the latter:

⁷⁷ C. H. M. Waldock, "Disputed Sovereignty in the Falkland Islands Dependencies," *The British Year Book of International Law*, XXV (1948), 318.

⁷⁸ I. L. M. Richardson, *op. cit.*, p. 40.

⁷⁹ R. 13. Bilder, "Control of Criminal Conduct in Antarctica," *Virginia Law Review*, LII, No. 2 (March, 1966), 252.

Shelf ice, on the other hand, is indistinguishable from the ice covering the land itself. Since there is no borderline between the ice covering the land and seaward ice, and the shelf appears externally as a whole, the same principle should be applied to the whole, and sovereignty extended to the tide crack, if any.⁸⁰

Although not naming ice shelves as such, C. John Colombos took a hard view of the concept of sovereignty over “perpetual ice” bordering coasts. Presumably this would amount to about the same thing, or at least would include ice shelves:

It will be sufficient for the safety of the littoral state of its rights are extended to the supervision of the ice-pack within the limits of the territorial sea, for instance, by forbidding communication between the part under its sovereignty and the rest of the frozen surface. The question of coasts bordered by perpetual ice does not likewise present any special difficulty. The doctrine advanced by Russia in 1911 that the territorial waters should be measured “from the extremity of the standing ices bordering the coast” is unacceptable as it would extend the limit of marginal belt to a considerable width.⁸¹

F. M. Auburn dealt with the Ross Ice Shelf in detail in 1970 while discussing more broadly New Zealand's claim to the Ross Dependency, and, after discussing a number of earlier opinions and rejecting some of them, suggested that “the Ross Ice-Shelf is subject to national appropriation... because, in the absence of any customary rule of international law, or international agreement, restrictions upon the independence of States cannot be presumed.” It seems to me that this is an extremely dangerous proposition, partly because of the obvious confusion between the “independence of States” and their rights of appropriation, and partly because it might open a Pandora's Box of such actions which, although not expressly forbidden by rule or agreement, might nonetheless be utterly unreasonable. We are learning these days that there are all kinds of new steps in international law and international affairs generally, good ones which cannot be legalized, and bad ones which cannot be prevented, precisely because it is so very difficult for the world community to frame rules or reach agreements covering them. The justifications for appropriation which the

⁸⁰ S/L D. R. Inch, “An Examination of Canada's Claim to Sovereignty in the Arctic,” *Manitoba Law School Journal*, 1, No. I (1962), 53

⁸¹ C. John Colombos, *The International Law of the Sea*, 6th rev. ed. (London: Longmans Green and Co., Ltd., 1967), p. 129.

author rejects or casts aside-it is akin to *terra firma*... it may be beneficially used... a stable, installation may be established on it....” - appear to me to be much more valid.⁸²

In his above-mentioned work Donat Pharand, after observing that there appears to be a consensus among interested states that ice shelves ought to be considered as land, remarked that evidently the only ice shelves in the Arctic which could cause a legal problem in the delimitation of territorial waters, etc., are those on the north coast of Ellesmere Island and on the east side of the Svalbard archipelago. Noting the minor nature of the possibly legal problems in each case, he suggested that, because of the extensive disintegration of the Ellesmere Island ice shelves and the presence of Ward Hunt Island to form part of the baseline, it would be somewhat unrealistic for Canada to assimilate the remaining ice shelves to land in the measurement of its territorial waters north of Ellesmere Island.” However, because of the size and apparent permanence of one of the Svalbard ice shelves - that of the southeast coast of Nordanslandet - “it would seem only normal that Norway be allowed to assimilate it to land in the drawing of the territorial waters off that island.”⁸³

Other opinions could be cited, but there is no need to labor the point. It is obvious that among authorities who have dealt with the problem there is a heavy preponderance of opinion in favor of the susceptibility of ice shelves to sovereignty.

The Antarctic Treaty of December 1, 1959, was framed in such a way as to suggest that the participatory states, at least for the purposes of the treaty, considered ice shelves as being assimilated to land. Article VI of the treaty was worded as follows:

The provisions of the present treaty shall apply to the area south of 60° South Latitude, including all ice shelves, but 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.⁸⁴

There appears to be a certain imprecision in the meaning of the word “area” as used (twice) in the article. First it would seem to encompass everything

⁸² F. M. Auburn, “The White Desert,” pp. 243-244 (supra).

⁸³ D. Pharand, *The Law of the Sea of the Arctic*, pp. 181, 187-188.

⁸⁴ The text of the treaty may be seen in *The American Journal of International Law*, 54, No. 2 (April, 1960), 477-483.

south of 60°S., including ice shelves; but then any effects upon the rights of participatory states in the high seas therein are specifically excluded. Then was it to be taken as applying only to land territory, territorial waters, and ice shelves south of 60°S?

A somewhat similar vagueness is to be found in the New Zealand Antarctica Act of 1960. Evidently following the Antarctic Treaty, Section 2(1), defining terms used, says that "... unless the context otherwise requires, - "Antarctica" means the areas south of sixty degrees south latitude, including all ice shelves in that area...". Later, however, Section 7 (1) says that "Nothing in this Act shall limit, affect, or extend the jurisdiction of any New Zealand Court under any enactment or rule of law in respect of acts done or omitted on the high seas within Antarctica."⁸⁵

It is noticeable that although the act deals primarily with the Ross Dependency, and mentions it frequently, no attempt is made to define it, to specify whether the Ross Ice Shelf is included within it, or to proscribe any boundaries for the ice shelf.

Speaking specifically of the Ellesmere Island shelf ice, it is evident that if it were assimilated decisively to water rather than land, under the old three-mile rule a large proportion of it would have been left outside Canada's jurisdiction, certainly prior to the extensive breakaways in the early 1960's, and to a lesser extent afterwards. On the other hand the twelve-mile limit would apparently place all known ice shelves in this region, both past and present, inside territorial waters; and this would undoubtedly be the case if the twelve-mile limit were applied in conjunction with straight baselines. Of course, the sector principle, if applicable to ice and water as well as land, would dispose of the entire problem in pleasantly simple, if unpleasantly challengeable—fashion [sic].

On the whole it would seem essentially right to treat permanent or quasi-permanent ice shelves as comparable to *terra firma* and thus vulnerable to sovereignty, either actual or potential according to the particular situation. In cases where there is clear sovereignty over the subjacent and adjacent land, e.g. Canada's Ellesmere Island, the ice shelf would automatically fall under this sovereignty. In cases where the ownership of the land is uncertain, as with the Antarctic sectors, the bordering ice shelves would reflect this uncertainty. If or when sovereignty over the land is clearly established and recognized, sovereignty over the ice shelves would follow as a matter of course, (Question: What would happen, however, if a state undertook to establish sovereignty over and ice

⁸⁵ *The Statutes of New Zealand* (1960), No. 47, pp. 347-351. *The Antarctica Act* (Oct. 21, 1960). F. M. Auburn comments on this point and related matters in considerable detail in his "The White Desert," p. 244 ff. (supra).

shelf or a portion of one, independently of and without regard for adjacent land, which is not clearly under any state's sovereignty?)

It might be argued that a distinction should be made between ice shelves which develop from the glacial action of land-based ice, those which develop from the freezing of sea water and also those which are formed through some combination of the two processes. However, it is difficult to see how this would affect the vulnerability to sovereignty, in their entirety, or large, thick ice shelves which give every indication of great durability, mainly because it would be so difficult to distinguish one kind of ice from another in any decisive or meaningful way. It is evident, of course, that recognition of the susceptibility of ice shelves to sovereignty would mean, to a greater or lesser degree, shifting outer boundaries.

Ice Islands

The foregoing has had reference primarily to ice shelves. When large chunks of shelf ice break off and float away as ice islands, however, quite another situation is created. If the status of ice shelves in international law is involved and unsatisfactory, that of ice islands is probably even more so. Nevertheless ice islands also have provoked surprisingly little legal discussion, at least prior to the bombshell of the *Escamilla Case* in July 1970. Even this case, which certainly pinpointed and highlighted the potential areas of controversy, failed to stimulate the volume of comment and discussion which might have been expected, no doubt because Canada chose to handle the matter in such a way as to reduce to a minimum the likelihood of any direct confrontation with the United States. Thus the touchy issues which have been lurking in the background ever since occupation of ice islands began are still there; and the fact that the *Escamilla Case* did little to resolve them should not obscure the very real possibility that they might be brought into full view in some other situation, in such a way that efforts to dispose of them might provide some unwanted open disagreement.

The identification of ice islands as such in the late 1940's, and occupation of them starting in the early 1950's, gave a new dimension to legal problems concerning the status of floating ice in polar waters. For one thing, this development categorically removed any lingering doubts as to whether genuine physical occupation of any of this floating ice was practical possibility. The ice islands were in fact being occupied, and that was decisive.⁸⁶ Settlement of this basic physical question gave increased urgency to the basic legal question, i.e., whether

⁸⁶ Cf. C. C. Hyde's remark of some years ago respecting sovereignty over polar areas in general (*International Law*, 2nd rev. ed. 1945, I, 347): "Whether the polar areas as such may be subjected to rights of sovereignty appears no longer to be a moot question. States are in fact asserting that they may be; and that is decisive."

these ice islands might be subjected also to any form of genuine sovereignty, and if so, under what conditions or limitations. The answer to this question hinges largely upon resolution of the fundamental problem which had already been posed with respect to arctic ice formations generally - shelf ice, ice floes, and pack ice as well as ice islands - i.e., should international law look upon them as water, or as land, or as a third substance not completely identical with either one or the other? So far as ice islands are concerned there is certainly no unanimous view, but a few opinions may be cited.

Oscar Svarlien took the hard, unqualified position that all floating ice formation must be treated legally as if they were precisely the same as water:

The fact that the Arctic Ocean is in greater part covered with ice of various formations does not justify its assimilation to the land surface of the globe The floating ice formations, of whatever classification must form as legal point of view be regarded as a part of the ocean itself.⁸⁷

W. W. Bishop of the University of Michigan Law School questioned the susceptibility of ice islands to territorial sovereignty, in a footnote in his case book of international law which read as follows: - "the question may be asked whether large floating "ice islands" in the Arctic may be subject to territorial sovereignty when expeditions remain in occupation of them for considerable periods." However, he did not pursue the question further, except for citing a couple of references, and did not, at least on this occasion, offer any opinion that might have suggested an answer.⁸⁸

Donald Inch thought that:

...there should be some difference between ice islands and landlocked ice. Ice islands are capable of supporting occupation, as stated above, and therefore as limited degree of control may be exercised over these islands by the occupying power. Should the floating ice islands enter territorial waters they would, however, be subject to the jurisdiction of the local sovereign authority...

⁸⁷ Svarlien, "The Legal Status of the Arctic," *Proceedings of the American Society of International Law*, 52nd annual meeting (Washington, D. C., Apr. 24-26, 1958), pp. 142-143. See also O. Svarlien, "The Sector Principle in Law and Practice," *The Polar Record*, 10, No. 66 (Sept. 1960), 248-263, at 261, where he takes the same stand in almost identical terms.

⁸⁸ W. W. Bishop Jr., *International Law: Cases and Materials*, 2nd ed. (Boston: Little, Brown and Company, 1962), p. 355, fn. 15.

...it is suggested that International Law may recognize an exclusive claim to sovereign rights exercised by a state occupying an ice island for the duration of its occupancy; such rights to terminate on vacating the island, except for short periods due to emergency which would not be construed as a factual vacating of the island, Ice islands floating or grounded in territorial waters, however, would be subject to the sovereign jurisdiction of the local state, which must be able to deal with the problem of shipping as seems appropriate.⁸⁹

Andreas Ronhovde, in commenting on the Escamilla case, acknowledges that some years ago he found it tempting to make a sort of analogy between occupiable floating ice and an ordinary ship navigating the seven seas. Presumably under such an analogy an ice island would have approximately the same legal status as a ship, and would be subject to the same rules and regulations. Ronhovde admits, however, that he has become increasingly skeptical of such analogies.

The analogy route is tempting. In fact this writer, in an official memorandum written nearly thirty years ago, himself suggested the ship analogy treatment for occupiable ice in the Arctic Ocean. Later consideration has led him to increasing skepticism of legal analogies in general and of the ship analogy for ice islands or floes in particular.

Remarking that theoretical distinctions between jurisdiction over ice islands and jurisdiction over large ice floes seem legally insignificant, and that sector claims would only make settlement of the problem more difficult, he concluded by suggesting some kind of intergovernmental treaty or convention as the best solution, even if it were agreed to only by the circumpolar states.⁹⁰

Daniel Wilkes, commenting also on the Escamilla case and particularly on the unusual issues it raised, asked *inter alia* "why should the United States not treat ice islands as vessels?". He suggested that an argument against the idea would be that "the plain meaning of the word vessel has never included ice islands..."⁹¹

F. M. Auburn commented briefly on ice islands in the Arctic in his above-mentioned article published in 1970 (see fn. 65), but regarding their legal status

⁸⁹ D. R. Inch, *op. cit.*, p. 53.

⁹⁰ A. G. Ronhovde, "Jurisdiction over Ice Islands: The Escamilla Case in Retrospect," booklet published by the *Arctic Development and Environment Program of The Arctic Institute of North America* (Washington, 1972), pp. 13, 16.

⁹¹ D. Wilkes, "Law for Special Environments: Ice Islands and Questions Raised by the T-3 Case," *The Polar Record*, 16, No. 100 (Jan., 1972), 25-26.

did little more than indicate its continuing uncertainty.⁹² His later remarks on them, in connection with the Escamilla case, we shall look at presently in more detail. P. C. Dobell, in an article published in 1976, discussed ice islands briefly and raised a number of questions largely in connection with the Escamilla case, but felt that answers could hardly be given to the “thorny legal problem” posed by the ice islands until the Law of the Sea Conference had “drawn conclusions on some of the more basic questions”.⁹³ This might mean a long wait! In 1971 D.A. Cruickshank, also concerned primarily with the Escamilla case, evidently rejected both extremes for occupied ice islands (i.e., complete sovereignty or no sovereignty), saying “Extreme claims of complete sovereignty or complete freedom of the high seas are not reasonable for occupied islands such as T-3.”^{93a}

Donat Pharand, in a comprehensive article on ice shelves and ice islands which was published in 1969 and republished in very similar form in his book of 1973, stated that “the main question to examine is whether an ice island should be assimilated to land or to a ship.” He then went on to raise some interesting arguments and questions, which in brief summary were as follows. There would be an element of logic, he said, in looking upon ice islands as floating pieces of territory, since they are but fragments of ice shelves which may be legally assimilated to land. If this were accepted, all arctic ice islands might have to be conceded to Canada, since they all apparently come from Canada's Ellesmere Island. But, he asked, does an ice shelf fragment upon detaching itself become a *res nullius* and subject to territorial acquisition by the first occupant? And if so, does the new sovereignty continue as long as the occupation continues, regardless of where the ice island goes? He concluded, however, that it is not realistic to look upon ice shelf fragments as land once they have become detached, and that such an identification is even less realistic in the cases of ordinary ice floes, since they do not have a land origin. (One might ask parenthetically whether, assuming that it is illogical to look upon ice islands as pieces of territory once they have become detached and start drifting, it would again become logical to look upon them in this way if they become grounded in territorial waters.)

The foregoing seems reasonable enough, but Pharand would appear to be skating on thinner ice, or at least falling into a circular sort of reasoning, in his assertion that the 1958 Convention on the High Seas would make it unacceptable in international law to consider even an anchored or grounded ice island as the territory of an occupying state. He based this assertion specifically upon Article 2 of the Convention, which provides that “(t)he high seas being open to all nations,

⁹² F. M. Auburn, “The White Desert,” op. cit., pp. 241-242.

⁹³ P. C. Dobell, “The Policy Dimension,” in E. J. Dosman (ed.), *The Arctic in Question* (Toronto: Oxford University Press, 1976), p. 131.

⁹³ D. A. Cruickshank, op. cit., infra, fn. 100.

no State may validly purport to subject any part of them to its sovereignty.” But his primary question was whether and ice island should be assimilated to land or to a ship, and if it is to be taken, without reservation or qualification, that ice island are simply part of the high seas, then this question and the other questions he raises become largely irrelevant.

He is on stronger ground in pointing out that in 1958 both the Convention on the Territorial Sea and the Convention on the Continental Shelf made it clear that an island must be land if it is to be legally considered an island. The former specifies in its Article 10 that an island is “a naturally-formed area of land”, the latter states in its Article 5 that installations and devices constructed by states to explore and explicit the continental shelf “do not possess the status of islands.”

On the whole Pharand was most favorable to the idea of regarding ice islands as ships. Citing several opinions, notably Cmdr. Paul Frazier’s statement that ice islands are “nothing more than floating ‘ships of ice’ which must be supplied by air support”, he concluded with the suggestion that “ice islands ought to be considered as ships when occupied and appropriated. Such ice islands would be classified as public or private ships in the same way as ordinary ships are, depending mainly on whether or not they are engaged in the performance of public acts.” He added, however, that “if the use of ice islands should become extensive enough, it would be advisable for interested states to agree on a special convention governing such use.”⁹⁴

The differences in the several opinions just cited suggest strongly that there is as yet far from any unanimous view among legal authorities as to a satisfactory resolution of the problem of the legal status of ice islands, nor does it appear that the states which are directly or potentially affected have made any concerted effort to settle the question. Perhaps more by good luck than good management, neither ice islands nor the occupiable ice floes have as yet become a major cause of international dispute. However, it must be recognized that the potential for serious trouble has always been there, since, although these floating monsters are in some respects of minor importance in themselves, they are unavoidably bound up with, or are likely to raise, related issues of potentially very major significance, which may be very dangerous indeed. This may account in large measure for the apparent disinclination of interested states to come openly to grips with the problem; there may be an unspoken consensus of opinion that it is better to continue living as quietly as possible beside this particular keg of

⁹⁴ D. Pharand, *The Law of the Sea of the Arctic*, pp. 194-198; also “The Legal Status of Ice Shelves and Ice Islands in the Arctic,” *op. cit.*, pp. 473-475.

powder than to run the risk of setting it off. But failure to deal with the matter provides no real solution, and may in the long run only increase the difficulty of finding common ground for a satisfactory agreement.

Thus far, however, no solution had appeared; in fact it may be said that the problem seems to defy solution. The trouble is that no proposal, or plan, or ideas had yet come to light, which is free from obvious violations of logic and common sense, and which at the same time is adequate in itself to provide and answer. Or, at least if such as appeared, it has not won general acceptance.

These floating bodies of ice cannot reasonably be identified completely with either water or land, and it does not make much sense to argue that international law must necessarily treat any such formation as simply part of the high seas or, at the other extreme, as just another land mass. The problems and complications associated with their occupation and use are alone sufficient to destroy either notion. The plain fact is that ice, while similar in some respects to water and in other respects to land, is also different in certain respects from either; and no useful propose is served by a blind insistence that these differences should be passed over as if they did not exist. The real problem for international law is to determine what account should be taken for them.

The sector principle, which various Canadian officials have from time to time showed an inclination to invoke with reference to ice islands and ice floes, would obviously be inadequate and unsatisfactory as a means of resolving the issues at stake. Apart from the equally dubious status of the principle itself, the awkward result would be a sort of shifting or changing sovereignty, as the ice island or floe drifted into Alaskan, Russian, Norwegian, Danish, and Canadian sectors, in partly predictable and partly unpredictable fashion. It is difficult to visualize any outcome but confusion, instability, and uncertainty, which would be especially harmful to the valuable scientific work which experience had shown can be carried out on large floating bodies of ice.

Concession of full rights of sovereignty to an occupying state would also be likely to raise awkward problems, regardless of whether the occupations were temporary or permanent. If it were only temporary there would be little justification for the argument that sovereignty should endure after the occupying state had abandoned the site. Also, even if sovereignty were acceptable over an ice island in high arctic waters far from land, it would not be acceptable if, for example, a non-littoral state attempted to maintain its sovereignty over an ice island that began to drift through the narrow channels of the Canadian archipelago or along the Alaskan or Siberian coast, particularly if it became grounded. In any case the lives of ice islands and ice floes, especially the latter, are of limited duration, and

the question arises as to whether a recognized *de jure* sovereignty over such ephemeral bodies is a fitting solution.

On the other hand denial of any and all rights of sovereignty or proprietorship whatever does not appear to be a completely satisfactory solution, especially in the case of ice islands, mainly because they are so obviously susceptible to long term occupation and use. Long-term occupation and use will almost inevitably invoke on the part of the occupying state a feeling that it has in fact established certain proprietary rights of a *de facto* kind, and that these should not be ignored completely. Intrusions by other states would probably be resented, and yet in a “no sovereignty” situation such intrusions would be quite legal, so that a particularly desirable ice island might soon attract one or two or several more occupants. A set-up of this kind, unless regulated by prior agreement, would offer obvious potentialities for trouble. The most logical kind of prior agreement in this context would presumably be that the ice islands are to be treated as a sort of *res communis*, open for the use of all but the sovereignty of none. This might be feasible, except for the point just noted and also the fact that something different would be required if and when an ice island drifted into territorial waters.

The idea of giving the ice islands an unqualified, permanent association and identification with the ice shelf from which they originate does not appear to be very workable. Under this plan the legal status of an ice island would presumably reflect that of the parent ice shelf, and, assuming that sovereignty of the littoral state over the fixed ice shelf had been conceded, then sovereignty of the same state over the detached ice island would follow automatically. Thus the ice island identified so far would be, almost without exception, Canadian. Rather fanciful parallels to this concept may be found in claims that the fur seals which leave and return to the Pribilof Islands remain U.S. property while engaged in their annual migrations to southern waters, and that anadromous fish. e.g. west coast salmon, remain a Canadian or American natural resource even when far out at sea depending upon whether they leave, and return to Canadian or Alaskan rivers between annual spawning periods. With respect to ice islands, however, problems appear immediately which make this sort of notion difficult to apply. For one thing, it neglects completely the very real and practical differences between ice islands and ice shelf, that become apparent as soon as the former break off and float away, and it ignores whatever legal consequences should follow. Also, although the great majority of the ice islands have an Ellesmere Island origin, this cannot be taken for granted, and a Greenland or Spitsbergen origin is also possible. Presumably the onus would be on the claimant state to establish the source of all ice islands and this might be impossible to do. Again, this idea makes a categorical distinction between ice islands on the one hand and ice floes, which have a different kind of origin on the other, and in a practical sense once the ice islands are

adrift such a distinction may be quite unwarranted.

The ship analogy is attractive in some respects, but suffers from the draw-back that the movements of an ice island, up till [sic] the present time at least, cannot be controlled with any degree of precision and reliability as those of a ship can be. To treat an occupied ice island as a ship would be particularly inappropriate if and when it entered and especially if it became grounded in the territorial or internal waters of another state, since, unlike a ship, which is either in passage or docked for a limited time of usually specified duration, the ice island is likely to become a long-term or quasi-permanent fixture. Thus the concept of the right of innocent passage, for example, which is familiar for ships, would become impractical and unacceptable for occupied ice islands.

If any conclusion can be drawn from the immediately preceding paragraphs, it is that no foolproof solution to the problem of the legal status of ice islands has as yet made itself evident. No doubt it would be pointless to over-estimate the urgency of finding such a solution, but all the same the possibilities for confusion and dispute over ice islands have not diminished, in fact remain very real, and conjure up some rather unpleasant thoughts as to what the consequences of disagreement might be. Some of the involved situations which might arise have already been suggested, and others come readily to mind. Suppose, for example, an official or unofficial American party wished to maintain occupation of an ice island as it drifted or became grounded inside Russian territorial waters along the arctic coast of Siberia? Or vice versa, with a Soviet party drifting on an ice island inside Alaskan territorial waters? Suppose a Soviet party refused to abandon an ice island after it became inextricably caught in the waters of the Canadian Arctic Archipelago? Suppose a Soviet party attempted to set up a station on an ice island already occupied by Americans, or vice versa? Suppose Canada, or the U.S.S.R., demanded that a foreign party evacuate an ice island after it had drifted into her sector, relying on the sector principle as justification for the demand? Suppose any of the arctic states objected to foreign occupation of an ice island in the vicinity of her territory on grounds that the occupying party were carrying on activities that were illegitimate, or over-inquisitive, or threatening, or dangerous? Or that these activities violated acceptable or established standards with respect to the increasingly important factor of pollution, and thus constituted a threat to environment or ecology? Obviously there are many unpleasant possibilities of this kind, and the unlikelihood of some of them does not entirely remove their alarming aspect. The fact that no serious international disputes over ice islands have taken place gives no reason for complacency.

Up till [sic] the present time it does not appear that there had been any out-right claim to sovereignty over an ice island, in fact formal claims of any kind are

conspicuous by their absence. So, too, are formal arrangements or understandings to cover the situation. It is this latter feature which is most disturbing, since, if some kind of an eruption did occur, it would evidently be in a complete vacuum of prior agreement to take care of the problem. It is this vacuum that needs to be filled.

What, then, is the best answer? After looking at the complicated tangle of data and circumstances respecting the ice islands one tends to become increasingly dubious about the prospects of finding a single “best” answer that would satisfy all the requirements inherent in the situation. However, perhaps one can thread his way through the tangle and arrive at a reasonable compromise.

In general, it would seem that there are two broad approaches to the problem, one international and the other national. If an international approach were adopted, this would presumably create for the ice islands of the Arctic a situation somewhat comparable to that created for Antarctica by the Antarctic Treaty of 1959. Under that treaty, it will be recalled, the participatory states agreed that for its duration existing territorial claims would be put “on ice”, new ones and also all military activities would be prohibited, and the continent would be served for peaceful and scientific purposes only. If a similar plan were applied to the ice islands presumably claims to sovereignty over them would be barred, either temporarily or permanently; activities of a military nature would also be forbidden; and use of them would be confined to peaceful and scientific pursuits. Evidently such a scheme would depend for success upon application of the same sort of plan to high arctic waters and pack ice beyond territorial limits, which would thus be recognized as a kind of *res communis* open to the peaceful use of all but the sovereignty of none.

[This section remains classified under: s.15(1) and s.18. For details see the editor’s note in the Preface.]

This broad approach would leave certain details to be worked out, notably the adjustments and accommodation that would have to be made when an ice island entered the territorial waters of an arctic state, which then could not reasonably be denied appropriate rights of regulation and jurisdiction.

The other broad approach would be based upon the concept of, [sic] and would permit, some form and degree of jurisdiction over ice islands. In this connection, a few years ago, I wrote as follows:

... a more than temporary sovereignty of the occupying state is doubtful propriety, as an ice island may ultimately drift into the territorial sea or internal waters of another state. Here it is perhaps

more logical to think of an ice island not as analogous to land (which it certainly is in that it can be made into a well-equipped base with buildings and even airstrips), but rather as analogous to a huge ship or aircraft carrier. Under this analogy an ice island which has been occupied by one state but which has drifted into the territorial waters of another would remain the property of the former but would be subject to a measure of regulation by the latter. The analogy is doubtless far-fetched, however, and soon breaks down because the movements of an ice island, up till [sic] the present time at least, cannot be controlled as those of a ship can be. Even so, it seems better than the alternatives, and thus, if an ice island is subject to any form of sovereignty, it evidently must be possessed more or less as a ship is possessed.⁹⁵

It still seems to me that, given the premise that ice islands are susceptible to some form of jurisdiction, the above statement is reasonable, subject, however, to the additional qualification that if an ice island becomes inextricably caught in the territorial waters of another state the occupiers would have to give up their proprietorship. Also, whatever rights proprietorship existed would obviously be based upon occupation or physical possession; and it would be necessary to determine, if an occupant abandoned an ice island either voluntarily or through necessity, whether there should be any right of reoccupation, and if so during what duration of time. Another possible situation which would appear to warrant consideration would be that created if a party occupied an ice island in a private capacity, rather than on behalf of their government, and perhaps ran afoul of the designs of some other government in so doing.

In my judgment neither of the two broad approaches outlined above would be particularly satisfactory, if total reliance were placed upon it. However, it might be possible to devise a combination of the two that would be more workable. All things considered, the following strikes me as coming about as close as possible to this goal.

An international approach to the problem would be adopted to the extent that full-scale sovereignty over ice islands, whether of a temporary or quasi-permanent nature, would not be recognized. As with Antarctica under the Antarctic Treaty, military activities on the ice islands would be prohibited, and use of them would be limited to peaceful and scientific pursuits. Ideally there would be rights of visitation and inspection by other states. High arctic waters beyond

⁹⁵ Gordon W. Smith, "Sovereignty in the North: The Canadian Aspect of an International Problem," *op. cit.*, p. 249.

territorial limits, and pack ice therein which was not susceptible to genuine occupation, would not be subject to any sort of jurisdictional claim.

On the other hand, in recognition of legitimate state activity and achievement, an occupying state would have the right to establish, if it wished, not complete sovereignty over an ice island in international waters, but rather a temporary and exclusive right of occupation and use, more or less comparable to the automatic right of a state to exclusive exploration and exploitation of the adjacent continental shelf under the continental shelf convention. In the case of ice islands, however, this exclusive right would last only as long as the occupation itself lasted. If weather or some other such circumstance compelled or occasioned temporary evacuation of an ice island, there would be a right to reoccupy, during a reasonable period of time which would have to be determined. If an occupied ice island were simply drifting through the territorial waters of another state, it would be treated more or less like a ship in innocent passage, and thus, although free to pass through these waters, would nevertheless be subject to necessary or emergency regulation by the littoral state. If it became inextricably caught in these waters, it would become liable to a demand for abandonment on the part of the littoral state.

It will be noted that this plan is similar in essence to, although perhaps somewhat more detailed than, that put forward by Squadron Leader Inch.⁹⁶ It remains to observe that if this plan, or for that matter any other, were to have any applicability or utility it would have to be formalized in an agreement or convention, of the sort suggested by Pharand⁹⁷ and others. Presumably such an agreement or convention would need to involve only those states which are directly and currently interested, but it could be framed so as to permit accession of other states which might wish to become party to it at a later date.

The Escamilla Case

On the whole, as had been suggested, the occupation and use of ice islands had proceeded with a remarkable absence of major disruptions at international level and in an atmosphere astonishingly free of open disharmony, in spite of the almost complete absence of agreed rules to control the situation. However, on one occasion at least, the latent problems and the possibilities for disagreement were brought out into the open in highly dramatic fashion. This was the Escamilla case in 1970; and even though, as events turned out, the case itself settled little or nothing so far as the international issues are concerned, it is well worth examining as an illustration of the potential legal problems the ice islands pose.

⁹⁶ D. R. Inch, *op. cit.*, p. 53.

⁹⁷ D. Pharand, *The Law of the Sea of the Arctic*, p. 198.

For the most part the basic facts of the case were not hard to establish and are on the record. They were briefly as follows. On July 16, 1970, Bennie Lightsey (in some references spelled Lightsy), of Louisville, Kentucky, the leader of a 19-man joint government-industry research party on ice island T-3, was killed by a shot from a rifle in the hands of Mario Jaime Escamilla, a 33-year old technician from Santa Barbara, California. Lightsey was a negro [African American], Escamilla was Mexican-born, but they and all other members of the party were American citizens. The ice island, under American occupation continuously since 1952 except for two or three interruptions of varying duration, was drifting at the time at 84°45.8'N. and 106°34.4'W., i.e., in the so-called "Canadian sector" and approximately 200 miles northwest of the nearest land in the Canadian Arctic Archipelago. The fatal shooting was the outcome of a chronically troubled situation at the research station, which had been brought about by the uncontrolled consumption of locally-made wine and alcohol, and particularly by the excessive drinking and aggressive behavior of a third member of the party, the Eskimo Donald "Porky" Leavitt.

On the fatal day Escamilla was informed while at work by his roommate Charles Parodi that Leavitt had stolen some wine from their hut. Arming himself with a rifle from the common store, Escamilla returned to the hut, about one mile distant, to investigate. Leaving the rifle there, he found Leavitt and Lightsey in an adjacent hut, drinking a mixture of home-made wine, 190-proof ethyl alcohol, and grape juice. Hard words were spoken, and a short time later, after Escamilla had returned to his own hut, Lightsey went to him with intentions which do not seem to have been entirely clear, but which seem to have included some or all of the following - (1) to pacify the situation (2) to persuade Escamilla that Leavitt should have some of the wine (3) to get Escamilla to give up the rifle (4) to obtain some wine for himself. In the increasingly heated discussion which ensued Escamilla waved the rifle at Lightsey and ordered him from the hut, and then, in some way, the rifle discharged, wounding Lightsey, who died shortly afterwards in spite of efforts to save him. Although Parodi and Leavitt had each been present part of the time, there were no witnesses, except for Escamilla and Lightsey themselves, when the shooting took place.⁹⁸

After news of the fatality had been received by radio at Point Barrow, Alaska, an

⁹⁸ The basic facts of the case are summarized in *Federal Reporter, 2nd Series*, 467 (1972), 341-349. *U.S. v. Escamilla*, No. 71-1575. (Cited as 467 F. 2d 341 (1972)). See also Richard Halloran, "Technician Charged in Slaying on Ice Island in Arctic Ocean," *New York Times* article reproduced in *The Polar Times*, No 71 (Dec., 1970), p. 10; D. Pharand, "State Jurisdiction over Ice Island T-3: The Escamilla Case," *Arctic*, 24, No. 2 (June, 1971), 83-89; *The Law of the Sea of the Arctic*, pp. 199-204; Rear Admiral C.O. Holmquist, "The T-3 Incident," *U.S. Naval Institute Proceedings* (Sept., 1972), pp. 40-53.

official investigation party flew from the United States to the scene by taking a U.S.A.F. plane to Thule in Greenland and a helicopter the rest of the way, since a conventional plane could not land on T-3 during the slushy summer season. Completing their on-the-spot investigation in about 36 hours, the four-man party took Escamilla into custody and with him and Lightsey's body returned to the United States as they had come, by helicopter to Thule and the rest of the way by plane. Since their first landing on U.S. territory was at Dulles Airport in the Eastern District of Virginia, this became the venue of the trial.⁹⁹

In a preliminary hearing on July 30, 1970, at Alexandria, Virginia, where the U.S. District Court for the Eastern District of Virginia is located, Escamilla was charged with the murder of Lightsey, under maritime law pertaining to ships at sea. On September 14 a 23-man federal grand jury, meeting at Norfolk, Va., indicted him for second degree murder. He was tried before U.S. Federal District Judge Oren R. Lewis and a federal jury at Alexandria on May 5, 1971; and on May 10 the jury announced its verdict, finding him not guilty of second degree murder on the high seas, but guilty of the lesser offence of involuntary manslaughter on the high seas. He was sentenced to three years imprisonment in the custody of the U.S. Attorney General, a sentence that allowed for probation after as little as sixty days, and thus he was soon out on bail pending appeal of his case. The appeal was argued before three judges of the U.S. Court of Appeals, Fourth Circuit, in Richmond, Virginia, on December 9, 1971. This court, without reaching a decision, ordered reargument of the appeal before a full panel of circuit court judges at a later date. The reargument was heard on June 7, 1972, before six judges of the same Fourth Circuit Court, who in their decision on August 17 found sufficient deficiencies in the original district court trial to warrant remanding the case to that court for retrial. Escamilla was thus tried again on November 1-2, 1972, before the same judge and in the same court as had convicted him in May 1971, but on this occasion on the reduced charge of involuntary manslaughter. The new verdict, rendered on November 2, was "not guilty", and he was set free.¹⁰⁰

⁹⁹ "18 U.S.C.A. 4 3238 prescribes venue, in such circumstances, in the district into which an offender is first brought, although in a proper case, Rule 21 (b), F. R. Crim. P., authorizes a transfer of venue to another district." Quoted from *U.S. v. Escamilla*, 467 F. 2d 341 (1972), at 345, fn. 3.

¹⁰⁰ See the references in fn. 98, also *The Polar Times*, No. 71 (Dec., 1970), p. 11; No. 72 (June, 1971), p. 22; No. 75 (Dec., 1972), p. 13; A. G. Ronhovde, "Jurisdiction over Ice Islands: The Escamilla Case in Retrospect," *supra*; "The Escamilla Case in Court," *Arctic*, 24, No. 2 (June, 1971), 139; D. Wilkes, "Law for Special Environments: Ice Islands and Questions Raised by the T-3 Case," *supra*; , "Law for Special Environments: Jurisdiction over Polar Activities," *The Polar Record*, 16, No. 104 (May, 1973), 701-705; D. A. Cruickshank, "Arctic Ice and

The case turned out to be very complicated, and raised some complex issues of domestic and international law, which were for the most part left unsettled. The following pages attempt to summarize these issues, and how they were handled, or evaded.

The propriety of holding the hearing on the jurisdictional issue in Alexandria, Va., was not contested at the trial on May 5, 1971. If Canada had demanded jurisdiction of the case her objection to the venue and the proceedings would doubtless have followed as a matter of course; but since she did not make such a demand this issue did not come to a head. It has been suggested that Denmark also might conceivably have claimed jurisdiction because the first touchdown after leaving T-3 was on Danish territory;¹⁰¹ however this possibility must surely have been much more remote and thus hardly worthy of serious consideration.

What was argued at the trial on May 5, 1971, was the basic question of whether as U.S. court could rightly take jurisdiction over the Escamilla case. The arguments of the defence against U.S. jurisdiction, briefly summarized, were that T-3 was a unique object of Canadian origin floating within the Canadian "sector" and outside American jurisdiction, that the closest land was Canadian, and that the activities on the ice island were not of the sort that would bring it within the admiralty jurisdiction of the U.S. The defense cited U.S. legislation of 1856, authorizing the President to extend American jurisdiction to certain guano islands, as evidence that similar congressional legislation would be necessary to establish federal jurisdiction in the case of an ice island like T-3. It cited also at 1951 federal court decision (U.S. v. Cardozo) in the case of an alleged assault on passengers of a U.S. airliner above international waters, which found jurisdiction lacking because of the absence of such specific legislation. It argued further that the basic definition of the special maritime and territorial jurisdiction of the United States in the U.S. Code (Title 18, Sec. 7) could not be taken as an automatic assertion of federal jurisdiction in the matter.¹⁰² (Subsection 1 of Section 7, which is the relevant clause, states that this special jurisdiction includes" [t]he high seas, any other waters within the admiralty and maritime jurisdiction of the United States and out of the jurisdiction of any particular State, and any vessel belonging in whole or in part to the United States...when such vessel is within the admiralty and maritime jurisdiction of the United States and out of the jurisdiction of any

International Law: The Escamilla Case," *Western Ontario Law Review*, 10 (1971), 178-194; F. M. Auburn, "International Law and Sea-Ice Jurisdiction in the Arctic Ocean (Based on U.S. v. Escamilla)," *The International and Comparative Law Quarterly*, 22 (July, 1973), 552-557.

¹⁰¹ Ronhovde, "Jurisdiction over Ice Islands: The Escamilla Case in Retrospect," p. 15 (supra).

¹⁰² Ibid., pp. 1-2.

particular State.¹⁰³

The U.S. attorney, on the other hand, argued that T-3 was in fact “high seas” and thus Section 7 did give a basis for jurisdiction, that any connection of T-3 with Canada was irrelevant since the Canadian Government had specifically waived jurisdiction in the case, and that all occupation of and activities upon T-3 since its discovery, and all personnel there at the time of the shooting, were American. He maintained also that a renunciation of U.S. jurisdiction would, in the circumstances, leave the occupants of T-3 under no law whatsoever.¹⁰⁴

After hearing lengthy argument on the subject Judge Lewis announced from the bench his tentative decision to assume jurisdiction. However, he gave no detailed explanation of his grounds for making this decision, reserved the right to change it, rendered no written opinion about it, and indicated clearly that he would be happy to have the jurisdictional issue reviewed on appeal. Andreas Ronhovde, who heard all the proceedings, puts forward some suggestion as to what consideration brought the judge to the decision he made; these, however, correspond fairly closely to the main arguments advanced by the U.S. attorney. Ronhovde suggests, moreover, that one the Canadian waiver was on the record the judge preferred, if possible, to settle the jurisdictional issue and proceed with the case essentially on the basis of U.S. domestic law. Thus Lewis was not inclined to raise troublesome and involved question of international law, and these were not dealt with in any comprehensive way.¹⁰⁵

The Canadian Government sent a note about the case to the U.S. Government on July 31, 1970, and nine months later, on May 5, 1971 (the very day that the initial district court trial was conducted before Judge Lewis) sent its waiver in the following terms.

The Canadian Government continues to reserve its position on the question of jurisdiction over the alleged offence but would not object to having the drifting ice formation in question treated as a ship for the purposes of the particular legal proceedings concerned in order to facilitate the course of justice and if it is considered necessary for the purposes of the legal proceedings in question the Canadian Government hereby waives jurisdiction.¹⁰⁶

¹⁰³ U.S. Code (1970), Vol. 4, Title 18, sec. 7, subsec. (1), p. 4153.

¹⁰⁴ Ronhovde, “Jurisdiction over Ice Islands: The Escamilla Case in Retrospect,” pp. 2-3 (*supra*).

¹⁰⁵ *Ibid.*, pp. 3-6; also Ronhovde, “The Escamilla Case in Court,” *op. cit.*, p. 139; F. M. Auburn, “International Law and Sea-Ice Jurisdiction in the Arctic Ocean,” *op. cit.*, p. 553.

¹⁰⁶ Quoted in F. M. Auburn, “International Law and Sea-Ice Jurisdiction in the Arctic Ocean,” *op. cit.*, p. 555. See also D. A. Cruickshank, *op. cit.*, pp. 180-181.

Auburn criticizes this note, saying that it raised more problems than it solved; and he extends his criticism to Canada's behavior in the case generally. The U.S. had not asked for the waiver and had apparently removed Escamilla without giving notice to or getting the consent of Canada. The waiver was limited, in the sense that it conceded only that the ice formation might be treated "as a ship for the purposes of the particular legal proceedings," but there was no evidence the U.S. court had observed this limitation, and insofar as the court associated T-3 with the high seas it had directly attacked the sector theory. Canada had Attempted through the waiver to avoid the issue; but her note, and her over-all performance in the case, constituted a further step in her gradual retreat from her earlier, harder position respecting sea-ice jurisdiction and the sector theory, this retreat becoming apparent if one examines the Tootalik case in 1970¹⁰⁷ Canada's note to the LIS, respecting her new arctic legislation on April 16, 1970,¹⁰⁸ and the Arctic Waters Pollution Prevention Act itself on June 26, 1970,¹⁰⁹ In Auburn's view Canada had "passively admitted the questionable status of T-3," and, in sum, her attempt to avoid the issue could "hardly be termed as a success."¹¹⁰

When Escamilla's attorneys brought his conviction in the district court to appeal, they contended that Judge Lewis had erred in assuming jurisdiction, and also that there were errors in the trial itself which were sufficiently serious to warrant setting aside conviction. On the jurisdictional issue the six judges of the appeal court found themselves equally divided, and faced with this three-against-three impasse they could not, even if they had been inclined to do so overturn the decision which Judge Lewis had made in the district court, i.e., to take jurisdiction.¹¹¹ However, they were partly in agreement with the contention that there had been errors in the district court trial.

They rejected appellant's argument that the district court had abused its discretion in refusing to transfer the trial to the Central District of California, where he made his permanent home. They rejected also his claim that the district court

¹⁰⁷ (1970), 71 Western Weekly Reports 435. See also (1970), 74 W.W.R. 740, where the judge's conviction was reversed on appeal, although on grounds unrelated to jurisdiction. It is worth noting, however, that in the appeal case "counsel for the defence abandoned his ground of appeal claiming an excess of jurisdiction in the trial judge." See also F. M. Auburn, "International Law -Sea-Ice-Jurisdiction," *The Canadian Bar Review*, XLVIII (1970), 776-782.

¹⁰⁸ See in *International Legal Materials*, IX (1970), 607-615.

¹⁰⁹ *Statutes of Canada*, 18-19 Eliz. II (1969-1970), c. 47.

¹¹⁰ I have attempted here to extract the essence of Auburn's critical remarks on this aspect of the case in his article "International Law and Sea-Ice Jurisdiction in the Arctic Ocean" (supra).

¹¹¹ *U.S. v. Escamilla*, 467 F. 2d 341 (1972) at 343.

had erred in finding that brief oral testimony given by witness Charles Parodi to one of the investigating agents did not constitute a statement that should be accessible to defendant under the Jencks Act (18 U.S.C.A., S^s 3500).¹¹² However, they accepted unanimously his two other principal contentions. Regarding the first, that there had been deficiencies in Judge Lewis's charge to the jury, they found that it had been deficient in two serious respects. In the first place, he had failed to inform them that for conviction on an involuntary manslaughter charge it must be shown that defendant had knowledge that his conduct was a threat to the lives of others. (The key factor here was the rifle held by Escamilla, which government weapons experts testified was deficient and could easily discharge accidentally.¹¹³ In the second place, his charge to the jury had unduly restricted them in their consideration of the special circumstances prevailing on T-3, which might require a somewhat different legal view of standards of conduct from what would be customary in a more normal situation.¹¹⁴ Regarding appellant's other principal contention, the appeal court accepted his claim that the district court had abused its discretion in refusing to hear more than one of the only five character witnesses he was permitted to have.¹¹⁵

It was on these grounds that the Fourth Circuit Court sent the case back for retrial before Judge Lewis in the district court, with the outcome, as stated above, that he was acquitted.

As indicated the case raised a number of important issues, which have stimulated a certain amount of discussion. One significant comment was written by Daniel Wilkes, not long after Escamilla had been sentenced by the district court in May 1971. In his comment Wilkes took note of several "unusual" issues which had emerged because of the lack of clear law covering the case. The questions posed, and the answers he gave to them, are summarized below in paraphrased form.

Issue 1. If the U.S. Air Force operates the research station on T-3, why could not a military court try the case? (It might be noted that although the U.S.A.F. was first to occupy T-3, by 1970 most of the activity there was sponsored by the U.S. Navy.).¹¹⁶ Answer. - The part of the Uniform Code of Military Justice which put civilians attached to Air Force units under

¹¹² Ibid., pp. 345.

¹¹³ Ibid., pp. 345-347.

¹¹⁴ Ibid., pp. 347-348.

¹¹⁵ Ibid., pp. 348-349. See also A. G. Ronhovde, "Jurisdiction over Ice Islands: The Escamilla Case in Retrospect," pp. 6-8 (supra).

¹¹⁶ Holmquist, op. cit., pp. 46, 47, 48

ordinary courts martial was held to be unconstitutional because it took away a civilian's right to trial by jury. But, up to the time of writing the U.S. Congress had still not acted upon a Supreme Court suggestion that it enact a law giving civilian juries control over such cases.

Issue 2. Why could not the federal courts take jurisdiction using as justification simply the fact that Escamilla was a U.S. citizen? Answer. - Citizenship is used as a basis for extra-territorial jurisdiction only in special cases, and there was still neither a general nor a specific law giving extra-territorial jurisdiction on an ice island such as T-3.

Issue 3. If the U.S.A.F. operates the station on T-3, why could not a U.S. court treat the offense as having occurred in U.S. territory? Answer. - This involves the whole complicated question of the nature, degree and permanence of occupation required to establish sovereignty over polar areas generally and ice islands in particular. The United States has generally refused either to claim or to recognize other claims to water, floating ice, and unoccupied land in the polar regions.

Issue 4. Why could not the World Court try such offenses? Answer. - Because the World Court as constituted dealt only with states and international organization, not with individuals. (Wilkes observes that a few years earlier he had participated in a proposal for the federation of an international criminal court which could handle such cases.)¹¹⁷

Issue 5. Why should not a Canadian court try the case? Answer. - In spite of Canada's rather hazy sector claim and certain evidence that she does assert it, there is contrary evidence showing that she does not rely upon it, notably her failure to use it in her Arctic Waters Pollution Prevention Act in 1970. In any case, her waiver indicated her willingness to concede jurisdiction in the case to the United States.

Issue 6. If the U.S. can punish a murder committed on an American ship on the high seas, why should the U.S. not treat ice islands as vessels? Answer. - Granting that there is a certain measure of support for treating ice islands as vessels on the high seas within the meaning of Section 7 (1) of Title 18 of the U.S. Code, the defense could still argue that under an appropriately strict interpretation the word "vessel" had clearly never included ice islands, and Congress could not

¹¹⁷ F. J. Klein and D. Wilkes, "United Nations Draft Statute for an International Criminal Court: An American Evaluation," in G.O. W. Mueller and E.M. Wise, eds., *International Criminal Law* (South Hackensack, N. J.: Rothman and Co., 1965), pp. 526-587, esp. 582-585.

possibly have had ice islands in mind at the time when it framed this section of the Code.

Issue 7. Why should not jurisdiction over the high seas be read independently of any vessel requirement, lest the case go untried? Answer. - Although Judge Lewis's assumption of jurisdiction apparently accepted this proposition, at least by implication, it seems likely that there will continue to be cases such as this one which do not fall obviously within any jurisdiction. The means for dealing with such cases should be worked out before more of them arise.¹¹⁸

In his comments on the case *Donat Pharand* was primarily concerned about this issue of jurisdiction. He remarked that by general agreement there are four bases for the exercise of state jurisdiction in criminal cases such as *Escamilla* "territory, nationality, protection of special state interests such as security, and protection of certain universal interests permitting jurisdiction over crimes such as piracy."¹¹⁹ In the *Escamilla* case, he observed, the bases which had relevance were the first two, the territorial base primarily in relation to Canada, and the personal (nationality) base primarily in relation to the United States. With respect to the former, the question of Canadian jurisdiction hinged mainly on the validity of the sector theory, and whether it should apply to regions of water and ice as well as land. His opinion, briefly, was that the sector theory did not give a valid basis for territorial sovereignty and could not be used to claim jurisdictional rights over floating ice. Noting that the Canadian Government had waived exercise of jurisdiction rather than jurisdiction itself, he suggested that apart from the sector theory the only apparent basis for a Canadian claim of jurisdiction was the fact that T-3 had originally come from the Ellesmere Island ice shelf. However this basis, like the sector theory, had no legal validity.

With respect to the personal or nationality base, he observed that as a general rule territorial jurisdiction takes precedence over it. But in some cases there is no

¹¹⁸ D. Wilkes, "Law for Special Environments: Ice Islands and Questions Raised by the T-3 Case," pp. 23-26 (supra).

¹¹⁹ D. Pharand, *The Law of the Sea of the Arctic*, p. 201, also "State Jurisdiction over Ice Island T-3: The *Escamilla* Case," op. cit., p. 87. In an article dealing with the similar lack of provision for the handling of criminal cases in Antarctica, written several years before the *Escamilla* shooting occurred, Richard Bilder listed the same four "bases" as the chief jurisdictional "principles" which have met with broad international agreement, i.e., the "territorial", "nationality", "protective", and "universality" principles. He mentioned also two additional or supplementary principles, one granting a state jurisdiction over vessels or aircraft of its own registry, the other the more doubtful "passive personality principle" under which some states claim jurisdiction with respect to offenses substantially affecting their own citizens regardless of where committed or by whom. See R. B. Bilder, op. cit., pp. 271-273.

obvious territorial sovereignty, and if, for example, it is a ship at sea, jurisdiction over criminal offenses generally falls to the flag state. Oddly, the Canadian waiver's statement that Canada would not object to having T-3 treated as a ship for the purpose at hand could be construed as an admission that T-3 was in fact on the high seas; and this would be in conflict with the sector theory, which Canada time and again has declined to renounce completely. Oddly, also, the prosecution's request that the term "high seas" be interpreted to encompass ice islands found support in Canada's Arctic Waters Pollution Prevention Act, which, among other things, was stated to apply to arctic waters above the submarine areas which Canada has the right to exploit, regardless of whether these waters are "in a frozen or a liquid state." As Pharand observed, the floating ice was thus "clearly assimilated to water and not to land..." Since personnel, program, and administration connected with T-3 were all American, Pharand concluded that the United States was justified in exercising criminal jurisdiction "under the general principle of personal jurisdiction based on nationality".¹²⁰

So much for the *Escamilla Case*. It does not appear that much can be added by way of summation of conclusion; however, a few final comments may be in order.

1. One can only agree with Auburn's view that on the whole *Escamilla* was "an unsatisfactory case".¹²¹ The question of whether there actually was a U.S. right of jurisdiction, which became a principal issue and obviously troubled the American authorities throughout, was never properly resolved, either from the American point of view or from any other. Judge Lewis assumed jurisdiction without any great confidence that his decision to do so was sound and with the anticipation that it would be looked at again on appeal; but the appeals court, equally divided as it was, was not in a position to do other than let the decision stand. And so this most fundamental issue was simply left hanging in mid-air. It should perhaps be added that in spite of this lack of clarification there was nothing in the case or in official U.S. behavior regarding it to suggest any change in the traditional American disinclination either to assert or to recognize sovereignty claims in the polar regions without strong and concrete evidence of their soundness in international law.

2. One must agree with Auburn, also, that Canada's behavior, in the case weakened any claim that she might wish to make to waters and floating ice within the so-called Canadian sector. As he observed, it seemed to indicate a withdrawal from or toning down of, the position she had taken in the Arctic Waters Pollution Prevention Act, which itself seemed to represent a retreat from the view of the territorial court in the,

¹²⁰ D. Pharand. (See preceding references).

¹²¹ F. M. Auburn, "International Law and Sea-Ice Jurisdiction in the Arctic Ocean," p. 557 (*supra*).

[This section remains classified under: s.15(1) and s.18]

... The course the Canadian authorities chose to follow avoided, and thus left unanswered, the disturbing question as to what the American response would have been if Canada had asserted firmly that the right of jurisdiction was properly her own and that she proposed to take it. An equally firm and contrary American stance would almost certainly have resulted in a humiliating rebuff for Canada. The obvious lesson, no doubt, is that states should not take up untenable positions unless they are willing to accept the consequences.

True, a confrontation was avoided...

[This section remains classified under: s.15(1) and s.18]

3. Two additional details, which seem to have escaped notice in comments on the case, and which are suggestive about the American attitude towards Canada's role in the affair, are perhaps worthy of mention. Circuit Judge Winter wrote in his opinion that "the government agreed to produce all witnesses who had been on T-3 within the Eastern District at government expense."¹²³ Since only Escamilla and the body of Lightsey had been removed in the first instance, this evidently meant that the American authorities were fully prepared to send another evacuation flight to T-3. Whether there was any consultation or contact with Canada in connection with this plan is not mentioned, nor is it stated whether the Canadian waiver preceded or followed it.

Rear Admiral Holmquist, who as U.S. Chief of Naval Research was directly concerned with the case, says in reference to the problems connected with the evacuation flight. "A stop at Alert could be made on the way to T-3, but Alert could not be used on the return flight without risking a possible jurisdictional controversy with Canada which might have involved, the nation's broad unilateral claims over Arctic waters."¹²⁴ This indicates that the American authorities had in mind from the start a possible Canadian claim to jurisdiction, and were not inclined to give any encouragement or provocation if this could be avoided.

4. In Judge Winter's written opinion, just after his criticism of Judge Lewis's charge to the jury on the ground that it did not take adequate cognizance of the different standards of conduct which may have to be accepted on a remote ice island like T-3, appears the somewhat contradictory statement, "This is not to say

¹²² Ibid., p. 555.

¹²³ See in 467 f. 2d 341 (1972), at 345.

¹²⁴ Rear Admiral Holmquist, op. cit., p. 50.

that the standards of civilized conduct and the law of the United States do not prevail even on T-3....”¹²⁵ Ronhovde comments on this “curious statement”, remarking that it is not satisfactorily explained anywhere in the opinion, and that in fact this was the very question upon which the six Circuit Court judges were equally divided... Did U.S. law apply on T-3 and was Escamilla's act cognizable in a U.S. court?”¹²⁶ A possible explanation may be that the slip was quite accidental, and that Winters may simply have fallen for the moment into the habit, not exactly unknown among his countrymen, of innocently assuming a sort of universality of all things American - standards of conduct, habits, speech, currency, etc. even the law applicable in an isolated establishment such as that on T-3.

5. Although the Escamilla case was disposed of without an international uproar, it is obvious that another, similar case might not meet with such good fortune. Wilkes has pictured a few of the involved international situations which could develop, and which presumably would be much more awkward to handle than the Escamilla case, where at least accused, victim, other personnel, and the project itself, were all American.¹²⁷ Suppose, for example, that either Escamilla or Lightsey had been the only American in the party on the ice island? Or suppose that one or the other had been Canadian? One could easily “suppose” a large number of such complicated situations, which might nevertheless become reality as suddenly as the Escamilla case did.

6. Among the varied opinions about ice islands in general and the Escamilla affair in particular there seems to be unanimity on at least one point - that steps should be taken to provide some kind of legal regime to handle such cases. In an involved comment Wilkes seems to see four solutions as possibilities - (1) a sort of national jurisdiction for ice islands similar to that for ships, perhaps brought about by temporary national registration of ice islands by whatever states occupy them, (2) allocation of rights and responsibilities according to the sector principle, (3) reciprocal arrangements under which states whose citizens occupy floating ice stations agree that an accused person shall be tried in the courts of his own state, and (4) provision of an international tribunal, with powers of subpoena, to try such cases. A few years earlier Wilkes had, as noted, shared in a proposal for an international criminal court which could handle such cases as part of its responsibilities; and here he opts for some “mediatory and recommendatory mechanism” which he seems to identify with such a court. On

¹²⁵ 467 F. 2d 341 (1972), at 347.

¹²⁶ Ronhovde, “Jurisdiction over Ice Islands: The Escamilla Case in Retrospect,” pp. 15-16 (supra).

¹²⁷ D. Wilkes, “Law for Special Environments: Jurisdiction over Polar Activities,” pp. 702, 704 (supra).

the face of it this rather vague concept does not appear to be necessarily synonymous with the more straightforward concept of an international criminal court; but, at any rate, he feels that this sort of “mechanism” would risk the “least chance of rejection”, and goes on to describe a few of what he sees as its main features.¹²⁸

Other suggestions differ somewhat in concept or emphasis, e.g. Ronhovde “a broadly acceptable international solution to the issue of jurisdiction over ice islands or larger ice floes on the high seas” by means of an intergovernmental treaty or convention¹²⁹; Pharand - “a special convention” among “interested states”;¹³⁰ Auburn, indirectly and in more general terms - “a legal regime” to fill the void of any real jurisdiction.¹³¹ But all are agreed that the matter should be taken in hand and some effective provision made. To this proposition, even though little tangible progress has been made, one can readily say “Amen”.

Canadian Officialdom and the Legal Status of Ice Islands

It would be difficult to identify any precise time when the legal status of ice shelves and ice islands first began to occupy the attention of Canadian government officials. Obviously, so far as the ice islands are concerned, this could not have been before 1946, when they were “discovered” and identified. There had of course been knowledge of the ice shelves in the Canadian Arctic for years prior to this time, but there does not seem to be much evidence that they had aroused any particular interest or concern among legal personnel in the Canadian Government.

An early inquiry about ice shelves was made in 1949 by J. W. Burton, who had been selected as senior Canadian observer to accompany the American expedition of that year which was going to take supplies to the Canadian-American Joint Arctic Weather Stations. Burton was wondering about the legal status of the arctic waters and floating ice through which the expedition would sail, and on May 11 wrote a memo asking that “action be taken to obtain the views of the Canadian Government” on a number of questions relating to this problem, among them the following:

Regarding a permanent surface of ice extending from the coast out to sea; does the Canadian Government consider that:

¹²⁸ Ibid., esp. p. 705.

¹²⁹ Ronhovde, “Jurisdiction over Ice Islands: The Escamilla Case in Retrospect,” p.16.

¹³⁰ Pharand, *The Law of the Sea of the Arctic*, p. 198.

¹³¹ Auburn, “International Law and Sea-Ice Jurisdiction in the Arctic Ocean,” p. 557.

- (1) "A permanent surface of ice extending from the coast outward to sea a continuation of the land and that such an area should be subject to the same sovereignty as the land itself, "[sic]
or
(2) "A permanent ice surface should be assimilated to water and not subject to national sovereignty beyond the Territorial water limit?"¹³²

Burton attempted to pursue the matter further, but it does not appear that he got any clear answers to the questions he raised.

[This section remains classified under: s.15(1) and s.18]

A preparatory meeting on February 9, 1951, of Canadian officials connected with the JAWS (Joint Arctic Weather Stations) program noted the possibility, of which it had apparently received notification, that "the United States might propose the establishment of a weather station located on the floating ice in the Canadian and American sectors of the Arctic Ocean."¹³⁵ The idea was discussed in greater detail two days later at the annual Canada - U.S. planning meeting for the JAWS program. R. B. Sykes of the U.S. Weather Bureau drew attention to the publicization at the recent Alaskan Science Conference of information about the floating ice islands in the Arctic Ocean, and expressed the keen interest of the Weather Bureau in establishing a weather station on one of them. Andrew Thomson of the Canadian Meteorological Division said that his unit would support an investigation with the ultimate objective of establishing such a station, and the meeting agreed to recommend that this be undertaken.¹³⁶

The question came up again at the preparatory meeting of Canadian officials one year later, on January 8, 1952. Noting American interest in this kind of weather station, the meeting agreed that there appeared to be no objections from interested Canadian departments and that if the U.S. Weather Bureau wanted to go ahead this year "Canadian agencies should be prepared to cooperate as fully as possible."¹³⁷

¹³² Public Archives of Canada (P.A.C.) R. G. 85, Vol. 304, File 1009-5, Vol. I -C, Section "T", Burton to Wright (May 11, 1949). I have copied the quoted passage exactly as it appears in the file. Burton did not identify the source or sources of his own quotations, which obviously do not fit perfectly into his text.

¹³⁵ P.A.C. RG 85, Vol. 304, File 1009-5. Vol. 2-A. minutes of meeting of Canadian "JAWS" representatives (Jan. 9, 1951), sec. 1.4.

¹³⁶ Ibid., minutes of annual Canada-U.S. JAWS planning meeting (Jan. 11, 1951), sec. 1.4.

¹³⁷ E. A. File 6700-40, Vol. 2, minutes of meeting of Canadian JAWS representatives (Jan. 8, 1952), sec. 1.4.

Not long after this American plans took concrete form. On February 16 the Alaska Air Command asked the R.C.A.F. in Edmonton for authority to use Alert airbase for emergency and staging operations in connection with a “special arctic project” beginning on March 1 and lasting for ninety days. This request was passed on from Edmonton to Ottawa, and on February 18 D.N.D. asked authorities in Washington for:

...further indication of nature of special arctic project concerned which requires use of C47 in Alert area for approximately three months. Defence Research Board who are charged with responsibility for jurisdiction of Can arctic projects and with maintaining knowledge of any other projects in Canadian Arctic of a separate or joint nature, have no indication of nature of this requirement.

The reply from Washington on February 20 was that “Special project is establishment of weather station on ice island located at Pole,” and authority was requested to use the airstrips at Alert, Eureka, Isachsen, Mould Bay, and Resolute in case of emergency during the period February 25 to May 15. The discouraging response from the R.C.A.F. on February 22 was that the airstrips at the first four bases were manned and operated by the Department of Transport, and that neither they nor staff, messing, and quarters would be adequate for the project during the desired period. It was suggested that “your proposed operation be delayed for at least six months and that necessary coordination with Canadian government officials be commenced at an early date.” This unaccommodating attitude seems inappropriate in the circumstances, because D.N.D., the Defence Research Board, and the Department of Transport had all been well represented at the meetings mentioned above, when the project was discussed and approved. At least a partial explanation emerges from documents to be cited later on. The brief reply from Alaska Air Command on February 26 simply reiterated that the airstrips were to be used only for emergency purposes and not as bases for operation, and added, “Project Icicle will proceed as planned with staging at Thule, Greenland.”

[This section remains classified under: s.15(1) and s.18]

The U.S. Navy project was “Ski Jump II”, and involved oceanographic studies on the polar ice pack and an investigation of the ice islands, using Point Barrow as the principal base for flights by navy planes. Word of this enterprise was sent on February 6 to the U.S. naval attaché in Ottawa by the

officer in charge of the project at the Naval Air Test Center at Patuxent River, Maryland, with the request that he get Canadian permission “to make use of such facilities in the Northwest Territory as are available,” and particularly to use Mould Bay and Resolute as refueling stops.¹³⁹ This communiqué was delivered to R.C.A.F. Headquarters in Ottawa, and provoked a discouraging response, on March 3, similar to that which had already been sent to the U.S. Air Force. The U.S. Navy authorities also were advised to postpone their project for about six months, and to arrange it “through government to government channels rather than through service to service.” However, the Canadian government officials concerned were “most anxious to discuss the possibility of a coordinated project.”¹⁴⁰

Some explanation of the reluctance of Canadian officials simply to let the projects proceed is to be found in memos and other documents written at the time. The Canadians were lukewarm, as already indicated, because of the inadequacy of facilities at the northern stations, and also because the American projects would coincide with the annual spring resupply flights and the additional increment of a variety of scientific personnel. Also their previous information had come from the U.S. Weather Bureau, and it seemed evident that the U.S.A.F. and the U.S. Navy had established no effective liaison either with this agency or with each other. They expected, too, that before long the Americans would want to use the stations for operations as well as for emergency purposes. An additional limiting feature was that the airstrips were normally kept in usable condition only for the short period of the spring resupply. A memo drafted by R.A.J. Phillips on February 28 detailed some of these objections, and added the following:

...Quite clearly these investigations have a political interest and constitute a new activity. It is for these reasons, rather than on the basis of possible Canadian claims to the ice floes themselves, that we believe the request should have been submitted through diplomatic channels.

Within recent months the USAF has often sought clearance on very short notice for minor projects which should have been taken up through diplomatic channels. In most cases, after being consulted by the RCAF, we have acquiesced; on each occasion the U.S. Air

¹³⁹ Ibid., Officer in Charge Project Skijump II to U.S. Naval Attaché Ottawa (Feb. 6, 1952).

¹⁴⁰ Ibid., G/C Edwards (for C. A. S.) to Naval Attaché, U.S. Embassy (Mar. 3, 1952). See also A/C Carscallen (R.C.A.F. H.Q.) to Commanding General Alaska Command, Elmendorf Air Force Base, Alaska (Mar. 1, 1952).

Attaché was told that the USAF was using improper channels and that they should avoid doing so in future.¹⁴¹

Whatever the merits or substance of the Canadian objections may have been, it would appear that the American authorities, although not inclined to accept a postponement, were at least willing to accommodate Canadian wishes to the extent of making a coordinated approach through formal channels. A telegram from the U.S. Air Attaché in Ottawa to U.S.A.F. H.Q. in Washington and to the Alaska Air Command included the following:

...Canada requires official request from US State Dept to Canadian Dept External Affairs through US Embassy OttawaCanada would like assurance "Ski Jump Two" coordinated with current CG AAC request "Icicle" and would prefer receive coordinated single request these two projects from US State DepartmentIndications are Canadian Department of External Affairs will approve request along lines above indicated very soon after its receipt through formal channels indicated.¹⁴²

The official American request was made in a note from the U.S. ambassador to the Secretary of State for External Affairs on March 21. The note requested:

...the permission of the Canadian Government for the use of the joint Canadian-United States Weather Station at Alert on Ellesmere Island in connection with a project to investigate ice islands in the Arctic Ocean or aground on the northern coast of Greenland, which the United States desires to carry out at as early a date as possible....The object of the project is to learn the nature of the ice islands, their sources and composition, and to establish on one of these islands a temporary weather station which will investigate Arctic weather for a period of six months.

The note stated that Alert would be used to prepare for one ski-wheel landing on the ice island most easily reached. After this initial landing subsequent flights to the island would be made directly from Thule. It was not planned to base American personnel permanently at Alert and all personnel serving there

¹⁴¹ Ibid., draft of memo, Phillips_ to U.S.S.E.A. (Feb, 28, 1952). See also Wershof to U.S.S.E.A. (Mar. 13, 1952); MacKay (for S. S. E.A.) to Canadian Ambassador in Washington, No 585 (Mar 22, 1952).

¹⁴² Ibid., Col. F. A Pillet, U.S. Air Attaché, to Alaskan Air Command, Alaska, and U.S.A.F. H.Q., Washington, with copy to A/C Carscallen. The copy in the file has not date on it other than "March 1952".

temporarily to help stage the initial flight would be equipped for self-support.¹⁴³

Although this formal request was made to the Canadian Government, the American authorities did not wait for the Canadian response before getting their project under way. In fact, as has already been recounted in the early part of this chapter, the initial American landing on ice island T-3 had already taken place, on March 19.¹⁴⁴ This had been accomplished without any use of Alert, but word was received from the U.S. Embassy of the American wish to use Alert not merely once but a number of times during later operations.¹⁴⁵ At about the same time the embassy sent word that the navy's project "Ski Jump II" had been called off for lack of funds.¹⁴⁶

The Canadian reply to the American request, dated April 17, took account of the fact that the U.S. now wanted to use Alert a number of times during the next few months in connection with the project. The key paragraph in the reply read as follows:

The Canadian Government has granted its approval for the use of Alert as a staging point in connection with the investigations of the ice island known as T3. If, however, it is contemplated that Alert would be used in connection with investigations of any ice islands other than T-3 in the Arctic Ocean, the Canadian Government would expect to be consulted in advance.¹⁴⁷

Plans in early 1953 for a joint Canada-U.S. project on the Ellesmere Island ice shelf, which do not appear to be mentioned in other related files, are summarized in a document in a P.J.B.D. file of this period. The program was to include a study of the ice shelf, its size and characteristics, its resemblance to T-3, its potentiality as a source for further natural or artificial breakoffs, and its geological surroundings on the north coast of Ellesmere Island. Evidently the idea was of Canadian origin, and by Note No. 162 from the Canadian ambassador in Washington to the U.S. Secretary of State the Canadian Government invited the American Government to participate. There was interest in the United States, notably on the part of the U.S.A.F. and the Canadian Government was advised of American acceptance of the invitation through State

¹⁴³ Ibid., U.S. Ambassador to S.S.E.A., No. 233 (Mar. 21, 1952).

¹⁴⁴ Ibid., clipping from *Ottawa Citizen* (Mar. 22, 1952). See also my text above, at fn. 39.

¹⁴⁵ E. A. File 906I-R-40, Vol. 1, Heeney to Secretary C. S. C. et al (Mar. 24, 1952).

¹⁴⁶ Ibid., J. Flanders to Phillips (Mar. 24, 1952).

¹⁴⁷ Ibid., Acting Secretary of State for External Affairs to U.S. Ambassador (April 17, 1952).

Department-External Affairs channels. Strangely, ensuing P. J. B. D. files, and other files consulted, do not appear to give any further information about the plan and its outcome, if any.¹⁴⁸

In May 1954 it was reported that a Soviet aircraft had flown over T-3, which was then within the Canadian sector at approximately 84°21'N. And 81°12'W.; and Canadian officials considered the question of whether there had been any violation of Canadian sovereignty. It was evident that, so far as basic rules of international law were concerned, the answer to the question depended upon the legal status of the ice island itself. A paper written in External Affairs, and dated May 20, took the view that international law had not thus far sanctioned the establishment of sovereignty over ice islands, and therefore it was doubtful whether T-3 could be appropriated by any state. Even if it could, Canada had evidently never demonstrated either the intention to act as sovereign or the actual exercise of any real authority - the two elements necessary to establish legal title by effective occupation.

[This section remains classified under: s.15(1) and s.18]

Accordingly the Soviets could not be considered to have violated Canadian airspace by flying over the ice island.¹⁴⁹ In a paper written on August 5, 1954, Trevor Harwood of the Defence Research Board took a more aggressive stance. Noting that the U.S. had abandoned T-3 nine days after the Soviet aircraft had flown over it (there evidently being no direct connection between the two events), that the U.S.S.R. had since occupied two floating stations in arctic waters, one of which was likely to drift soon into the Canadian sector, and that the U.S.A.F. according to reports intended to investigate both Russian camps, he asserted that, assuming all this was correct, "an immediate diplomatic protest by this country should be made to both parties." He recommended that Canada herself should immediately reconnoiter the Soviet station in the Canadian sector, investigate American activities on T-3, and then reoccupy T-3 with the purpose of carrying out a scientific program of her own.¹⁵⁰

Another paper prepared in the Defence Research Board, unsigned and undated but sent by D.R.B. chairman O.M. Solandt to the C.S.C. secretary on August 12, adopted a similar tone and made similar recommendations, with emphasis on the

¹⁴⁸ D.N.D. D.Hist. File 955.013 (D10), Journal of P.J.B.D., Vol. 10, U.S.A.F. Progress Report for P.J.B.D. meeting April 1953 (n.d.).

¹⁴⁹ E A File 9057-40. Vol 4 memo entitled "Flight of Soviet Aircraft over floating Ice Island T-3" (May 20, 1954). No author identified, but other evidence suggests that the author was J.O. Parry of the Legal Division.

¹⁵⁰ Ibid., D.R.B. paper "Probable Russian Activity in the Canadian Section of the Arctic Ocean," by T.A. Harwood, Arctic Section (Aug. 5, 1954).

need to keep a watchful eye on the Soviet station which had been drifting toward the Canadian sector. The paper gave some additional details on Soviet activities of this kind, and also on Soviet publications and news bulletins on the subject. On the whole it took a rather dark view of the situation:

... Unfortunately at the moment it can be said without dispute that the ice covered sea beyond the north coast of Canada is now scientifically, and possibly from a military viewpoint, entirely dominated by the Soviet Union.... While there may be some dispute over the value of the polar basin from a strategic point of view there can be little doubt that the presence of the polar station manned by the USSR in this period of tension should invite profound concern in their activities.¹⁵¹

The recommendations in the two D.R.B. papers were carried out to the extent that an R.C.A.F. reconnaissance was made of the Soviet station in or near the Canadian sector. It would seem, however, that no attempt was made by Canada to occupy T-3.¹⁵²

[This section remains classified under: s.15(1) and s.18]

The R.C.A.F. reconnaissance located the Russian-occupied "ice island" at 89°36' N. and 55°00' W. on September 20.¹⁵⁴ Thus it was at that moment in the Danish sector, but very close to the Canadian. A report of the reconnaissance accompanied by photographs, raised for the R.C.A.F., the problem of whether the information gathered should be made public. The matter was passed on to External Affairs¹⁵⁵ where it was considered in conjunction with what had already transpired. The reaction of one official, Mr. B. Rogers of Defence Liaison (1) was that "Care should be taken ... to avoid giving the impression that we consider an ice island in the sector as Canadian territory."¹⁵⁶ On October 1 the reply was sent back to the R.C.A.F. that "it is the view at the official level in the Department of External Affairs that it would be undesirable to say anything more to the press about the reconnaissance of the Soviet Station than is absolutely necessary.

[This section remains classified under: s.15(1) and s.18]

¹⁵¹ E. A. File 50211-40, Reconnaissance of Possible Soviet Activities in the Canadian Arctic, Vol. 1, D.R.B. paper "Russian Activities on the Canadian Side of the Pole" (NAND., sent by D.R.B. chairman O.M. Solandt to C.S.C. Secretary Aug. 12, 1954.).

¹⁵² Ibid., handwritten note by G. Bruce on memo by Cmdr. Solomon, Secretary, to C.S.C. et al (Oct. 4, 1954).

¹⁵⁴ Ibid., G/C D. Edwards (Director of Air Intelligence, D.N.D.) to G.G. Crean (Sept-24, 1954).

¹⁵⁵ Ibid

¹⁵⁶ Ibid., handwritten note by Benjamin Rogers on G.G. Crean (Defence Liaison (2), External Affairs) to M. Wershof (Sept. 24 1954).

A paper dated January 19, 1955, and written by Graham Rowley, Secretary to the Advisory Committee on Northern Development, for the committee, summarized Soviet activities on the ice in the Arctic Ocean and the significance of the sector theory in this connection. The conclusion reached in the paper was that “[u]nder existing international law it is very doubtful if floating ice islands can be subject to the sovereignty of any state.”¹⁶⁰

[This section remains classified under: s.15(1)]

On January 31, 1955, a Mr. Harry Aleson of Larabee and Aleson Western River Tours, Richfield, Utah, wrote to the Air Adjutant General in Washington asking for “an official O.K.” to land civilian planes on T-3 in connection with northern tourist flights. He was answered on March 7 by Lt. Col. D. E. Anderson of the U.S.A.F., whose letter read in part as follows:

The real estate you request to use is not controlled by the United States and there is some question as to whether this is in International waters or belongs to Canada. Therefore, it will be necessary for you to contact the Canadian Embassy for further guidance on this matter.

Accordingly Aleson wrote a letter on March 20 transferring his request to the “Canadian Embassy Ottawa”,¹⁶² and after some delay it arrived “by a somewhat roundabout route” at the Canadian Embassy in Washington. From there it was sent to External Affairs in Ottawa,¹⁶³ where it came to the attention of the personnel in the Legal Division.

[This section remains classified under: s.15(1)]

In late April and early May 1956 several R.C.A.F. reconnaissance flights were made to investigate a Russian camp on a large ice floe at approximately 78°23'N. and 138°00' W. A report of the investigation noted that so far as was known this was the first time that a Russian operation of this kind had actually been located within the Canadian sector.¹⁶⁵ The later flights were unable to find the encampment, and it was concluded that the Russians had either moved it elsewhere or abandoned it.¹⁶⁶

¹⁶⁰ E. A. File 9057-40, Vol. 5 “Sovereignty in the Canadian Arctic,” by G.W. Rowley. Secretary to A.C.N.D. (Jan. 19, 1955).

¹⁶² File 9057-40, Vol. 5, Aleson to Canadian Embassy Ottawa [sic] (March 20, 1955).

¹⁶³ Ibid., Louis Couillard (for Canadian Embassy, Washington) to U.S.S.E.A., No. 761 (May 9, 1955).

¹⁶⁵ E. A. File 50211-40, Vol. 1, “Report of RCAF Reconnaissance of Russian Activity at 78°23'N - 138°00'W” (May 8, 1956).

¹⁶⁶ Ibid., “Final Report of RCAF Reconnaissance of Russian Activity at 78°23' N - 139°00'W” (May 29, 1956).

The United States had temporarily abandoned T-3 in May 1954, because of its proximity at that time to the Alert and Eureka weather stations and the consequent duplication of information obtained. However, a temporary reoccupation was undertaken in 1955. A memo from the American secretary of the Military Cooperation Committee to his Canadian counterpart gave detailed information about the planned reoccupation, but seemed to take pains to emphasize that neither Canadian permission nor Canadian assistance was being sought in connection with the project. The memo began as follows:

In order that Canadian military authorities may have advice of United States intentions in this regard, the following date is provided as a matter of information on a United States Air Force proposal.

The USAF will undertake a temporary reoccupation of Ice Island T-3 for scientific purposes during the period 15 April to 1 September 1955...¹⁶⁷

There was no suggestion in the memo of a desire to use any of the joint weather stations, or any northern Canadian post, for support or emergency purposes.

After another abandonment the U.S. returned once again to T-3 in March and April 1957, in carrying out their project "Ice Skate", which was an American contribution to the International Geophysical Year. The project involved a reoccupation of T-3, which at the time was located at about 83°N. and 100°W., and the establishment of another station on the pack ice at about 80°N. and 150°W. An information memo from the American secretary of the Military Cooperation Committee to the Canadian secretary began in words almost identical to those used in the similar memo of March 31, 1955, which has already been cited, and, again, there was no indication of any request for Canadian authorization. On this occasion, however, Canadian permission was requested for use of the facilities at the joint weather stations Alert, Eureka, and Isachsen for a variety of support purposes.¹⁶⁸

[This section remains classified under: s.15(1) and s.18]

Supporting this statement, the Deputy Minister of Northern Affairs and National Resources wrote in a memo to the Under Secretary of State for External Affairs on April 20, "I

¹⁶⁷ E. A. File 9061-R-40, Vol. 1, T. W. Schwellenbach, Secretary of U.S. Section, Military Cooperation Committee, memo for Secretary of Canadian Section (March 31, 1955).

¹⁶⁸ Ibid., Lt. Col. D. F. Montgomery, U.S. Secretary, memo for Canadian Secretary (March 5, 1957); also G/C M. Lipton (for C.A.S.) to J.J. McCordle of External Affairs Defence Liaison Division (Feb. 22, 1957).

think that we should not commit ourselves at this stage as to the status of ice islands.”¹⁷⁰

[This section remains classified under: s.15(1) and s.18]

A particular situation which developed in the late 1950s must have been gratifying to Canadian authorities, since it apparently was accompanied by unqualified American acknowledgment, even if only implied, of Canadian sovereignty over the Ellesmere Island ice shelf. Early in 1958 the United States proposed a joint Canadian-American research project to investigate this ice shelf later that year, and requested Canadian authorization to carry it out. The desired approval was given, but the aircraft which was to transport the joint scientific party was disabled and the project had to be postponed until the following year.

On October 28, 1958 the U.S. ambassador, referring to earlier notes of May 2 and May 20, 1958 which described and announced postponement of the project, put the proposal forward again for 1959. His note read in part:

It is now proposed that a new expedition be undertaken in the summer of 1959.... It would be appreciated if the Canadian Government would give consideration to this request with a view to granting authorization for the United States scientific party to participate with Canadian scientists in the joint research project on the Ellesmere Ice Shelf.¹⁷⁵

After the project had been cleared with interested Canadian departments External Affairs sent a note, on February 6, 1959, to the American ambassador, containing “the authorization of the Government of Canada for United States participation in a joint research project to investigate the Ellesmere Ice Shelf from March 15, 1959, until September 30, 1959.”¹⁷⁶ On April 8, 1960, the American ambassador requested authority to continue the project in 1960,¹⁷⁷ and on April 22 this authority was granted, subject to certain conditions.¹⁷⁸ Similar authority was requested again for 1961, but on this occasion the United States had to cancel the

¹⁷⁰ E. A. File_9057-40, R. G. Robertson to J. Leger (Apr. 20, 1956).

¹⁷⁵ D.N.A.N.R. File 99-2-245, Ice Shelf, Vol. 2, U.S. ambassador to S.S.E.A., No. 100 (Oct. 28, 1958), citing notes 251 (May 2, 1958) and 263 (May 20, 1958). See also *ibid.*, P. Tremblay (for U.S.S.E.A.) to D.N.A.N.R. (Nov. 3, 1958); also copy of memo of August 1, 1958.

¹⁷⁶ *Ibid.*, U.S. ambassador to S.S.E.A. (Oct. 2, 1959), citing External Affairs Note 32 (Feb. 6, 1959). See also *ibid.*, P. Tremblay (for U.S.S.E.A.) to D/M D. N. A. N. R. (Feb. 2, 1959).

¹⁷⁷ *Ibid.*, U.S. ambassador to S.S.E.A., No. 250 (April 8, 1960).

¹⁷⁸ *Ibid.*, S.S.E.A. to U.S. ambassador, No. 54 (Apr. 22, 1960).

plan because not enough scientists were available.¹⁷⁹ In sum, as already suggested, this little episode would seem to have demonstrated conclusively that the United States was in no way inclined to question Canadian sovereignty over the Ellesmere Island ice shelf.

In 1958 a comprehensive effort was initiated within Canadian government circles to clarify Canada's position respecting a variety of issues in the Arctic, and also to prepare the way for any claims or assertions of policy the Canadian Government might subsequently wish to make. There was a considerable background of thought and planning in connection with this effort, but of decisive significance was a memo sent by the U.S.S.E.A. to the Deputy Minister of Northern Affairs and National Resources on August 26. The memo stated *inter alia*:

It would seem that the need for clarification of the Canadian position with regard to the Arctic basin has been considerably increased by several recent development on the international scene which would appear to bear, either directly or indirectly, on the general question of sovereignty in the Arctic.

One of these developments, said the memo, was the practice of the U.S.S.R. and the U.S. of establishing bases on ice floes and ice islands for scientific purposes.

It seems evident that, having regard to the fact that permission is not sought from the Canadian Government for these uses, any claim to that portion of the Arctic basin falling within the so-called Canadian sector which the Government might wish to put forward might be seriously prejudiced by delay in asserting that claim.

Leger's idea was that it would be useful to have an "assessment of our national interest" in these matters, perhaps by the Advisory Committee on Northern Development or the Interdepartmental Committee on Territorial Waters, to provide information which would be useful in the determination of future government policy, and also, perhaps, to examine the desirability of "stepping up" Canadian activities in this area by appropriate means, including the establishment of a base on an ice island or ice floe. In particular he asked whether Robertson, using whichever of the two named committees he preferred, would be willing to "initiate and oversee" the desired study.¹⁸⁰

¹⁷⁹ Ibid., Rowley to A.C.N.D., Doc. ND-333 (Mar. 9, 1961); extract from minutes of 60th A.C.N.D. meeting (Apr. 24, 1961).

¹⁸⁰ E. A. File 9057-40, Vol. 7, Leger to R. G. Robertson, memo drafted by A. E. Gotlieb (Aug. 26, 1958). (Editor's Note: This was found as "180" in the endnotes, however the

Robertson replied promptly two days later saying, "I agree entirely with your suggestion...." He indicated his preference to work through the A.C.N.D., although the I.C.T.W. could be consulted according to need. He proposed to have the Secretary of the A.C.N.D., Graham Rowley, prepare a preliminary paper for discussion, after which a questionnaire would be sent to the interested departments, leading to the preparation of a comprehensive report¹⁸¹ Rowley's preliminary paper, which was submitted to the A.C.N.D., made no specific mention of ice islands.¹⁸² However, the questionnaire which was prepared for distribution under R.G. Robertson's signature, to the various interested departments, and which was dated October 30, 1958, included a query (#4) on ice islands as follows:

What advantages and disadvantages from the point of view of your department would there be in asserting sovereignty over the so-called ice islands (persistent ice floes of considerable thickness which are believed to have broken off the ice shelf of Ellesmere Island and which provide a floating platform which can be occupied a permanent basis) in...

[This section remains classified under: s.15(1) and s.18]

During the next several months a considerable number of replies to this questionnaire were received. Some interesting and significant shades of opinion were indicated, on ice islands as on the other issues raised. Jim Nutt of External Affairs, who had been very much involved with arctic sovereignty, sent some "off-the-cuff comments" from the Canadian Embassy in Washington. D. C.C. on November 17.

[This section remains classified under: s.15(1) and s.18]

Writing on December 5, Deputy Minister G. R. Clark of Fisheries expressed the view that control of the land-fast ice in the polar basin and the channels of the archipelago "would seem wise since it is used by certain mammals...." but so far as the ice islands themselves were concerned there seemed to be no advantage "from the purely fisheries point of view."¹⁸⁵ Commissioner E. Nicholson of the R.C.M.P thought that there would be neither significant advantages nor disadvantages in claiming either land-fast ice or ice islands in the polar basin beyond Canadian land territory, but observed that "the normal belt of territorial waters would probably take in the land-fast ice."

note itself was not found in the body of the work. It has been placed where it was most likely intended to reside.)

¹⁸¹ Ibid., R. G. Robertson to Leger (Aug. 28, 1958).

¹⁸² Ibid memo by Rowley for A.C.N.D. (Sept, 16, 195a).

¹⁸⁵ Ibid., Clark to Robertson..(Dec. 5, 1958), These replies may also be seen in Dep't of Northern Affairs and National Resources File S-99-2-11A, Sovereignty Over Arctic Waters, Vol 1.

[This section remains classified under: s.15(1) and s.18]

He was thinking particularly about the work of the Force, and, interestingly enough in view of later developments such as the Escamilla Case, asserted categorically,

[This section remains classified under: s.15(1) and s.18]

W.E. van Steenburgh, replying for Mines and Technical Surveys, said that the department had given Robertson's letter "considerable thought".

[This section remains classified under: s.15(1) and s.18]

On the other hand he thought that it was "unrealistic" to claim sovereignty over ice islands floating freely in the arctic basin and expressed no clear opinion about ice islands elsewhere.¹⁸⁸ The Department of National Defence, which had already produced a draft reply by December 12, had a slightly revised version, under the signature of General Foulkes (Chairman of the Chiefs of Staff) ready on December 23.

[This section remains classified under: s.15(1) and s.18]

Assuming that the Arctic Ocean was international waters, observation posts could be established freely on ice islands drifting therein;

[This section remains classified under: s.15(1) and s.18]

Deputy Minister D. Sim of National Revenue stressed that his department's interest in these matters was focused mainly upon Canadian customs waters, which were currently defined in the Customs Act as all Canadian waters (all territorial waters including the marginal sea of three marine miles beyond the coastal baselines) plus nine additional marine miles, making a limit of twelve marine miles altogether. In view of this "he wrote, "it would seem that we would have no interest whatsoever in the so-called ice islands lying outside of Canadian Customs waters," and his department's view was that "these ice islands and other areas of floating ice in the Arctic Ocean are in international waters...."

[This section remains classified under: s.15(1) and s.18]

His "few general comments," as he called them, made no specific mention of ice islands.¹⁹¹ The response of External Affairs to R. G. Robertson's questionnaire was arrived at after

¹⁸⁸ Ibid., Van Steenburgh to Robertson (Dec, 16, 1958).

¹⁹¹ Ibid Coleman to Rovdey (Jan-14, 1959),

much thought, at least one preliminary draft, at least one departmental meeting, and several written comments from divisions within the Department. It finally appeared under the signature of Under-Secretary Norman Robertson, on January 14, 1959. At a meeting of division representatives about three weeks earlier the consensus of opinion about ice islands had been that no nation could claim sovereignty over them “unless possibly they entered territorial inland waters.”¹⁹² A memo from the American Division on December 31 made the following suggestion, “It has occurred to us that ice islands could be compared to wild animals and the law applicable to them applied to ice islands.” In attempting to explain this rather alarming analogy the memo spoke of ice islands as property (in the chattel sense) of ice islands moving and crossing boundaries while under occupation, and of ice islands being abandoned, but what all this had to do with wild animals was not made very clear.¹⁹³

In his reply on behalf of the Department Norman Robertson took the following general stand;

[This section remains classified under: s.15(1) and s.18]

However this might not include shelf ice, which perhaps “should be viewed as an exception to the general conclusions...; thus a good case might possibly be made for claiming the ice-shelf extending northwards from Ellesmere Island into the Basin.” And with reference to ice islands specifically:- “... we think it can be argued that no nation can claim sovereignty to ice on the high seas (unless an ice-shelf, or, perhaps, land-fast ice) and that there is therefore nothing in international law to prevent access by anybody to ice islands and ice floes in the Arctic, for instance.”¹⁹⁴

The response of the Department of Transport, signed by Deputy Minister J.R., Baldwin, indicated that there had been different opinions within the Department on some of the points under discussion, but general agreement that Canada should take some action.

[This section remains classified under: s.15(1) and s.18]

¹⁹² EA File 9057-40, No1 7. memo by G C. Langille (Legal Division) on departmental meeting Dec. 22, 1958).

¹⁹³ Ibid., memo by J. H. Cleveland, American Division (Dec. 31, 1958), To establish the credentials of wild animals in this analogy, one might perhaps call to mind the old limerick:

“There was a young lady of Niger,
Who smiled as she rode on a tiger...”

Or better yet, perhaps, the huge wolf which ate its way right into Barron Munchausen’s sleigh horse, and then was walloped and whipped by Munchausen until it brought sleigh and baron to the hoped—for destination

¹⁹⁴ Ibid, Vol. 8, N. A. Robertson to R.G. Robertson (Jan. J 4, 1959)

The task of summarizing the replies to the questionnaire and consolidating them into a single document fell mainly upon Graham Rowley, Secretary of the A.C.N.D. The resulting paper incorporating changes and amendments suggested in A.C.N.D. meetings and elsewhere, was forwarded to the ministers in the Cabinet Committee on Territorial Waters on or about June 26, 1959.¹⁹⁶ However, the paper did not respond directly and precisely to all the questions put forward in the questionnaire, and there was no specific answer to the fourth question on ice islands. The paper did contain, nevertheless, passages which were of either specific or general application to ice islands and ice shelves. E.g.:

“Observation posts maintained on the ice islands by the U.S.S.R. and U.S.A. are not considered direct military threats to Canada. If the Arctic Ocean were considered international waters observation posts could be established by any country and could be carried by the movement of the ice fairly close to the U.S.S.R.”

“... concepts of international law frequently change and developments in the Antarctic may lead to the recognition of certain types of ice being recognized as being capable of appropriation.”

[This section remains classified under: s.15(1) and s.18]

In retrospect, however, it may well be that a line of thought which was developing in government and civil service circles at the time and which was given concrete expression by R.G. Robertson in a memo to his minister on March 3, 1959 had much greater influence on future policy respecting ice islands and related matters than the questionnaire, responses, and resulting document which had been produced after so much effort. Robertson wrote in part as follows:

[This section remains classified under: s.15(1) and s.18]

The passage of events as they unfolded during the years following suggests strongly that the approach here recommended provided the basis, to a very large extent, for Canadian Government policy respecting these arctic maritime issues generally, even though this policy was not for the most part openly avowed or publicized.

The substance of the A.C.N.D. paper for the Cabinet Committee on Territorial Waters, was incorporated in a memorandum for Cabinet dated December 10, 1959 and signed

¹⁹⁶ D.N.A.N.R. File S-99-2-11A, Vol 1, Rowley to M.W. Cunningham, Secretary of Cabinet. Committee on Territorial Waters (June 26, 1959). enclosing copies of Document ND-283 entitled “Canadian Sovereignty Over Arctic Waters” : also memo. by Rowley to A.C.N.D. (June 30, 1959). See copy of Doc. ND-283 also E-A. File 9057-40. Vol. 9

by Alvin Hamilton, Minister of Northern Affairs and National Resources. Like the paper, the memo said nothing specifically about ice islands.

[This section remains classified under: S.15(1) and s.18]

Hamilton's memo was concurred in by Secretary of State for External Affairs Howard Green on February 1, 1960.²⁰⁰ That these recommendations, and the background of effort-behind the scenes which had produced them reflected the continuing doubts and uncertainties of those who had the responsibility of coping with the problem is obvious enough. It is well to point out, however, that these doubts and uncertainties largely at public service level, were partly the cause and partly the effect of similar doubts and uncertainties at political level, as demonstrated from time to time by varying and sometimes conflicting statements by political leaders. Brief extracts from a few of the more noteworthy of such statements in the House of Commons serve to show the absence of any clear-cut and consistent Canadian Government policy in these matters at the time:

Prime Minister St. Laurent (December 8, 1953): - "We must leave no doubt about our active occupation and exercise of our sovereignty in these northern lands right up to the pole".²⁰¹

Minister of Northern Affairs and National Resources Jean Lesage (August 3, 1953): - "We have never upheld a general sector theory. Our sovereignty exists over the lands and over our territorial waters ... The ice cap is in exactly the same situation as the Atlantic ocean; it is the high sea."²⁰²

Minister of Northern Affairs and National Resources Alvin Hamilton, answering a question from Mr. Lesage (Nov. 28, 1957): - "Mr. Speaker, the answer is that all the islands north of the mainland of Canada which comprise the Canadian Arctic archipelago are of course part of Canada ... the Arctic ocean north of the archipelago is not open water nor has it the stable qualities of land ... "Before making any decision regarding the status which Canada might wish to contend for this area, the government will consider every aspect of the question with due regard to the best interests of Canada and to international law."²⁰³

²⁰⁰ E.A. File 9057-40, Vol 10. Green to Hamilton (Feb 1 1960), See also Hamilton to Green (Jan., 26, 1960); R. G. Robertson to N. A. Robertson (Jan.,26, 1960); N. A. Robertson to Green (Feb. 1, 1960).

²⁰¹ Canada, *House of Commons Debates* (Dec. 8, 1953), p. 700.

²⁰² Ibid., (Aug. 3, 1956), pp. 6955-6956.

²⁰³ Ibid., (Nov, 27, 1957). p. 1559. As an illustration of the sometimes unrealized or overlooked fact that many well publicized ministerial statements are actually drafted in the public service, see

Leader of the Opposition Lester Pearson, referring to possible application of continental shelf doctrine to permanent ice fields (Aug. 14, 1958):- “But beyond that there is certainly no recognition by any other country that I know of ... that we have any rights of sovereignty or control over the permanent ice.”²⁰⁴

Minister of Northern Affairs and National Resources Alvin Hamilton (August 14, 1958):- “...you can hold a territory by right of discovery or by claiming it under some sector theory but where you have great powers holding different points of view the only way to hold that territory, with all its great potential wealth, is by effective occupation.”²⁰⁵

Prime Minister John Diefenbaker, speaking of northern policy, (August 16, 1958), asserted his intention to assure “that everything that could possibly be done should be done to assure that our sovereignty to the North pole be asserted, and continually asserted, by Canada.”²⁰⁶

Granting that quotations such as the above, taken out of context, may give incomplete and even inaccurate impressions, and also that in these cases the speakers' remarks doubtless reflected preoccupation with different aspects of the situation, it is nevertheless evident that there was no clear, coordinated, established approach to these northern issues. This is hardly surprising, since to a large extent the issues themselves, including ice islands, were of comparatively recent emergence. Canadian uncertainty over these matters went hand in hand with uncertainty at global level, where the nations of the world were attempting to grapple with developing law of the sea problems through such agencies as the International Court of Justice, the International Law Commission, the U.N. General Assembly, and the Law of the Sea Conferences.

D.N.A.N,R. File S-99-2-11. Vol. 4, R. G. Robertson to Minister, (Feb. 27, 1959). Robertson was contradicting an apparent assumption in a statement by Dr. van Steenburgh that Canada had asserted a claim to the sea and floating ice in the Canadian sector” and wrote in part as follows, “An answer to a question by Mr. Lesage in November 1957, was very carefully worked out between us and External Affairs. It is in Hansard for November 27, 1957, on page 1559. External Affairs are also securing a copy of that answer and will have it in Mr. Smith’s hands. The answer was devised so as to do two things:

- (a) make it clear that we have never asserted a positive claim to sea or ice, and
- (b) not specifically exclude a future claim to sea or ice if this should be thought desirable at some future time.”

²⁰⁴ Canada, *House of Commons Debates*, p. 3512.

²⁰⁵ *Ibid.*, (Aug. 14, 1958), p. 3540.

²⁰⁶ *Ibid.*, (Aug. 16, 1958), p. 3652.

Judging by the files, the status of ice islands did not provoke much discussion within Canadian Government circles in the 1960's. However the Escamilla case, already discussed, provided the occasion for, indeed necessitated, a measure of further consideration, discussion, and response to American action.

Word of the alleged homicide was not received in the Legal Operations Division of the Department of External Affairs until July 29, 1970, i.e., thirteen days after the event had taken place. The news came from L.A.C.O. Hunt of the A.C.N.D. and I.A.N.D., who have some additional details, including the reported refueling stop of the U.S. evacuation aircraft at Alert while en route from Thule to T-3.

[This section remains classified under: s.15(1) and s.18]

Next day Under-Secretary Ritchie put the situation before his minister in a lengthy memo, some of the key parts of which ran as follows:

... We understand that on the return trip the U.S. naval helicopter refueled in the air to enable it to return direct to Thule rather than bring back the body through Canadian territory at Alert....

... Fortunately, the press has not yet raised the question as to whether or not criminal jurisdiction in this case rests with the Canadian or American authorities. We have discussed this aspect of the problem with the Departments of Justice, Northern Affairs, National Defence and the R.C.M.P. and it has been agreed that for the time being any enquiries from the press would be answered by indicating that the Canadian Government is aware of the case and that officials are examining all aspects of the question.

[This section remains classified under: s.15(1) and s.18]

The "low key Note" suggested by the Under Secretary was sent a day later, on July 31, and in essence amounted to a statement of Canada's wish to reserve her position in the case and a request for information. The text of the note is given below:

The Canadian Government has the honour to refer to various reports of an alleged homicide committed on July 16 on the drifting ice formation "T-3" which is manned by scientific personnel of the United States Government and which at the time in question was situated approximately two hundred miles west of Ellesmere Island.

The Canadian Government has noted these reports concerning the alleged homicide and subsequent action taken by the U.S. authorities, and wishes to reserve its position on the matter. In this connection the Canadian Government would be grateful if the U.S. Government were to provide it with official information concerning the incident.²¹¹

The reply from the Department of State, dated August 13, gave a brief summary of the affair, including the following:

.... The Department of State wishes to inform the Embassy of Canada that a judicial investigation is underway concerning the alleged murder of Mr. Bernie B. Lightsey by Mr. Mario Escamilla on ice formation "T-3" on July 16, 1970....

The Navy investigators transported the suspect directly from "T-3" to Thule, Greenland by helicopter, and from there to Dulles International Airport, Virginia, U.S.A. The aircrafts used touched down only at "T-3", Thule, Greenland, and Dulles International Airport. Because the suspect first set foot in United States territory in Virginia, the venue of the Federal Courts there attaches.²¹²

During the following days Canadian officials endeavoured to inform themselves as fully as possible about both ice islands in general and the T-3 case in particular, in the hope that they could find a constructive and consistent Canadian stance that would adequately protect Canada's interests in the affair. Obviously the case had implications which were potentially of considerable significance. In the course of this effort they dredged up a considerable amount of material, including some of the papers and documents which have already been cited in this study.

[This section remains classified under: S.15(1) and s.18]

In other words, if the Canadian Government did nothing it would be conceding jurisdiction to the United States, but on the other hand if it claimed jurisdiction it would probably encounter a direct American refusal to admit the claim.

Matters were not made easier for the Government by some of the publicity the case received, nor, as might have been expected, by the attitude of the parliamentary opposition. For example Ged Baldwin of Peace River, who seems to have been the spokesman for the Progressive Conservatives in the affair, gave vent

²¹¹ E.A. Classified file on Escamilla case, Canadian Embassy to Department of State, No. 192 (July 31, 1970).

²¹² Ibid., Department of State to Canadian Embassy (Aug. 13, 1970).

to his feelings in a press release on August 19.

Mr. Ged Baldwin today expressed amazement and concern over the continued silence of the Trudeau Government on the Arctic ice-floe incident....

“We in the Conservative Opposition pressed the Government earlier this year for an outright declaration of sovereignty over Arctic waters. “But they were content to legislate on pollution stating that this was an exercise of sovereignty. Now the ineptitude of this legislation is apparent.”²¹⁴

And again on August 25, in another press release: -

Ged Baldwin, Progressive Conservative House Leader, said today that the Liberals are playing games in the North -- and the Canadian people will be the losers.....

The recent ice-floe murder case clearly points out that the government's stand jeopardizes our present and future claims to sovereignty.... Canada has long ago established legal precedents which would support its claim to sovereignty over sea ice, he said. Yet, the Liberals pussy-footed and threw away what advantages Canada possessed.²¹⁵

Some months afterwards, but before the accused had been tried in the U.S. District Court, External Affairs prepared a number of suggested answers to hypothetical questions on the case which might be asked in the House of Commons. This was done especially for Parliamentary Secretary Andre Ouellet, the purpose evidently being to spare him if possible the embarrassment of being caught off guard and unprepared in the House. One question and answer, indicative of the position Canadian officials wanted to occupy in the affair, was framed as follows.

Possible Questions: Would the Parliamentary Secretary comment on the article on page 1 of the March 16 Toronto Telegram that serious friction may be caused in Canada-U.S.A. relations as a consequence of the U.S. Government arguing in the T-3 Ice Island case that the T-3 is a U.S. ship on the high seas and not in Canadian waters.

²¹⁴ Ibid., press release of Aug. 19, 1970.

²¹⁵ Ibid., press release of Aug. 25, 1970. Parliament was not in session at the time of these press releases.

Possible Answer: I do not share the views expressed in the article just referred to because international law clearly states that the flag nation can have jurisdiction in connection with an offence committed on board ship whether it is on the high seas or in the waters of another nation. Consequently there is no diminution of Canadian sovereignty involved in this case.²¹⁶

The U.S. Government did not argue, of course, that T-3 was a U.S. ship.

On May 4, 1971, External Affairs received an oral request from the State Department for Canadian consent to the tabling by the State Department in the trial the following day of the Canadian note of July 31, 1970, and the U.S. note of August 13, 1970. The Canadian response was agreement that this should be done provided that a further Canadian note be tabled at the same time. The substantive part of this further note, which was delivered on May 5, was worded as follows.

The Canadian Government continues to reserve its position on the question of jurisdiction over the alleged offence but would not object to having the drifting ice formation in question treated as a ship for the purposes of the particular legal proceedings concerned in order to facilitate the course of justice, and if it is considered necessary for the purposes of the legal proceedings in question the Canadian Government hereby waives jurisdiction.²¹⁷

In requesting his minister's approval of this procedure, and of the note itself the Under Secretary explained briefly what was in view.

... The legal effect of this approach is that the United States would have jurisdiction over the ice formation (as a "flag state, whether or not Canada also has jurisdiction on the grounds that the ice formation was within the "Canadian sector" at the time of the alleged offence.) Thus the position being taken would neither affirm nor disaffirm the sector theory, but would have the effect of reserving Canada's position concerning it.²¹⁸

²¹⁶ Ibid., Ritchie to Parliamentary Secretary (March 17, 1971), enclosing list of possible questions and suggested answers.

²¹⁷ Ibid., External Affairs (via Canadian Embassy) to State Department (May 5, 1971). See also my text above, at fn. 106.

²¹⁸ Note classified under: s.15(1) and s.18.

The three notes mentioned above were thus tabled and used as evidence in the trial. Not surprisingly, the Americans were unimpressed with the position Canada was trying to take. Their reaction was described in a communique from the Canadian Embassy to Ottawa.

... When defense persisted in trying to get behind meaning of Cdn note of May 4 Judge Lewis said that if you really got behind big fancy words used in note all it really meant was that Cda was saying it reserved right at some time in future if it ever though worth its while to claim as much jurisdiction as it could get away with. This caused great deal of laughter in court room, particularly from State Dept. reps...²¹⁹

The case may have done something to clarify Canadian and American points of view regarding the legal status of ice islands, but, as has already been shown, it did little to settle the basic issues involved. And it gave little endorsement to Canada's contention, or desire, that T-3 should be treated as a ship for the purpose of the trial.

As an illustration of the never-ceasing potential inflammability of North American arctic issues generally, it might be mentioned in passing that, at a late stage in proceedings, a communiqué from the Canadian Embassy in Washington stirred up, at least momentarily, old fears about arctic sovereignty among External Affairs officials. The communiqué quoted the U.S. prosecuting attorney in the trial as having stated, "We don't claim any territory in the Arctic and don't recognize the claim of any other nation." However, an anxious inquiry from External to the Embassy soon elicited the response that the State Department had confirmed that "statements made by prosecuting attorney as reported bear no/no official sanction and were merely expressions of prosecuting attorneys view," also that the attorney was clearly referring to sovereignty over arctic ice.²²⁰

In sum, it is evident that several broad statements can be made with respect to the prevailing views in Canadian government circles about ice islands, from the time of their identification in the late 1940's till [sic] the conclusion of the Escamilla Case in 1972.

[This section remains classified under: s.15(1) and s.18]

²¹⁹ Ibid., Canadian Embassy (Washington) to External Affairs, No. 1383 (May 6, 1971).

²²⁰ Ibid., Canadian Embassy (Washington) to External Affairs, No. 2313 (June 12, 1972); Legault (Legal Operations) to Embassy, No. 733 (July 10, 1972); Embassy to External, No. 3046 (Aug. 9, 1972).

1. Memorandum, “Flight of Soviet Aircraft over Floating Ice Island T3,” 16 May 1954

LAC, RG 25, file 9057-40

FLIGHT OF SOVIET AIRCRAFT OVER FLOATING ICE ISLAND T – 3

The question of whether any international flying regulation was violated by the recent alleged flight of a Soviet aircraft over the floating ice island T-3 is dependent on the status of the island itself in international law.

The general rules of international law on flight in airspace may be summarized as follows:

- (a) Flight in airspace above the high seas or above territory not under the sovereignty of any state is free and open to the aircraft of all nations;
- (b) Flight in airspace above the territory of any state, including territorial waters, can only be claimed on the basis of a conventional or treaty right or express permission. Any unauthorized entry into state airspace is in principle an infringement of that state's territorial sovereignty.

Thus if T-3 is regarded as territory under Canadian sovereignty, the Soviet aircraft would infringe Canadian sovereign rights by making an unauthorized flight above the island. If, on the other hand, T-3 is more properly to be considered as a floating portion of the high seas or as res nullius (territory not under the sovereignty of any state but capable of appropriation) the Soviet aircraft violated no sovereign rights of Canada by flying across the island and indeed was entitled to do so without interference.

For the following reasons it is very doubtful if T-3 can be considered territory subject to Canadian sovereignty at the present time:

- (a) Thus far international law has not recognized the right of a state to establish sovereignty over ice islands whether floating or permanently fixed. Such areas have

generally been regarded as solidified portions of the high seas and not capable of effective occupation.

With the increasing ability of states to establish and maintain control over such ice masses international law may in time recognize the ability to acquire sovereignty over them. A fixed ice mass, for example, which is permanently above high water mark and on which installations can be built and continuously maintained would seem to partake of the nature of territory. The case of floating ice islands is more doubtful. In recent years there have been suggestions that artificial islands erected on piles driven into the seabed should be regarded as portions of state territory but these proposals have never included floating works.

(b) Even if T-3 were considered capable of appropriation in international law, Canada does not appear to have ever demonstrated, in relation to the island, its intention to act as sovereign and an actual exercise of authority over T-3. Both these elements are necessary to establish title by affective occupation in international law. Under the modern doctrine of effective occupation settlement is not necessary. It is enough if a continuous and actual exercise of authority over the territory is exercised, as and when required. However Canada, so far as we are aware, has never exercised any form of state activity over T-3 such as legislative acts, visits by officials of the Canadian Government, establishment of bases, etc.

It is also significant that the U.S. base on T-3 was established without seeking or obtaining the permission of the Canadian Government and our tacit acquiescence in this may be deemed inconsistent with any claim of Canadian sovereignty over the island. Since we did not assert sovereign rights when the U.S. set up its base on T-3, or subsequently, we would be in a weak position legally in attempting to assert an existing title to this island.

(c) [This section remains classified under: s.15(1)]

Conclusions

At the present time it is doubtful whether a floating ice island like T-3 is subject to appropriation by any state. Even if it were regarded as capable of effective occupation Canada has not demonstrated its intention to act as sovereign and has failed to exercise effective authority in relation to the island. A Canadian title cannot be established in international law on the basis of the Sector Principle in the absence of effective occupation (as pointed out above, this does not necessarily imply physical occupation but rather an actual and continuous exercise of authority in relation to the island).

Accordingly the Soviet aircraft cannot be considered to have violated Canadian airspace by flying over the island and did not infringe any rules of international aerial navigation.

2. Memorandum, "The Sector Theory and Floating Ice Islands," 20 May 1954

LAC, RG 25, vol. 4, file 9057-40

SECRET

THE SECTOR THEORY AND FLOATING ICE ISLANDS IN THE ARCTIC

This memorandum is an examination of the legal validity of the sector principle in present day international law with particular reference to the question of floating ice islands. The essential problem is whether Canada is entitled to exercise jurisdiction over such islands, as and when required from the mere fact of their presence in the Canadian Sector of the Arctic.

THE SECTOR THEORY

The origin of the sector principle can be traced back to the Anglo-Russian Convention of February 28, 1825 defining the boundary between Canada and Alaska, which provided that the line of demarcation between the territories of the contracting parties should be the meridian line 141° West "dans son prolongement jusqu'à la Mer Glaciale". This definition could be interpreted as referring only to the land boundary. However, when Russia ceded Alaska to the United States in 1867 the treaty stated that the western limit of the territory passes through a point in Behring [sic] Strait on the parallel of 60°31 North Longitude ... and proceeds due north, without limitation, into the Frozen (Arctic) Ocean and inferentially, a similar extension of the eastern limit was implied. In a United States Note of 1896 on the Behring Sea controversy it was argued that the negotiators of the 1825 treaty intended to effect a simple division of territory by prolonging the 141st degree of longitude into the Arctic Ocean - east of this line the territory was to be British and west of it Russian. The British case before the Behring Sea Arbitration Tribunal of 1893, which was upheld by the tribunal, had deduced from the 1867 treaty that U.S. sovereignty was not extended over the sea east of the line forming the western limit of Alaska but merely over any islands in that sea which might afterwards be discovered. A British Parliamentary Paper prepared at the time concluded that "the line drawn through Behring Sea between Russian and United States possessions was thus intended and regarded merely as a ready and definite mode of indicating which of the numerous islands in a partially explored sea should belong to either Power ... It is ... very clear that the geographic limit thus

projected towards the north could have been intended only to define the ownership of such islands, in any, as might subsequently be discovered.”

The principle of allocation thus recognized in the case of Alaska was tacitly assumed in the case of the neighbouring territories of Canada and Siberia. The Canadian Government interpreted in this sense the Order in Council of July 31, 1880, annexing to Canada “all British territories or possessions in North America not already included with the Dominion of Canada and all islands adjacent to any of such territories or possessions. In 1907 Senator Poirier, in a speech before the Canadian Senate, advocated polar sectors for states with territories bordering on the Arctic. In 1916 the Russian Ambassador in London sent a Note to the U.K. Government announcing the annexation of certain islands in the Arctic Ocean north of Siberia as forming an integral part of the Russian Empire because they constituted a northern extension of the continental land mass of Siberia.

In the later dispute concerning Wrangel Island, north of Siberia, the Canadian Government originally maintained that this island was part of Canadian territory on the basis of occupation. However it was later decided not to press the Canadian claim in order to avoid similar claims in the Canadian sector.

Canada has never claimed a sector by any express declaration. The Canadian claim to the sector from 60°W to 142°W has been indicated in many ways, however, from the publication of maps showing this sector as Canadian to the 1925 statement to the House of Commons by the Hon. Charles Stewart, Minister of the Interior, that Canada claimed as Canadian all territory “right up to the North Pole”. This was followed in 1926 by Order in Council P.C. 1146 of July 19 which created various Arctic Preserves bounded by these sector limits and required trading companies, prospectors and trappers to obtain permission of the R.C.M.P. before engaging in any commercial activity in these regions.

The Russian Government in its decree of April 15, 1926, formally claimed as Soviet territory all lands and islands, discovered or to be discovered, lying between the northern coast of the U.S.S.R. and the North Pole between 32°4' 35'E and 168°49'30"W which were not at that date recognized as belonging to a foreign state. This decree states the sector principle in its most explicit form – that of a claim to any land that may exist, known or unknown, within the triangle of two meridians of longitude at the eastern and western extremities of territory already held by the Power concerned and continuing to the Pole.

The two other countries concerned with the question in the Arctic – the United States and Denmark – have never specifically declared their adherence to the sector principle.

In the Antarctic, sectors have been claimed by the United Kingdom, Australia, New Zealand, France, Norway, Chile and the Argentine.

The validity of the sector principle as a mode of acquiring sovereignty over territory in polar regions has never been tested before an international tribunal. Arctic sectors are usually justified as being northerly extensions of continental land masses which project into the Arctic circle. In essence they are applications of the principle of geographical proximity and contiguity of territory. Lakhtine, in supporting the legality of the Soviet sector, uses the phrase, “a region of attraction.”

It is very doubtful if the sector theory can by itself be a sufficient legal root of title at the present time. Even when the sector claims of Canada and the U.S.S.R. were first formulated effective occupation was considered to be necessary in order to acquire sovereignty over uninhabited or very sparsely inhabited territory. Nor does the later development of the law relating to title to territory afford any support for a claim to title based on the sector principle alone. The three leading decisions, the Island of Palmas Case (1928), the Eastern Greenland Case (1931) and the Clipperton Island Case (1932) are in harmony in holding that the true tests of sovereignty by effective occupation are the intention and will to act as sovereign plus some actual exercise or display of state authority in relation to the region. In the Island of Palmas Case Judge Huber stated flatly that “the title of contiguity, understood as a basis of territorial sovereignty, has no foundation in international law”. Contiguity, in his view, when invoked as a justification for territorial claims apart from effective occupation, is devoid of legal basis and is at bottom a political claim of the sphere of interest type.

[This section remains classified under: s.15(1)]

In fact, however, as Dean MacDonald points out, a claim to sovereignty under the sector principle “would involve a claim to precisely the region which can be claimed successfully by right of effective occupation. The recent unanimous judgment of the International Court of Justice in the Minquiers and Ecrehos Case, declaring that sovereignty over these channel islets belonged to the United Kingdom in virtue of its long and continuous display of state functions over the group, upholds and applies the principles laid down in the previous cases dealing with Eastern Greenland and the Palmas and Clipperton Islands. These judgments, which have placed the law relating to title to territory on a firmer basis than almost any other branch of customary

international law, confirm the wisdom of Dean MacDonald's final recommendation that Canada's title to its Arctic territories should be asserted and maintained "upon the ground of effective occupation alone as the chief and most satisfactory ground of reliance."

Professor Waldeck of Oxford University, in his valuable study of Disputed Sovereignty in the Falkland Islands Dependencies (1948 British Yearbook of International Law), examines the legal basis for sector claims in both the Arctic and Antarctic and reaches the firm conclusion that sector claims have no legal significance as a basis of title independently of an exercise of state activity in regard to the sector areas. Within the principle of effective occupation, Professor Waldock believes proximity may nevertheless operate to raise a presumption of fact that a state is exercising sovereignty over outlying territory in which there is no noticeable impact of its state activity. In his view, when there is a clear intention to exercise sovereignty over a geographical area evidenced by a display of sovereignty, the contiguity of the outlying territories, by raising a presumption of an actual intention and ability to control those outlying areas, operates to give the claimant state the benefit of the rule that effective occupation need not make an impact in every nook and cranny of the territory.

FLOATING ICE ISLANDS

The floating ice islands which have been discovered in the Arctic are composed of ice so hard and thick that they retain their shape and general appearance for years. T-3, for example, is about 31 miles in circumference and 5 miles across at its narrowest part. Holes which were bored into the island in 1952 revealed many separate layers of dirt. Ice islands, like icebergs, follow the currents of the ocean and are not to be confused with ice floes, which are moved by wind pressure.

Thus far international law has not recognized the right of a state to establish sovereignty over ice islands whether floating or permanently fixed. Such areas have generally been regarded as solidified portions of the high seas and not capable of effective occupation. With the increasing ability of states to establish and maintain control over such ice masses international law may in time recognize the ability to acquire sovereignty over them. A fixed ice mass, for example, which is permanently above high water mark and on which installations can be built and continuously maintained would seem to partake of the nature of territory. The case of floating ice islands is more doubtful. In recent years there have been suggestions that artificial structures erected on piles driven into the seabed should be regarded as subject to state jurisdiction but these proposals have never included floating works. The International

Law Commission's draft articles on the Continental Shelf would give the coastal state the right to construct and maintain on its continental shelf installations necessary for the exploration and exploitations of natural resources. The draft articles specifically provide, however, that "such installations, though under the jurisdiction of the coastal state, do not possess the status of islands". Thus while they would not be of the true nature of territory the installations would be under the coastal state's jurisdiction for the purpose of maintaining order and of the civil and criminal competence of its courts.¹³⁹

The chief defect of floating ice islands, from the point of view of their occupation and use, is their relative lack of permanence and transitory movement. An island which is here today and gone tomorrow is not of the nature of territory and cannot be subjected to the control which is possible over a structure erected on piles driven into the sea-bed. At the present time, therefore, it is very doubtful whether floating ice islands can be appropriated and subjected to sovereignty. If, as is suggested, such islands are not capable of appropriation under existing international law, the Soviet aircraft which recently flew over T-3 did not violate Canadian airspace by flying over the island and did not infringe any rules of international aerial navigation. Likewise, the movement of an ice island with a Soviet scientific establishment into the Canadian sector of the Arctic would not entitle Canada to exercise jurisdiction over the island simply because such islands cannot be considered to be the object of sovereign claims by any state as the law now stands.

CONCLUSIONS

This review of the sector theory indicates that while the principle was of considerable value to Canada as the original basis of our claim to control all the land areas north of the Canadian mainland to the Pole, the need for reliance on this doctrine has progressively diminished as our effective occupation of these northern territories became more and more firmly established. At the present time it is believed that the Canadian title to all, or nearly all, of our Arctic territories can be asserted on the basis of effective occupation, both in respect to intention and in the actual display of sovereignty over these regions.

Nevertheless the sector theory may be still of value to Canada in the following ways;

- (a) It is a clear indication of Canada's intention to exercise sovereignty over any territories susceptible of occupation north of the Canadian mainland between 60°W

¹³⁹ These draft rules were codified in the 1958 Convention on the Territorial Sea and the Contiguous Zone and are reproduced in this volume as document 16

and 141°W. Our intention to act as sovereign in this regard has been demonstrated in official statements, maps, orders in council and other forms of state activity.

(b) By affording a convenient geographical area within which our intention to exercise sovereignty over territory is evident to all and the actual display of Canadian sovereignty increasingly effective, the sector theory operates to give Canada the benefit of the rule that effective occupation need not be felt in every nook and cranny of the territories claimed.

(c) If permanently fixed or floating ice masses are ever recognized as capable of appropriation the sector principle would afford evidence of our intention to exercise sovereignty over any such ice masses within the Canadian sector.

The sector theory was originally developed as a method of allocating territories, [this section remains classified under: s.15(1)]. It is true that for purposes of game conservation Canada has in the past established Arctic preserves coextensive with the entire area of the Canadian sector. However, such jurisdiction and control has been claimed only for purposes of conservation and did not purport to change the character of the waters as high seas. It seems most unlikely that any claims to sovereignty over portions of the polar seas based on the sector principle would be recognized at the present time. Nor would Canada wish to assert a claim which would be at variance with the general principle of the freedom of the high seas which we support.

Under existing international law it is very doubtful if floating ice islands can be subjected to the sovereignty of any state. The solution of this problem, as in the case of artificial structures erected on the continental shelf, lies in international regulation. Until some international rules are established in this regard Canada's right to exercise exclusive jurisdiction over floating ice islands from the mere fact of their presence in the Canadian sector of the Arctic cannot be firmly grounded in law. Instead of attempting to assert a legal title to these ice islands it would appear preferable to exercise constant surveillance over them by aircraft, set up Canadian stations on some of them, T-3 for example, and, if necessary, reaffirm our intention to claim sovereignty over any territories within our sector, whatever their nature, which are capable of appropriation, now or in the future.

Department of External Affairs
August 30, 1954

3. Paper Prepared by the Arctic Section, Defence Research Board, "Russian Activities on the Canadian Side of the Pole," August 12, 1954

DHH, 2002/17

SECRET

RUSSIAN ACTIVITIES ON THE CANADIAN SIDE OF THE POLE

Early History of Ice Islands

In early 1946 large tabular ice masses several miles in extent and between approximately 100-150 feet thick were seen on USAF flights to the pole in the Alaskan and Canadian sectors of the polar basin. These tabular masses have since been called "ice islands". The drift of three of these ice islands in the polar basin has been plotted and it has been shown that they follow an elliptical orbit, the major axis being some 900 miles long and lying on a line from northern Ellesmere Island to Wrangel Island in the Soviet Arctic, with a minor axis of some 400 miles lying approximately on the 130° meridian.

In March 1952 the USAF (Alaskan Command) occupied one of these islands, earlier designated as T3, and in conjunction with Air Research and Development Command carried out scientific investigations from the island until 14 May 1954. During this period wide publicity was given to their activities and several scientific papers concerning conditions on and surrounding the ice island have been published. Major emphasis was placed on meteorology but some attention was paid to other geophysical problems. Lack of qualified staff prevented an overall programme being carried to completion.

Russian Interest in Ice Islands

The Soviet Union has been carrying on a systematic study of ice meteorological and geophysical phenomena in the polar basin since the early 30's in connection with the development of their strategically important Northern Sea Route. Since about 1940, however, no information on the nature of their activities has been available in the western world until 1954, when various newspaper releases mentioned widespread post-war investigations throughout the Arctic Ocean.

So far as is known the first openly expressed interest by the Soviets in “ice islands” was indicated in an article in the periodical “Ogonek” in March 1954. On April 29th a report was made to the President of the USSR Academy of Sciences in which it was definitely stated that “complicated research has been carried out” in the polar basin specifically mentioning expeditions in 1948 and 1949. On 5 May 1954 an IL2 aircraft of the Northern Sea Route Administration flew over T3 while it was still occupied by the USAF and lying 83 nautical miles north of the coast of Ellesmere Island. It seemed then for a number of reasons that this aircraft must have come from a Soviet polar station, probably quite near the pole.

Recent Russian Activity

Two days before this flight a Northern Sea Route Administration report, presumably covering the period 1952-3, stated that “the Chief of the Administration of the Northern Sea Route is undertaking new explorations this year”. On 16 May “Pravda” carried an article on “Ice Islands” claiming prior discovery of the floating ice masses. The article also discussed their [section illegible]. 77°22N 174°20E. This station was therefore on this date about four miles outside the Canadian sector. If this ice island behaves in the same manner as T3 the station will enter the Canadian sector moving further to the east and then south perhaps some time in the future approaching to as little as 10 miles from the Ellesmere Island coast.

Immediately preceding this announcement V. Frolav, Director of the Arctic Research Institute, published in Izvestia a paper entitled “New Research in the Arctic” in which the origin and drift of these ice islands was discussed, stating they followed “closed trajectories”. It is therefore apparent that the Soviets understand the mechanics of drift of these islands, and therefore by their own admission must have been quite aware that one of their stations would drift into the Canadian sector, which in all probability it already has done. For this reason it is of interest to speculate on their motives.

Sector Principle

The sector principle which divides the polar basin into national sectors has been adhered to by the Soviet Union. The United States does not recognize it while Canada so far as can be ascertained at the moment has not clarified its position in this respect although game laws of the Northwest Territories define the Arctic Island Game Reserve as extending to the pole.

The legal aspects must obviously be clarified before any protest to the Russians over a violation of the sector principle can be made, but it is a certain fact that the Russians

have mounted a polar station which they knew would undoubtedly enter the Canadian sector of the polar basin. This is somewhat analogous to the Soviets having a known weather reporting submarine in the Labrador Sea and drifting in towards the Labrador coast.

It seems therefore most logical that this station should be reconnoitred immediately and continuously while in the Canadian sector.

Results of Reconnaissance

One good reconnaissance flight in clear weather together with photographic coverage should ascertain with ease the scope of the Russian activities. For instance study of antenna arrays might give an indication of whether the station is being used to monitor radio traffic into Thule and the arctic weather stations. Tracks to holes or to the edges of the ice island or floe would indicate whether or not a serious programme of oceanography was being carried out, and evidence of other instrumentation would indicate other types of research.

An even more important result of such a reconnaissance might be the clearer realization of the extent of Soviet activities in the polar basin. Unfortunately at the moment it can be said without dispute that the ice covered sea beyond the north coast of Canada is now scientifically, and possibly from a military viewpoint, entirely dominated by the Soviet Union.

It is therefore suggested that serious consideration should be [sentence illegible]

Conclusions and Recommendations

The following facts appear validated.

- (1) The USSR has occupied polar stations in their eastern arctic sector since 1948. This is a continuation of their well reported operations in the 1930's.
- (2) They are now occupying stations in or on the very fringe of the Canadian-Alaskan sectors.
- (3) The scope of their activity in the polar basin has been very large compared with the combined Canadian-U.S civil or military activity in the same area.
- (4) The USSR recognizes the sector principle and has stated so firmly in the past. This precludes activity on our part in their sector without their consent or at any event over

their bitter objections.

(5) They are now or soon will be in the Canadian sector on the Canadian side of the pole, and if they remain on their ice island evidence shows that it may come within possibly 10 miles of the Ellesmere Island coast or within 500 miles of Thule Air Base.

(6) The scope and range of their activities are not fully known.

(7) Reconnaissance of this ice island appears to be a Canadian responsibility since it now lies directly north of the Canadian mainland.

It is therefore recommended:

(1) That an immediate reconnaissance by the RCAF be made of the area to determine whether the station is in the Canadian sector.

(2) If it is, that continuing reconnaissance by the RCAF including good photographic coverage be carried out to ascertain so far as possible the scope of the work and any changes in location of the station. That the Department of External Affairs be informed

4. Memorandum, "Russian Activities on the Canadian Side of the Pole," October 8, 1954

DHH, 2002/17

SECRET

MEMORANDUM

HQS 9395-34/342 TD
4-279 (JAG/g)

8 Oct 54

DMO&P

Russian Activities on the Canadian side of the Pole
Paper DRBS 135-590-327-1 (Arct) dated 12 Aug 54

The Department of External Affairs has recently made an exhaustive study of the sector theory and floating ice islands in the Arctic. A copy of the legal paper prepared on the subject is attached.

2. The following conclusions may be drawn from External's paper:

- (a) It is doubtful if the sector theory can by itself be a sufficient legal root of title at the present time.
- (a) As yet international law has not recognized the right of a State to establish sovereignty over ice islands whether floating or permanently fixed.
- (b) Canada has not expressly claimed a sector but has in the past hinted that on the basis of the sector theory Canada had sovereignty over all territory from 60°W to 141°W. For example official maps of Canada prepared show this sector as Canadian.
- (c) Effective occupation is a sufficient basis on which to claim title and sovereignty though such occupation need not "make an impact in every nook and cranny of the territory."

3. It seems to follow that the status of the floating ice islands in the Arctic presents a two-fold difficulty, viz. the dubious quality of title based on the sector theory and the

doubt as to whether floating ice islands can in law be considered the object of sovereign claims by any State.

4. The USSR has officially adhered to the sector theory and would have to base any protest against Canadian air reconnaissance on the claim of effective occupation of the floating ice islands and deny the validity of the sector theory when such ice islands enter the Canadian sector. External Affairs has expressed the opinion that Canada could not protest air reconnaissance by Russian aircraft over floating ice islands in the Canadian sector. External Affairs suggests that air reconnaissance by Canada in the Canadian sector would strengthen her claim by joining sector theory with the active surveillance to indicate an intention to exercise sovereignty within the Canadian sector.

5. It is suggested that the Department of External Affairs should be informed before any decision with respect to DRB's recommendations 1 and 2 is taken. This suggestion is based on the real possibility that Canadian air reconnaissance might give rise to an international air incident if the USSR decided to actively interfere with such *[word illegible]*.

5. Memorandum, "Russian Activities on the Canadian Side of the Pole," October 14, 1954

DHH, 2002/17

MEMORANDUM

HQS 9395-34/342 (FIS)

SECRET

14 Oct 54

DMO & P

Russian Activities on the Canadian Side of the Pole

Comments

1. Reference is made to DRBS 135-590-327-1 (Arct) dated 12 Aug 54 entitled "Russian Activities on the Canadian Side of the Pole" and your memorandum HQS 9395-34/342 (DMO & P Coord) dated 6 Oct 54.

2. In some respects, the DRB paper has been overtaken by events since the RCAF photographed the Drift Station known as NORTH POLE 3 on 20 Sep 54. The Chairman of the Chiefs of Staff Committee was briefed on the results of this reconnaissance.

3. With regard to the paper under reference, scientific activities in the extreme North may be divided into two broad groups:

(a) Meteorological

(b) Other activities such as study of ice, hydrography, study of marine life, and of magnetic conditions.

In the meteorological field:

(a) The USSR has an extensive network of meteorological stations throughout the Northern USSR. This includes stations on the edge of the polar seas and on the islands between those seas and the Arctic Ocean.

(b) Norway has meteorological stations on SPITZBERGEN and BEAR ISLAND.

(c) Denmark has a ring of stations around GREENLAND, one of which lies in the extreme NE corner of the island.

(d) the United States has a number of stations on Greenland, participates in the Canada-US joint weather programme, has a number of stations in Alaska and the USAF has made weather reconnaissance flights to the NORTH POLE regularly two or three times a week since at least 1948.

(e) Canada has a number of stations on the *[text illegible]*. These stations take normal weather observations both surface and upper atmosphere up to 55,000 ft. The Soviet Union programme is the largest.

5. The Soviet Union is the only country which has undertaken long term systematic research in the Arctic Basin. The Chief Administration of the Northern Sea Route was formed in 1932 to develop an Arctic shipping lane between the Atlantic and Pacific Oceans and it immediately became apparent that to be successful it would have to obtain detailed knowledge of the ice, weather and hydrography of the Central Arctic Basin.

6. Between 1935 and 1941, four drift expeditions on ships and one on ice were carried out and three landings made on unprepared sea ice. Drift work was suspended during the Second World War.

7. From the beginning, the air services of the Chief Administration of the Northern Sea Route were made responsible for reconnaissance to support both short term and long term ice forecasts. Landings on unprepared sea ice were also made. This activity continued throughout and after the War. One of its discoveries was the LOMONSOV RANGE which runs between the NEW SIBERIAN ISLANDS and ELLESMERE ISLAND and GREENLAND and divides the Arctic basin into two distinct parts.

8. Early in 1954, the Soviet Government undertook a Programme of research in the Central Arctic Basin which is the largest attempted so far. According to the Soviet press, the purpose is to complete the exploration of the region in order to ensure the maximum development of the Northern Sea Route. A major feature of the programme is the decision to attempt observations on a broad, long term basis rather than the "expeditionary" basis of the past.

9. The 1954 operation mounted jointly by the Soviet Academy of Sciences and the Chief Administration of the Northern Sea Route consists of four parts; two drift

stations, a scientific expedition and a regular series of flights by one or more flying laboratories to make meteorological, aerological and ice observations. The drift stations are obviously intended to function over a period of many months and possibly several years. The Soviet press has revealed that almost all known Arctic specialists are engaged in the programme. It is not believed that any unusual instruments are being used and, as far as can be determined, very high (up to 50,000 ft) air soundings are not being taken.

10. Advances claimed so far include:

- (a) That ice conditions East of the LOMONSOV RANGE are the key to ice conditions all along the Northern Sea Route.
- (b) That the theory of a polar cap of cold air and fairly permanent area of high pressure is wrong with consequent effects on the forecasting of [illegible].

11. The full purpose of this year's expanded programme is not clear yet. Its connection with the Northern Sea Route is obvious since it is 4650 miles long and its use reduces the journey from LENINGRAD or ARCHANGEL to VLADIVOSTOK by more than half. It will also contribute much new basic knowledge. Other possible purposes are:

- (a) Collection of magnetic data for use in the employment of guided missiles.
- (b) Mapping of the floor of the Arctic Ocean to enable it to be used by submarines. The importance of this is more than is apparent since pack ice, the most prevalent form of ice is only about ten feet deep and German submarines operated in the KARA SEA during the Second World War.
- (c) Use of ice islands as staging bases in time of war.

12. Other countries scientific efforts may be summarized as follows:

- (a) The US having carried out Exercise SKI JUMP in 1950, 51 and 52. Working out of POINT BARROW, four stations were set up between there and the NORTH POLE and some oceanographic work was done.
- (b) Ice Island T3 was occupied between Mar 52 and May 54. Some research was carried out but it was not systematic.

(c) Groups of scientists from Canadian Government Departments, universities, the US Government and a few foreign universities go into the Canadian North each year. As is obvious, they have neither the scope nor scale of the Soviet effort.

(Sgd) Sarantos, Lt Col
for EE.S. Tate
Colonel
Director of Military Intelligence

6. 569th Meeting of the Chiefs of Staff Committee, October 28, 1954

DHH, 2002/17

HQS 9395-34/342 (DMO&P Coord)

Prepared by: DMO&P
In consultation with: DMI
JAG

SECRET

Recommended by: DGPO

569 MEETING OF CHIEFS OF STAFF COMMITTEE ITEM NO. 4

RUSSIAN ACTIVITIES ON THE CANADIAN SIDE OF THE POLE
(DRBS 135-590-327-1 (ARCT) d/12 Aug 54, passed by CSC 7-17 TD 971 d/4 Oct 54)

BACKGROUND

1. The subject paper, submitted by the Chairman, Defence Research Board describes suspected Russian scientific activities on an "ice island" in the Arctic basin. Since, on 12 Aug 54, the path of the "island" as was predicted to be such that the island, bearing the Russian party would shortly enter waters within the Canadian sector, CDRB recommended that the RCAF conduct an immediate reconnaissance to establish the location of the "island" to be followed by further reconnaissance whilst the island remained in the Canadian sector. From such reconnaissance it was hoped to determine the scope of Russian activities on the Canadian side of the pole and to develop information for the use of the Department of External Affairs.

COMMENT

2. However, in some respects, the DRB paper has been overtaken by events as the RCAF conducted a photographic mission on 20 Sep 54 and established the position of the "island" in reference as approximately 88°36'N, 55°25'W. (Flag A). Since the

eastern extremity of the so-called Canadian sector is 61°00'W, the “ice island” was, on 20 Sep 54, actually located within the Danish sector.

3. More recently (26 Oct 54) a representative of the Arctic Section, DRB, stated informally that more recent information on the ice formation indicates that it is considerably shallower than had been estimated earlier, and is, in fact, an “ice floe.” This representative further stated that recent information indicates that the “ice flow” is more likely to continue to drift [sentence illegible].

5. In view of the relative vastness of the Soviet research effort in the Arctic, and the possible related developments, it is considered advisable that Canadian authorities keep informed regarding Soviet activities, particularly in the vicinity of the Canadian sector.

6. Although there is little possibility of exercising control, or otherwise objecting to Soviet activities in the Canadian sector, External Affairs has suggested that Canadian claims to sovereignty in the sector might be strengthened by active surveillance of the area – Flag C para 4. A legal paper, prepared by External Affairs, on the Sector Theory is attached as Flag D.¹⁴⁰

RECOMMENDATIONS

7. I recommend that the Chiefs of Staff Committee support the principle of following Soviet research activities in the Arctic by various means, including air reconnaissance as a means of acquiring information regarding projected Soviet capabilities.

¹⁴⁰ Document 2, “The Sector Theory and Floating Ice Islands.”

7. Extract from 569th Meeting of the Chiefs of Staff Committee, “Russian Activities on the Canadian Side of the Pole,” November 3, 1954

DHH, 2002/17

(SECRET)

RUSSIAN ACTIVITIES ON THE CANADIAN SIDE OF THE POLE

21. The Committee had for consideration a paper prepared by the Arctic Section, Defence Research Board, outlining recent Russian activities in the Canadian arctic. The paper specifically recommended that reconnaissance of a Russian Polar Drift Station be made to determine the scope of Russian activities on the Canadian side of the North Pole.

(CSC 7-17 TD 971 of 4 October, 1954)

22. The Chief of the Air Staff reported that the existence of the drift stations had come to the attention of the Director of Air Intelligence early in September. A reconnaissance of the drift station had been made by 408 Photographic Squadron on 20 September, 1954. It had been determined that the “ice island” referred to was not in Canadian waters. Various photographs and observations had been made, as a result of which the following conclusions have been reached:

(a) From visual observation it was concluded that the basic purpose of the site was as declared by the Soviet press, namely that it was mainly concerned with meteorology, aerology, oceanography and zoology. This conclusion was further substantiated through photographic interpretation of the drift station.

(b) Aerial installations are normal and appropriate to the type of communications activity that had been attributed to the drift station.

(c) The matter of resupply was not fully resolved at the time, because neither visual observation nor photographic interpretation indicated the presence of a landing strip. However, as a result of information now available from a later reconnaissance it has

been concluded that there must be an airstrip in the vicinity. The possibility exists that the airstrip was within one hundred mile radius of the main drift station.

23. The Associate Under Secretary of State for External Affairs expressed the view that as Canada had not subscribed to the Sector Principle with regard to the waters in the arctic, it would be inappropriate to pursue the matter further through diplomatic channels.

24. It was agreed to note the report of the Chief of the Air staff and the views expressed by the Associate Under Secretary of State for External Affairs.

8. ND-116, "Sovereignty in the Canadian Arctic," January 14, 1955

LAC, RG2-B-2, file 6181

MEMORANDUM FOR THE ADVISORY COMMITTEE ON NORTHERN DEVELOPMENT

SOVEREIGNTY IN THE CANADIAN ARCTIC

Introduction

During the past few months the U.S.S.R has established two or more scientific parties on the ice in the Arctic Ocean. On 20 September, 1954, one of these stations was very near the north geographical pole at approximately 89° 26'N and 55° 0'W, between Greenland and the pole. This situation has given rise to a re-examination of the sector theory, the status of ice islands (semi-permanent ice masses of great thickness which drift in the Arctic Ocean) and the possible implications of the presence of a Russian scientific party in the Canadian sector.

...

Floating Ice Islands

The ice of the floating ice island is so hard and thick that they retain their shape and general appearance for many years. The one known as T-3 is about 31 miles in circumference and 5 miles across. The islands drift with the currents of the ocean but unlike ice floes are not moved by wind pressures. The ice islands constitute a unique problem in international law now that countries have developed the ability to establish and maintain control over them by means of parties living on the ice. The islands are large enough to be compared with an ordinary island over which sovereignty can be exercised. However their transitory nature and relative permanence make it difficult to consider them as of the true nature of territory, and it is very doubtful if they can be appropriated and subjected to sovereignty. If this is the case the Soviet aircraft which recently flew over T-3 did not violate Canada air space and did not infringe any rules of international aerial navigation.

Conclusion

1. A review of the sector theory indicates that while the principle was of considerable value Canada as the original basis of our claim to control all the areas north of the mainland to the Pole, the need for reliance on this doctrine has progressively diminished as our effective occupation of those territories has become more and more firmly established. At the present time it is believed that Canadian title to all or nearly all of our Arctic territories can be asserted on the basis of effective occupation both in respect to intentions and in the actual display of sovereignty over these regions.
2. Under existing international law it is very doubtful if floating ice islands can be subject to the sovereignty of any state.
3. Because of the doubtful legal basis of the sector theory and the fact that ice islands apparently cannot be claimed as sovereign territory by any state, Canada would have little or no grounds for complaint if a Russian station on an ice island or pack ice drifted into the Canadian sector. There is no reason, however, why Canada cannot maintain regular air surveillance over the station. If some action is thought to be necessary to counterbalance the Russian activities a Canadian party could be established on T-3 and a statement could be made reaffirming our intention to claim sovereignty over any territories in our sector which are capable of appropriation, now or in the future.

9. Memorandum for Legal Division, "Sovereignty in the Canadian Arctic - The Sector Theory," February 8, 1955

LAC, RG 25, file 9057-40

SECRET

February 8, 1955

MEMORANDUM FOR LEGAL DIVISION

Sovereignty in the Canadian Arctic – Sector Theory

Attached is a copy of document ND-116 dated January 10, 1955, submitted to the Advisory Committee on Northern Development by its Secretary. As you know, this document is based on the longer memorandum which your Division prepared a few months ago.

1. Document MD-116 was briefly discussed at yesterday's meeting of the Advisory Committee. I told the Committee that we in External were worried by the fact that there is no policy clearly approved by the government relating to sovereignty in the Arctic and, similarly, there is no "party line" approved by the Government for use with the public and the press. I said that our Department might at some future time come back to the Committee with a proposal that something be submitted to the Government for definite approval. There was a favourable reaction to this idea in the Committee.
2. I should be grateful if Legal Division would consider carefully within the next month or two what might be put up to the Government. It may not be feasible to submit to the Government in the foreseeable future a definite policy to govern Canadian claim to sovereignty in the Arctic. However, it might be easier to ask the Government to approve a public line which, on the one hand, reserved the possibility of Canada making further claims in the future and, on the other hand, did not assert too broad a claim at the present time.
4. Please try your hand at a draft memorandum to Cabinet and we will see what it looks like. It may be that it is not possible to draft anything that can be sent to Cabinet this spring, but I think that we should make the attempt.

5. In such a memorandum, brief reference might be made to the public statements which have already been given out by or under the auspices of the Canadian Government. I have in mind Mr. Pearson's article in Foreign Affairs, the statements in the Canada Year Book and the Order-in-Council or regulations relating to the Arctic game preserve.

M.H. WERSHOF

10. Memorandum from the Legal Division, External Affairs to the Economic Division, External Affairs, “Proposed Tourist Flights to the North Pole and Ice Island T-3,” May 25, 1955

LAC, RG 25, file 9057-40

From a legal point of view, the letter of March 7, 1955 from the United States Air Force to Mr. Aleson is quite interesting since it: (1) denies control of T-3 by the United States; and (2) leaves open the question of whether control of T-3 properly rests with Canada or is open to the use of all nations, presumably as a solidified portion of the high seas.

2. Our general views on this question are set out in the attached copy of a paper on “The Sector Theory and Floating Ice Islands in the Arctic”, dated August 30, 1954. In our opinion, international law does not at present afford an adequate basis for asserting claims to sovereignty over floating ice islands, and until some international rules are established in this regard Canada's right to exercise exclusive jurisdiction over floating ice islands from the mere fact of their presence in the Canadian sector of the Arctic cannot be firmly based in law. However, from the fact that ice islands are not yet recognized as capable of appropriation by any state, it logically follows that Canada is entitled to exercise surveillance by aircraft over ice islands within the Canadian sector and to set up stations on any of them. Any such activity on our part, while not amounting to appropriation in the present state of international law, cannot infringe the rights of other states.

3. From a legal point of view it is desirable that the Canadian Government be consulted before any foreign state or the nationals of a foreign state make use of any of the ice islands within the Canadian sector. This will help to provide a basis for the assertion of Canadian sovereignty if international law should eventually recognize the right of states to subject ice islands to their sovereignty. It is, therefore, to our advantage if requests for the use of any of the ice islands within the Canadian sector are channelled through this Department. When the United States Government itself directs such enquiries to the Canadian Government, this is of considerable value internationally.

4. Accordingly, we should not decline to answer such requests or enquiries on the ground that this country does not exercise sovereignty over the ice islands in question.

Rather we should endeavour to deal with any such requests as though the Canadian Government were the only authority competent to pass on the question without making any express claim to sovereignty over the islands.

5. I presume that you will be seeking the views of other interested Government Departments, particularly Northern Affairs and National Resources, Transport and National Defence, before replying to Mr. Aleson's letter. From a legal point of view, it is immaterial whether permission is or is not given to Mr. Aleson to land on T-3. The important consideration is that the request to make use of this ice island will have been considered and passed upon by the Canadian Government.

[Gilles Sicotte]
Legal Division.

11. Letter from Jules Leger to Deputy Minister, Northern Affairs and Natural Resources, 29 March 1956

LAC, RG 25, file 9057-40

The Deputy Minister
Department of Northern Affairs
and Natural Resources,
Ottawa

Location of Soviet Occupied Ice Islands in "Canadian Arctic Waters"

As you know the following question was asked in the House of Commons on Orders of the Day for March 22: "Are any Russian airfields established on ice floes and presently in Canadian Arctic waters, known as severnyi-polyus No.6 and severnyi-polyus No.4?".

2. The factual information contained in the draft answer, a copy of which is attached, was obtained from open sources through intelligence agencies in the Department of National Defence. More precise information, particularly concerning the position of these ice islands is known and on the basis of this I understand there is no doubt that the ice islands are located outside the so-called Canadian sector. I am confirming this understanding with the Deputy Minister of National Defence and at the same time seeking his concurrence in the draft answer.

3. With regard to the last sentence it is considered that it is appropriate to reply using the same terminology as the question. Since Canadian claims to water areas in the Arctic have not been defined and since none of the positions are in the so-called Canadian sector the expression "Canadian Arctic waters" is capable of being construed to include as much of the waters of the sector as one might think are Canadian. However, it is thought that the main purpose of the question is not concerned with the extent of Canadian claims in the Arctic but rather with the possible proximity to Canada of floating ice islands with Soviet airbases on them. To try to dispel any possible ambiguity might lead to a request that Canadian Arctic waters be defined. It is true that in statements by Mr. Lesage and yourself before the Special Committee on Estimates (Proceedings No. 15, Wednesday, March 23, 1955 Department of Northern Affairs and Natural Resources), the inference is quite clear that Canada has never formally claimed water and ice in the so-called Canadian sector. This could be

reiterated but it is considered that to do so might very well give rise to supplementary questions concerning the extent of Canadian sovereignty over ice and water areas in the Arctic. The only reply which could be given at the moment, which was not based on more than tentative conclusions, would be that the whole question is under study.

4. I should be grateful if you would let me know whether you concur in the draft answer. May I please have your reply in time for the answer to be made by Mr. Pearson, if he so wishes, on Monday, April 10, when the House is to reconvene?

Jules Léger
Under-Secretary of State
for External Affairs

RUSSIA – POSSIBLE ESTABLISHMENT OF ICE AIRFIELDS

Draft Answer to question asked
in the House of Commons
on March 22, 1956

Several ice islands occupied by Soviet personnel and drifting in Arctic waters have come to our attention. They appear to be used only as weather stations and for other scientific purposes. They are supplied by transport aeroplanes and they also make use of helicopters. According to recent reports the Station S.P. 4 is located somewhere near 87.5 N 175.6W. The station S.P. 5 is located somewhere near 86.3. N 95.8 E. Soviet authorities have announced the mounting of a new station S.P. 6 to go into operation this spring. None of these ice islands is in Canadian Arctic waters.

12. Memorandum for the Minister, "Soviet Drifting Research Stations in the Arctic," 28 May 1956

LAC, RG 25, file 9057-40

On May 22, in the External Affairs Committee, Mr. Fleming asked whether the Department is aware that the Soviet Union has recently mounted a new drifting station on an "ice island" called North Pole Six, which is the third such station now maintained by the Russians, and whether this station is in Canadian territorial waters or waters over which Canada asserts sovereignty. You gave an interim reply saying "We do learn from time to time about Russian stations being established in such places for scientific purposes; the Russians sometimes announce it. None of these ice islands, as they have been called is situated as far as I know in Canadian territory. There is a little doubt as to what constitutes territory in permanently frozen seas; the question has not yet been established in international law. But this is a matter of some importance and I would like my answer to be exact in all its details, so perhaps we should prepare a statement indicating what is happening and how important it is to us."

I attach a draft of a statement concerning Soviet drifting stations which you might wish to make in the Committee as a follow-up to your interim reply. This statement is based on the latest unclassified information available in JIB and on what you said in the House on April 9 in reply to a question by Mr. Nesbitt (Oxford).

The suggested reply is really the short answer to Mr. Fleming's question, that is that we are aware of the mounting of the new station and of the other two stations to which Mr. Fleming refers and by implication, that they are not in "Canadian territorial waters or in waters over which Canada asserts sovereignty". However, the proposed reply ignores the possibility that Mr. Fleming had in mind that all the waters in the Canadian Sector are claimed by Canada when he used the expression "Canadian territorial waters or waters over which Canada asserts sovereignty". This can be done so long as none of the ice floes is in the Canadian Sector, as is the case. In fact any formula which might be used, such as "None of these ice floes is in Canadian Arctic waters" or "None of these ice floes is in waters in what is sometimes called the Canadian Sector" as an alternative to the one used in the proposed statement, i.e., "All of these ice floes are in the area between the coast of the USSR and the Pole", enables the listener to draw the particular inference which coincides with his conception of the extent of Canadian claims in the Arctic.

However, while none of these drifting research stations is at present in the Canadian Sector, the latest information suggests that the new station may drift into waters within the Canadian Sector in 1957 and that one of the old stations, Drift Station Four, may drift into the Canadian Sector this year. The present position of the new station is 250 miles Northeast of Wrangel Island, which in turn is approximately 100 miles North of the coast of Siberia at a point approximately 300 miles East of the Bering Strait. This is about 1200 miles, as the crow flies, from the boundary of the Canadian Sector. Drifting Station Four, one of the “old” stations, is about 300 miles from the Canadian Sector boundary. In this connection you may be interested in perusing the attached memorandum and map which contains the latest unclassified information available on Soviet drifting stations in the Arctic.

As you know, Canada has never claimed a sector by any express declaration. In 1925 the Honourable Charles Stewart, Minister of the Interior, stated in the House of Commons that Canada claimed as Canadian, all territory “right up to the North Pole”. On December 8, 1953, the Prime Minister stated in the House of Commons “We must leave no doubt about our active occupation and exercise of our sovereignty in these Northern lands right up to the North Pole”. However, maps published by the Department of Mines and Technical Surveys have for many years shown the Canadian boundary in the Arctic as being coincident with the Sector lines and various Arctic Preserves have been created by Order-in-Council, the boundaries of which are likewise coincident with the boundaries of the Sector.

Undoubtedly the aforementioned public actions and statements along with various periodical articles have been interpreted as indicating a Canadian claim to the Sector and it is considered that the sector theory may still be of value to Canada as a clear indication of Canada's intention to exercise sovereignty over any territories (water, ice or land) susceptible of occupation north of the Canadian mainland between 60°W and 141°W. We are presently making a legal study of the status of the waters of the Arctic Archipelago but we have not yet arrived at the point where we are in a position to make recommendations to the Government on this question or on the broader question of sovereignty over ice and water areas within the Canadian Sector but not immediately contiguous to the Archipelago.

I think to enter on a discussion at this time on what Canada claims or could claim in the Arctic, apart of course from the land areas, might prejudice any future action which the Government might wish to take. I should like to suggest therefore, that in Committee as little as possible be said in reply to this question but that you in an article entitled “Canada Looks ‘Down North’”, contributed by you to Foreign Affairs in July 1946, you stated “A large part of the world's total Arctic area is Canadian. One

should know exactly what this part comprises. It includes not only Canada's Northern mainland but the islands and the frozen sea North of the mainland between the meridians of its East and West boundaries, extended to the North Pole." consider whether it would be worthwhile to speak to Mr. Fleming beforehand and suggest to him, on a confidential basis, the problem involved and propose to him that an officer of this Department might show to him at his convenience, and on a confidential basis, the secret working paper of this Department on the sector theory and ice islands and the memorandum giving the latest unclassified information concerning the Soviet drifting stations. This might serve to satisfy Mr. Fleming and indicate to him the intricacy of the problem of sovereignty in the Arctic. I recall that we did this a year or so ago when General Pearkes expressed an interest in this question. I might also call to your attention that the terms "ice floe" and "ice island" are being used synonymously both in Parliament and in this Department.

It seems there is a distinction which, though it has little meaning for the general public, has considerable importance for the nature and scale of the stations. An ice island is much larger than a floe. It is enormously thick and is a virtually permanent formation, whereas ice floes are subject to break-up. It is not known that the Russians have ever mounted stations on ice islands though you will recall that the United States did so from March 1952 to May 1954 and again from April 1955 to September 1955. A paragraph on the distinction has been added to the statement as a matter of interest. The Deputy Minister of Northern Affairs and National Resources concurs in the proposed statement.

Draft Statement

[Attached to Previous Document]

On May 22, in this Committee, the Honourable Member for Eglinton (Mr. Fleming) referred to a Soviet News Bulletin published by the Russian Embassy here in Ottawa concerning the occupation of an ice island by Russian scientists known as North Pole Six, reported to be the third such station now maintained by the Russians. Mr. Fleming asked whether the Department was aware of this and whether I was in a position to make any comments as to whether this base is in Canadian territorial waters or waters over which Canada asserts sovereignty. I mentioned that I would prepare a statement on this question.

I should like to assure the Committee that the Government is aware of the activities in question. It was announced on April 21, 1956, by the Soviet press that a new Drift Station was being mounted in the area 250 miles Northeast of Wrangel Island. There are also two other ice floes known to be occupied by Soviet personnel and drifting in

Arctic waters. All of these ice floes are in the area between the coast of the USSR and the Pole.

As I mentioned in the House on April 9, in reply to a question by the Honourable Member for Oxford (Mr. Nesbitt), these drifting stations appear to be used as weather stations and for other scientific purposes.

As a matter of interest I might just say that these stations are mounted on ice floes rather than ice islands. The distinction, I understand, is that the former originate in the ice pack which is in fact frozen ocean, whereas ice islands originate in the shelf ice which protrudes seaward from land areas. The latter are usually much larger than floes, they are enormously thick and are virtually permanent formations whereas ice floes are subject to break-up.

13. Memorandum from J.S. Nutt, "Arctic Sovereignty," June 4, 1957

LAC, RG 25, file 9057-40.

This document has been selectively transcribed to include only those sections relevant
to ice islands

Legal/J. S. Nutt/mr
File No. 9057-40
cc. on 10600-AF-40

SECRET

June 4, 1957

ARCTIC SOVEREIGNTY

...

(c) Sovereignty over ice islands

11. Unfortunately we were unable to land on ice island T3 nor were we able to see it because of ice fog. However, the United States has established a base on it for the second time in several years and probably intends staying on it for some time to come. In fact the United States Base Commander at Thule said he intended to recommend that ice islands be considered for use as Strategic Air Command bases.

12. Apparently T3 is about 40' above the level of the ordinary Polar pack ice and extends about 80' below the surface, being approximately 130' in thickness all told, and I seem to recollect that it is reckoned to be over 2000 years old. Apparently, therefore, the island will last for a good many years. Since ice islands appear capable of more or less permanent occupation and if the Arctic Basin is considered to be res nullius then a case could be made for applying existing principles regarding the accession of territory to ice islands. Whatever the United States view is on the status of ice islands it seems quite clear that the United States attitude does not recognize any Canadian proprietary right in ice islands by virtue of the fact that the ice island is in the "Canadian Sector" or by virtue of the fact that most ice islands are spawned off the ice shelf of northern Ellesmere Island. (I believe this is the case with T3?) Thus, even if Canada can establish a claim to the shelf ice off Ellesmere Island (which I should think ought not to be opposed, particularly in view of the relatively small area involved), I do not think that we could use this title as a basis for asserting some preeminent interest in any ice islands which may originate in this area. This, of course,

would depend on what status might eventually be recognized for the whole Arctic Basin where these ice islands drift. That is, if the sector principle ever gains international recognition we should presumably have some claim to ice islands at least as long as they were within the Canadian Sector.

...

14. Letter from J.S. Nutt to Gordon Robertson, June 14, 1957

LAC, RG 25, file 9057-40

SECRET

J.S. Nutt, Esq.,
Legal Division
Department of External Affairs,
Ottawa, Ontario

Dear Jim,

Thank you very much for your letter of June 7th and for the memo dated June 4th concerning Arctic sovereignty. I have read the memorandum with great interest and I think it is a very valuable contribution in thinking out the complicated and difficult questions relating to Canadian policy with regard to territorial waters in the Arctic, the polar ice cap, and the Arctic Basin generally.

I agree with you that there has to be a good deal more thinking done with regard to our interests in all the above matters. It is not going to be easy to find time to do this among the pressure of all the other urgent things that are clamouring for attention here, but we will have to try to see what is possible.

With regard to the interconnecting waters in the Arctic archipelago, I should think that the importance of an international waterway for international shipping in the foreseeable future is likely to be extremely slight. The season, even with effective ice-breakers and ice reconnaissance, is very short and the hazards of ice are so great that I cannot imagine that a waterway up there will ever be of any significance. However, we will see what can be put together on this.

With regard to the polar ice cap, I have, as you know, been strongly of the view for some time that it is only an invitation to trouble for Canada to pretend to assert a claim to water or ice within our sector lines. In short, I agree with your paragraph 9. I know that there have been a very large number of Soviet landings on the ice within this area. If we pretend to any sovereignty, we have to do something about them and I do not see what we could conceivably do.

With regard to your paragraph 10, I am not sure that there would be much point in suggesting a special regime for the polar ice cap and Arctic basin. Any proposal for "special" treatment could get out of hand and I think our interest is likely to be

predominantly in having the area outside the archipelago limits regarded and treated as high seas. This too, however, we can do some more thinking about.

With regard to ice islands, I agree that we could not hope to base any proprietary right on the fact of their being temporarily within our "sector" or on the fact that they came from the Ellesmere Island shelf. If, however, they are permanent in entity for all practical purposes, is there any reason why they are not capable of possession even though they move? It seems to me that there is not. If they are capable of possession, presumably any country could set up establishments on them and maintain those establishments as long as the islands did not float within the limit of territorial waters off any coast. Presumably it is not impossible to devise ways to keep the ice islands stationary. What are the implications of these possibilities?

I am asking the Northern Administration Branch and the Northern Research Coordination Centre of this department to examine your memorandum and this whole matter and to let me have their views. I shall be in touch with you further after I have them.

Yours sincerely,
Gordon Robertson.

15. Memorandum from Graham Rowley, “Arctic Sovereignty,” July 3 1957

LAC, RG 25, file 9057-40

This document has been selectively transcribed to include only those sections relevant to ice islands

MEMORANDUM FOR THE DEPUTY MINISTER:

ARCTIC SOVEREIGNTY

...

The Arctic Ocean

I agree with you that we should not attempt to claim the pack ice in our sector of the Arctic Ocean, but should consider those parts outside territorial waters to be high seas. Ice islands present a difficult problem as it seems illogical to make a difference between ice islands and ordinary islands on the one hand and between ice islands and pack ice on the other. Having allowed the United States to occupy an ice island in the Canadian sector without protest, it seems in any case too late to attempt to claim sovereignty of ice islands. I suggest that we should consider the occupied parts of both ice islands and pack ice as if they were shipping – they are in fact rafts belonging to the country occupying them and coming under our jurisdiction whenever they enter Canadian territorial waters.

Marginalia:

Mr Rowley

These are interesting comments. I am sending a copy to Nutt

16. Convention on the Continental Shelf, Done at Geneva on 29 April, 1958

This document has been selectively transcribed to include only those sections relevant to ice islands

Article 5

1. The exploration of the continental shelf and the exploitation of its natural resources must not result in any unjustifiable interference with navigation, fishing or the conservation of the living resources of the sea, nor result in any interference with fundamental oceanographic or other scientific research carried out with the intention of open publication.
2. Subject to the provisions of paragraphs 1 and 6 of this article, the coastal State is entitled to construct and maintain or operate on the continental shelf installations and other devices necessary for its exploration and the exploitation of its natural resources, and to establish safety zones around such installations and devices and to take in those zones measures necessary for their protection.
3. The safety zones referred to in paragraph 2 of this article may extend to a distance of 500 metres around the installations and other devices which have been erected, measured from each point of their outer edge. Ships of all nationalities must respect these safety zones.
4. Such installations and devices, though under the jurisdiction of the coastal State, do not possess the status of islands. They have no territorial sea of their own, and their presence does not affect the delimitation of the territorial sea of the coastal State.
5. Due notice must be given of the construction of any such installations, and permanent means for giving warning of their presence must be maintained. Any installations which are abandoned or disused must be entirely removed.
6. Neither the installations or devices, nor the safety zones around them, may be established where interference may be caused to the use of recognized sea lanes essential to international navigation.

7. The coastal State is obliged to undertake, in the safety zones, all appropriate measures for the protection of the living resources of the sea from harmful agents.

8. The consent of the coastal State shall be obtained in respect of any research concerning the continental shelf and undertaken there. Nevertheless the coastal State shall not normally withhold its consent if the request is submitted by a qualified institution with a view to purely scientific research into the physical or biological characteristics of the continental shelf, subject to the provision that the coastal State shall have the right, if it so desires, to participate or to be represented in the research, and that in any event the results shall be published.

...

Article 10

1. An island is a naturally-formed area of land, surrounded by water, which is above the water at high tide.

17. Letter from J.L. Delisle to Legal Advisor, External Affairs, “Soviet Protest Regarding Canadian Arctic Flight,” September 17, 1958

LAC, RG 25, file 9057-40

I attach, for your information, a copy of a memorandum of September 3 to this Division from D.L. (I) Division covering a letter from the Department to the Chairman, Chiefs of Staff, Department of National Defence, concerning a protest made by the Soviet Charge d'Affaires in Ottawa regarding the alleged flight of a Canadian plane over a floating ice island on which a Soviet scientific station is located (a copy of this letter was referred to the Deputy Minister of Northern Affairs and National Resources). I understand that no official reply has as yet been received from the Department of National Defence concerning the enquiries made in paragraph 4 of the letter. However, it appears from a preliminary report that the floating ice concerned is located in the “Soviet Sector” of the Arctic Ocean.

2. It would seem – although it is not entirely clear – that the basis of the Soviet protest is that there has been a violation of air space to which the Soviet Union legitimately makes claim. As it would be difficult, I think, to put the Soviet protest on any other legal basis, it would seem to follow that the Soviet Government claims the ice areas in the Soviet Arctic - at least those which they occupy.

3. The Soviet protest is, I think a matter of some significance to Canada. The Soviet Government has in the past, made no official claim in respect of the Arctic other than the 1926 decree which claimed all land discovered and to be discovered in the “Soviet Sector”. The United

Kingdom Foreign Office working paper on Soviet claims in the Arctic of December 1954 states that “Soviet Union claims as open Polar seas (i.e., seas having a status “nearly identical with that of territorial waters”) all sea areas free of ice and all floating island formation within the Sector”. It seems that in the past this claim has not in fact, been put forward by the Soviet Government but by Soviet writers only. However, the recent Soviet protest seems to bear out the general statement appearing in the United Kingdom Foreign Office working paper.

4. It is perhaps conceivable that the Soviet claim to the floating ice concerned is based not on the fact that it falls within the Soviet Sector, but on occupation of the island. In that event it would, perhaps, not be beyond the realm of possibility that the Soviet

Union might also claim sovereignty over the ice islands which they occupy in the Arctic Ocean lying north of Canadian territory.

5. This new development regarding the Soviet position on Arctic floating ice will no doubt wish to be examined by the Interdepartmental Advisory Committee on Northern Affairs when it undertakes next month its study of Canadian interests in the Arctic.

6. At the present time it would seem that, if the Soviet allegations concerning overflight of Canadian aircraft are borne out, it might be difficult for us to dispute the basis of the Soviet protest without prejudicing the position which the Canadian Government might wish to attempt to adopt with regard to ice areas in the Canadian Arctic. It seems clear that the Soviet protest is a matter of some difficulty which will require careful study before any definite position can be taken.

7. A possible course which might be followed – if the Soviet charges are substantiated – would be to attempt to separate the legal from the scientific aspects of the matter. Perhaps it would be possible to inform the Soviet authorities that having regard to the scientific work carried out on the ice concerned, our aircraft will in future as a matter of courtesy, attempt not to interfere with that work; this decision should not, however, be taken as in any way as involving our attitude to the question of ownership over Arctic ice islands, or air space above them.

[J.L. Delisle]
Legal Division

18. Memorandum from J.S. Nutt, "Arctic Sovereignty," November 14, 1958

LAC, RG 25, file 9057-40

This document has been selectively transcribed to include only those sections relevant
to ice islands

SECRET

CANADIAN EYES ONLY

MEMORANDUM

ARCTIC SOVEREIGNTY

The following are "off-the-cuff" comments on the questions raised in Northern Affairs draft letter to Department attached to Legal Division memorandum of September 22, 1958.

...

Question 4.

Re asserting sovereignty over the so-called ice islands (persistent ice floes of considerable thickness which are believed to have broken off the ice shelf of Ellesmere Island and which provide a floating platform which can be occupied on a more or less permanent basis) in

- (a) the Polar Basin lying to the north of the Canadian mainland.
- (b) the channels lying between the islands of the Canadian Arctic Archipelago.

Is it intended that all ice islands which can be proved (if this can be done) to have originated off Ellesmere Island would be Canadian territory regardless of where situated and by whom occupied or alternatively only that they should be regarded as Canadian only while in the Canadian "sector" and no matter by whom occupied?

The first proposition would very likely be opposed by the U.S.S.R. U.S. practice with regard to ice island T3 indicates they would not acquiesce either.

It is unlikely that a good legal case could be made for basing ownership on source alone. And to suggest that a special status attaches to ice islands while in the Canadian "sector" would be tantamount to claiming that some special regime applied on the "sector" 'which in turn endowed Canada with rights over ice islands therein. It would seem that the only reasonable claim to an ice island in the Polar Basin would be one based on occupation. Even the rights of states occupying ice islands, vis-a-vis those islands, is unsettled. Thus a claim to a single ice island as sovereign territory might give rise to opposition. The practice of the U.S. and U.S.S.R. has been to occupy ice islands and ice floes at will but not to disturb the occupation of the other except for aerial surveillance. There has been no specific claim to sovereignty over an ice island in the sense of claiming continuous rights after the evacuation of an island. However, the U.S. occupied T3 several years ago left and returned recently. It is interesting to speculate what the U.S. attitude would have been had the U.S.S.R., or for that matter Canada (without consultation), put a party on the island.

The question of a possible claim to sovereignty over ice islands within the connecting waters of the archipelago would seem to be governed by similar considerations, i.e., a claim on the basis of source alone would be unlikely to stand. A claim to sovereignty on the basis of location would presuppose status for the waters of the archipelago being such as to confer special status on the ice island. A claim based on occupation would be subject to the same uncertainty as outlined above.

(With regard to question 6, my recollection is that Northern Affairs factual study of the Arctic tells us that the Eskimos fish through the ice on Coronation Gulf well beyond the 3-mile limit. Query whether this would be occupation. And if so, what would be the effect of the disappearance of the ice in summer.)

J.S. Nutt

19. Chairman, Chiefs of Staff to Chairman, Joint Planning Committee, “Canadian Sovereignty in the Arctic,” December 18, 1958.

LAC, RG 24, vol. 8101.

Chairman,
Chiefs of Staff
Canadian Sovereignty in the Arctic

1. Attached is a suggested reply to the Chairman, Advisory Committee on Northern Development, as prepared by JCP in answer to a letter of 30 October 1958 in which the military views of this Department on Canadian Sovereignty in the Arctic were requested. This reply incorporates the views of JAG and JIC.
2. The Deputy Minister also received a copy of the same letter from Mr. Robertson, and as it is considered that only one reply should be forwarded from DND, this reply makes reference to both letters received by this Department. It will be noted that a reply is requested by 31 December 1958.

(JAW Bennett) Brigadier
Chairman
Joint Planning Committee.

[This document, attached to the letter from JAW Bennett (above) has been selectively transcribed to include only those sections relevant to ice islands]

25 December 1958

Chairman,
Advisory Committee on
Northern Development

Canadian Sovereignty in the Arctic

...

As requested in your reference letter the following are the views of this Department on the question posed:

1(a) No military advantage can be determined for asserting sovereignty over that part of the Arctic Ocean which is outside the Canadian Archipelago. The disadvantages are as follows:

i) If Canada laid claim to that slice of the Arctic Ocean extending northwards from the Archipelago to the North Pole, other countries particularly the USSR, would have an excuse to put to the test of international law various claims it has made to sections of the Arctic Basin. It would, therefore, seem desirable to consider the Arctic Ocean as international waters which precludes setting a precedent for other countries and which would preclude any contiguous borders with the USSR.

ii) The problem of exercising sovereignty over the Arctic Ocean to the North Pole, which should include border patrols to be effective, would be very difficult and costly.

iii) Any infractions of these borders would be difficult to determine without continuous patrols and any breach of sovereignty would be difficult to counteract.

iv) If the Arctic Ocean outside of the Canadian Arctic Archipelago is not considered international waters, Canadian reconnaissance would be very restricted.

v) The observation posts on the "Ice Islands" in the Arctic Ocean maintained by USSR and USA are not considered direct military threats to Canada. If the Arctic Ocean is considered international waters observation posts could be established by any country and with the movement of the ice around the North Pole observations can be taken fairly close to USSR territory.

vi) If other countries were to lay claim to slices of the Arctic Ocean which extend northwards from their territories, Canada would be denied freedom of passage by sea to parts of our Canadian northland.

...

2(a) The moving pack ice in the Arctic Ocean to the North of the Canadian Archipelago has very little military significance except as a barrier and therefore there is no military advantage to asserting Canadian sovereignty over it. This moving pack

ice is not sufficiently reliable for missile sites or forward missile control posts and in addition would be very vulnerable to attack. The disadvantages to asserting Canadian sovereignty over this moving pack ice is the fact that it is moving and would not remain in Canadian territory.

...

(Charles Foulkes)
General
Chairman, Chiefs of Staff.

20. ACND Paper, “Canadian Sovereignty in the Arctic,” revised October 19, 1962.

LAC, RG 22, vol. 546, file ROWLEY – ACND 1962.

[This document has been selectively transcribed to include only those sections relevant to ice islands.]

6. Ice in the Arctic Ocean

Most of the Arctic Ocean is covered by pack ice which is made up of large areas of relatively thin floating ice, never more than a few years old, together with a few so called “ice islands,” composed of much older and thicker ice, which has broken off the fixed ice shelf on the north coast of Ellesmere Island. These may be several miles across and over 100 feet in thickness and they may drift in the pack for many years. Aircraft have landed on both types of ice. The position of any base established on the pack ice is constantly changing as the ice moves with the currents and winds.

Before making any decision as to jurisdiction over the normal pack ice and the ice islands, the government will consider every aspect of the question with due regard to the best interests of Canada and international law.

...

Revised 19 October, 1962.
G.W. Rowley & G.M. Carty.

21. Memorandum for Cabinet, “Canadian Sovereignty in the Arctic,” March 20, 1969.

LAC, RG 12, vol. 5561, file 8100-15-4-2, pt. 1.

This document has been selectively transcribed to include only those sections relevant to ice islands

DRAFT MEMORANDUM FOR CABINET

CANADIAN SOVEREIGNTY IN THE ARCTIC

...

III – WATERS AND ICE OF THE POLAR BASIN

Legal Position

9. Canada has never definitively formulated its position regarding sovereignty over the waters and ice of the Polar Basin lying to the north of Canadian lands. Existing international law provides no clear or firm basis upon which Canada could assert a claim to the Polar basin. The difficulty in attempting to apply the sector principle in this respect is that this theory has never been used to claim sea areas in the Arctic or elsewhere. Moreover, as already indicated the legal validity of the sector principle is considered to be doubtful and has never been tested even as regards claims to land territory; only the USSR has officially proclaimed the principle (in 1926) and in doing so applied it only to lands known or unknown lying within its sector.

10. It has been argued that either the sector theory or the doctrine of effective occupation can be applied to ice formations in Arctic areas on the grounds that such formations can be more readily assimilated to land than water. The weakness of this argument arises from the relative lack of permanence of ice formations which makes it very doubtful that they can be permanently appropriate and subjected to sovereignty. Furthermore, such an argument would likely be contested on the ground that it would be an infringement of the principle of freedom of the high seas. On the other hand, shelf ice, because it is both immobile and permanently attached to land, might be

more easily assimilated to land territory than floes or ice islands lying beyond international or territorial waters.

11. Another factor which should be borne in mind in determining the Canadian attitude to sovereignty over the waters and ice of the Polar Basin is that the doctrine of sovereignty under international law applies not merely to the surface of the sea but to areas below the surface and the airspace above it. In an era when international commercial transportation by air over the Pole or by submarines navigating under Arctic ice has become a reality, it may be assumed that many countries have real interests in any claim by Canada, the Soviet Union or other states to sovereignty over polar waters and ice. Accordingly it must be expected that their reaction to such claims would be determined largely by the importance of these interests and be influenced as well as by the general defence or military implications which such claims would have for these countries.

...

CONCLUSIONS AND RECOMMENTATIONS

...

III – WATERS AND ICE OF THE POLAR BASIN

There would not appear to be any overriding reason to revise the view reached in an interdepartmental study of this matter in 1960 when it was concluded that a claim to the Polar Basin would entail few advantages of consequence, while on the other hand involving the likelihood of strong objections by other countries and real disadvantages as precedent for a Soviet claim to the large “sector” lying north of the USSR mainland. Notwithstanding this conclusion, concepts of international law frequently change and future developments could lead to the recognition of certain types of ice as being capable of appropriation.

Consequently, it is recommended that the sector theory should not be repudiated as such (in absence of any pressing need to do so) but be held in reserve for possible use if and when it became advisable to lay claim to sovereignty over any fixed or floating ice in the high seas of the “Canadian sector.”

...

[André Bissonette]

22. Telegram regarding the Escamilla Case, from Canadian Embassy, Washington to External Affairs, 6 May 1971

LAC, RG 25, vol. 15732, file 25-5-5-CDA-5

UNCLASSIFIED
FM WSHDC 1383 MAY6/71
TO OTT EXT FLP
INFO JUSTICEOTT /CHRISTIE PMOOTT /HEAD
DISTR PDM GWU FPR FLO
REF YOURTEL FLP55 MAY4

ALLEGED HOMICIDE ON T3 ICE FORMATION

AFTER NEARLY FULL DAY OF HEARING USA FEDERAL DISTRICT JUDGE OREN LEWIS MADE TENTATIVE RULING THAT HE HAD JURISDICTION TO HEAR ESCAMILLA CASE AND TRIAL IS NOW PROCEEDING. PROSECUTION CALLED SEVERAL EXPERT WITNESSES AND THEN PROSECUTION AND DEFENSE ARGUED FOR TWO HOURS ON QUESTION OF USA JURISDICTION OVER CRIMINAL CASE COMITTED ON T3. JUDGE FINALLY HELD THAT CASE WAS VERY CLOSE AND THAT HE REALLY DID NOT /NOT KNOW WHETHER USA COURTS HAD JURISDICTION. HE FEELS THAT CASE WILL ULTIMATELY HAVE TO BE DECIDED IN APPEAL HOWEVER, IN ORDER TO AVOID DELAYS THAT MAY CAUSE PREJUDICE TO DEFENDANT HE DECIDED TO FIND THAT HE HAD JURISDICTION IN ORDER TO PROCEED WITH TRIAL. HE EXPECTS THAT CASE WILL BE APPEALED IN ANY EVENT AND IT WAS OBVIOUS THAT GOVT WOULD HAVE APPEALED ANY FINDINGS THAT USA DID NOT/HAVE JURISDICTION. THEREFORE IN ORDER TO AVOID SITUATION WHERE YEAR OR TWO WOULD PASS BEFORE JURISDICTIONAL QUESTION WAS ULTIMATELY SETTLED AND CASE TRIED LEWIS FOUND IN HIS FAVOUR PRIMARILY,IT WOULD APPEAR, IN ORDER TO HEAR CASE AND DISPOSE OF IT ON MERITS WITHOUT DELAY.

2. WILLIAM JOHNSON, DIRECTOR OFFICE OF CDN AFFAIRS, STATE DEPT, WAS CALLED AS WITNESS FOR PROSECUTION AND TABLED

NOTE CONTAINED IN REFTEL AND EARLIER TWO NOTES. DEFENSE TRIED TO SHOW THAT "QUESTION OF CDN WAIVER OF JURISDICTION COULD IN NO/NO WAY GIVE JURISDICTION TO USA. WITH THIS JUDGE AGREED BUT HE DID NOT /NOT CONSIDER STATEMENT OF CDN POSITION TO HAVE MUCH RELEVANCE SINCE EVEN IF CDA WERE TO CLAIM JURISDICTION FOR REASONS SUCH AS ICE FLOW BEING IN CDN TERRITORIAL WATERS, HE AS USA JUDGE WOULD NOT/NOT BE BOUND BY SUCH A CLAIM UNLESS IT WAS RECOGNIZED INNATLTY PARTICULARLY BY USA. WHEN DEFENSE PERSISTED IN TRYING TO GET BEHIND MEANING OF CDN NOTE OF MAY 4 JUDGE LEWIS SAID THAT IF YOU REALLY GOT BEHIND BIG FANCY WORDS USED IN NOTE ALL IT REALLY MEANT WAS THAT CDA WAS SAYING IT RESERVED RIGHT AT SOME TIME IN FUTURE IF IT EVER THOUGHT WORTH ITS WHILE TO CLAIM AS MUCH JURISDICTION AS IT COULD GET AWAY WITH. THIS CAUSED GREAT DEAL OF LAUGHTERIN COURT ROOM, PARTICULARLY FROM STATE DEPT REPS. JUDGE ALSO SAID THAT JURISDICTIONAL QUESTION WAS UNIMPORTANT BECAUSE HE WAS CERTAIN THAT WHATEVER HIS FINDINGS WERE STATE DEPT WOULD PAY NO/NO ATTN TO IT AND HE VERY MUCH DOUBTED THAT CDA WOULD. HE MADE IT QUITE CLEAR THAT HE REGARDED AREA IN QUESTION AS HIGH SEAS. JOHNSON DENIED KNOWLEDGE OF ANY OFFICIAL CDN CLAIM TO AREA. PROSECUTION ALSO CALLED STATE DEPT GEOGRAPHER WHO TESTIFIED THAT TO HIS KNOWLEDGE THERE WAS NO/NO CDN CLAIM TO THIS AREA. DEFENSE INTRODUCED MAP NO 10 OF DEPT OF EMAR WHICH HAD UNEXPLAINED BROKEN LINES LEADING FROM EAST AND WEST COAST TO CDA TO NORTH POLE. JUDGE DISMISSED THIS EFFORT BY SAYING THAT EVEN IF LINES REPRESENTED TERRITORIAL CLAIM, EMAR MAP CERTAINLY COULD NOT/NOT SPEAK FOR GOVT OF CDA.

3. ISSUE EVENTUALLY BOILED DOWN TO QUEST ION OF WHETHER USA STATUTES GAVE TO USA COURT JURISDICTION OVER MATTERS ARISING IN HIGH SEAS <NO/NO EFFORT HAD BEEN MADE IN OUR VIEW TO CLAIM T3 WAS ANALOGOUS TO A SHIP. IT WAS AT THIS POINT THAT JUDGE HAD REAL DIFFICULTY IN INTERPRETING STATUTE, SINCE USA CRIMINAL JURISDICTION DOES NOT /NOT EXTEND TO COVER USA NATLS WHEREVER THEY MAY BE. T3 WAS PROBABLY NOT/NOT USA TERRITORY AND JUDGE FOUND DIFFICULTY DECIDING WHETHER IT WAS IN FACT ENGAGED IN

COMMERCE WITHIN MEANING OF USA LAW SO AS TO BRING IT WITHIN USA ADMIRALTY JURISDICTION. BOTH JUDGE AND PROSECUTION NOTED CONCERN OVER FACT THAT IT ... WAS FOUND THERE WAS NO/NO USA JURISDICTION OVER T3 THEN THERE WOULD BE A VACCUME OF JURISDICTION AND NO/NO PROSECUTION FOR CRIMES COMMITTED THERE WOULD BE ALLOWABLE. ON THIS BASIS JUDGE FOUND HE HAD JURISDICTION BUT AS STATED ABOVE MADE IT QUITE CLEAR HE WOULD NOT/NOT BE SATISFIED UNTIL APPEAL COURT HAD REVIEWED HIS DECISION.

4. WE HAVE SO FAR SEEN ONLY ONE NEWSPAPER REPORT ON TRIAL, THAT IN WSHDC POST OF MAY 6 WHICH INACCURATELY REPORTS CONTENTS OF CDN NOTE. TEXT OF ARTICLE BY BAG. WE HAVE ALSO RECEIVED ONE INQUIRY FROM ROD CURRIE OF CDN PRESS, BUT NO/NO CDN JOURNALISTS WERE PRESENT AT TRIAL.

23. Memorandum from E.G. Lee, “Alleged Homicide on T-3 Ice Formation: Escamilla,” June 23, 1971.

LAC, RG 25, vol. 31, file 25-5-5-CDA-5

MEMORANDUM

CONFIDENTIAL

MIN

June 23, 1971

FLO

Your Action Request Slip of May 31, 1971

Alleged homicide on T-3 Ice Formation: Escamilla

With your action request slip of May 31 you forwarded to us a memorandum from Miss MacDonald in the Prime Minister's Office requesting advice on the reply to be given to a constituent of the Prime Minister, Mr. David Rafal, concerning the homicide allegedly committed by Mario Escamilla on the T-3 ice formation. We would recommend that the reply to Mr. Rafal should be along the following lines:

“As you know, the Government has expressly reserved Canada's position on the question of jurisdiction over the offence with which Mr. Escamilla was charged in the United States, and has not abandoned nor prejudiced any Canadian claims of any kind with respect to the Arctic waters and ice. The Government informed the United States authorities that it would not object to having the drifting ice formation T-3 considered as a ship for the purposes of the legal proceedings against Mr. Escamilla, thus giving the USA jurisdiction as a “flag state” without touching on the question of concurrent Canadian jurisdiction, in order to facilitate the course of justice; at the same time, the Government also informed the United States authorities that it waived Canadian jurisdiction if this was considered necessary for the purposes of the legal proceedings in question. You may recall that in a recent case involving a homicide aboard a Danish vessel in Hamilton Harbour the Government made a similar waiver of jurisdiction with respect to the Danish authorities.

“The position taken by the Government was considered to be the most appropriate in the unique circumstances surrounding the alleged homicide and taking into account the fact that all the individuals involved were American citizens. Canada's position in

this case applies, however, only for the purpose of the particular legal proceedings concerned and is not necessarily applicable to the question of the status of drifting ice formations in general.

“I must say that, according to the reports I have received, I do not understand the trial judge in this case to have suggested that Canada should appeal his decision before the International Court of Justice. In any event, the Government does not intend to adopt such a course or to make further representations to the Government of the USA in this matter.

E.G. Lee
Legal Operations Division

24. Soviet Ice Island in the Canadian Arctic, August 23, 1977

Telegram from NATO to Secretary of State, Source: Wikileaks

1. AT AUGUST 23 POLADS MEETING, CANADIAN REP CIRCULATED THE FOLLOWING PAPER REGARDING SOVIET PRESENCE ON AN ICE ISLAND IN THE CANADIAN ARCTIC AND A CANADIAN REQUEST THAT THE SOVIETS PROVIDE INFORMATION REGARDING THEIR ACTIVITIES AND PRESENCE ON THE ISLAND.

2. BEGIN TEXT:

THE SOVIET ICE ISLAND DESIGNATED NP-22, WHICH HAS FOR SOME MONTHS BEEN UNDER OBSERVATION BY CANADIAN FORCES AIRCRAFT, AND WHICH HAS BEEN THE SUBJECT OF A NUMBER OF NEWSPAPER ARTICLES, HAS NOW DRIFTED INTO THE CANADIAN 200-MILE FISHING ZONE IN THE WESTERN ARCTIC (APPROXIMATELY 160 MILES FROM THE NEAREST CANADIAN LAND) AND MAY CONTINUE TO DRIFT CLOSER TO CANADIAN ARCTIC ISLANDS.

THE MINISTER-COUNSELLOR OF THE SOVIET EMBASSY IN OTTAWA WAS ASKED TO MEET WITH THE DIRECTOR-GENERAL OF LEGAL AFFAIRS OF THE DEPARTMENT OF EXTERNAL AFFAIRS AND WAS HANDED AN INFORMAL PAPER ASKING THE SOVIET EMBASSY TO ADVISE THE DEPARTMENT OF THE NATURE OF THE ACTIVITIES ON THE ICE ISLAND, AND OF SOVIET INTENTIONS WITH RESPECT TO THEIR CONTINUED PRESENCE ON THE ISLAND.

IN RESPONDING TO THE PAPER, THE MINISTER-COUNSELLOR STRESSED THAT THE ICE ISLAND WAS NOT ENGAGING IN FISHING ACTIVITY OR CONTINENTAL SHELF DRILLING AND THAT CONSEQUENTLY THERE WAS NO BASIS FOR AN ASSERTION OF JURISDICTION BY CANADA. THE DIRECTOR-GENERAL STRESSED THAT THE GOVERNMENT WAS NOT ATTEMPTING TO ASSERT JURISDICTION OVER ICE ISLAND BUT SIMPLY NOTING THAT ISLAND WAS WITHIN THE AREA OF APPLICATION OF CANADIAN FISHERIES LAW, AND THAT GIVEN PRESS INTEREST IN THIS MATTER, IT WOULD BE USEFUL TO HAVE CLARIFICATION FROM THE EMBASSY IN

ACCORDANCE WITH THE REQUEST CONTAINED IN THE PAPER. THE MINISTER-COUNSELLOR SAID THAT SOVIET OFFICIALS WOULD STUDY THE PAPER AND REPLY IN DUE COURSE.

THE FOLLOWING IS THE TEXT OF THE INFORMAL PIECE OF PAPER:

"IN MARCH 1976, THE USSR ICE STATION NP-22 DRIFTED INTO THE CANADIAN ARCTIC AREA AND SINCE THEN ITS PROGRESS HAS BEEN MONITORED BY CANADA. AS IS KNOWN, A CBC TELEVISION CREW VISITED THE ISLAND IN MARCH 1977.

A QUESTION WAS RAISED IN THE HOUSE OF COMMONS ON APRIL 4, 1977, AS A RESULT OF THE CBC PROGRAMME, AND AT THAT TIME THE SECRETARY OF STATE FOR EXTERNAL AFFAIRS RESPONDED THAT THE ICE ISLAND DID NOT CONSTITUTE A THREAT TO CANADIAN INTERESTS IN THE ARCTIC.

"THE CANADIAN AUTHORITIES HAVE NOTED THAT NP-22 HAS CONTINUED TO DRIFT IN A SOUTHEASTERLY DIRECTION AND IS NOW ROUGHLY 160 NAUTICAL MILES NORTH OF PRINCE PATRICK ISLAND (79°18' NORTH, - 127°48' WEST). "THUS THE POSITION OF NP-22 IS NOW WELL WITHIN THE 200-MILE ZONE WITHIN WHICH CANADA EXERCISES JURISDICTION AND WITHIN WHICH SPECIFIC CANADIAN LEGISLATION APPLIES.

THE GOVERNMENT OF CANADA WISHES THE USSR TO TAKE NOTE OF THIS FACT. IN GENERAL TERMS, CANADIAN LAWS APPLY WITH RESPECT TO FISHERIES AND ENVIRONMENTAL PROTECTION.

"WITH REGARD TO RESEARCH CONCERNING THE CONTINENTAL SHELF, THE GOVERNMENT WOULD WISH THE USSR TO TAKE NOTE OF THE FACT THAT UNDER THE 1958 CONVENTION ON THE CONTINENTAL SHELF (TO WHICH CANADA AND THE USSR ARE PARTIES), THE CONSENT OF THE COASTAL STATE SHALL BE OBTAINED IN RESPECT OF ANY RESEARCH CONCERNING THE CONTINENTAL SHELF AND UNDERTAKEN THERE. "THE DEPARTMENT OF EXTERNAL AFFAIRS REQUESTS THE EMBASSY OF THE USSR TO ADVISE IT OF THE NATURE OF SOVIET ACTIVITIES ON THE ISLAND AND OF USSR INTENTIONS WITH RESPECT TO CONTINUED SOVIET PRESENCE ON THE ISLAND.

25. Soviet Ice Island in the Canadian Arctic, September 6, 1977

Telegram from NATO to Secretary of State, Source: Wikileaks

1. AT THE SEPT 6 POLADS MEETING, THE CANADIAN REP CIRCULATED THE FOLLOWING PAPER CONTAINING A RESPONSE PROVIDED BY THE SOVIET EMBASSY IN OTTAWA TO THE CANADIANS ON SOVIET ACTIVITIES ON THE ICE ISLAND, AND A CANADIAN ASSESSMENT OF THE SOVIET RESPONSE.

2. BEGIN TEXT: TEXT OF SOVIET NOTE OF AUGUST 30, 1977

"THE SOVIET SCIENTIFIC STATION "NORTH POLE-22" (NP-22) STARTED ITS WORK ON SEPTEMBER 13, 1972 IN A POINT WITH THE COORDINATES OF 76 DEGREES 16 MINUTES NORTHERN LATITUDE AND 168 DEGREES 31 MINUTES WESTERN LONGITUDE. IN ACCORDANCE WITH THE PROGRAMME FOR THE DURATION OF ALL THE PERIOD OF THE DRIFT THE FOLLOWING OBSERVATIONS SHOULD BE CARRIED OUT AT THE STATION: METEOROLOGICAL, AEROLOGICAL, ACTINOMETRIC, OCEANOLOGICAL, REOMETRICASTRONOMICAL AND MAGNITILOGICAL. THUS, THE PROGRAMME INCLUDES THE COMPLEX OF HYDROMETEOROLOGICAL AND OCEANOGRAPHIC RESEARCH, ACCEPTED AT THE SOVIET DRIFT STATIONS AND AIMED AT FURTHER STUDY OF THE HYDRO-METEOROLOGICAL REGIME OF THE ARCTIC, AND DOES NOT INCLUDE TYPES OF ACTIVITIES REGULATED BY THE CANADIAN LEGISLATION.

AT THE BEGINNING OF THE DRIFT THE NP-22 WAS ADVANCING INTO THE NORTH POLE AREA BUT LATER IT WAS DRAWN INTO ANTI-CYCLONAL DRIFT AND IN THE SECOND HALF OF 1976 IT STARTED TO APPROACH THE SHORES OF CANADA. SUCH A PROTRACTED PERIOD OF THE DRIFT AND ITS TRAJECTORY ARE UNIQUE AND THEREFORE THE RESULTS OF THIS DRAFT HAVE A PARTICULAR SCIENTIFIC VALUE. AT THE SAME TIME ONE WOULD WISH TO STRESS THAT THE AEROMETEOROLOGICAL INFORMATION RECEIVED FROM THE STATION GOES INTO THE INTERNATIONAL EXCHANGE SYSTEM AND IS RECEIVED BY CANADA.

IN MARCH 1977 THE STATION WAS VISITED BY THE CBC FILM CREW WHICH GOT ACQUAINTED WITH THE CHARACTER OF THE SCIENTIFIC RESEARCH, CARRIED OUT BY THE SOVIET SCIENTISTS. AFTER THIS VISIT A FILM ON THE WORK OF THE STATION WAS SHOWN ON THE CANADIAN TELEVISION. AT THE SAME TIME ONE WOULD LIKE TO NOTE THAT DUE TO THE SPONTANEITY OF THE DRIFT OF POLAR STATIONS THE NP-22 ACCIDENTLY APPROACHED THE 200 MILE ZONE. MOREOVER, SHORTLY THE STATION WOULD APPARENTLY LEAVE THE LIMITS OF THE ABOVE- MENTIONED ZONE AS THE CIRCULATING CURRENTS IN THIS ARCTIC AREA WILL CONTRIBUTE TO THE SHIFT OF THE ICE MASSIF IN THE DIRECTION FROM THE CANADIAN SHORES. IN THIS CONNECTION WE WOULD LIKE TO HOPE THAT THE GOVERNMENT OF CANADA WILL REGARD WITH UNDERSTANDING THE SITUATION THAT AROSE IN CONNECTION WITH THE DRIFT OF THE SOVIET RESEARCH STATION NP-22."

CANADIAN ASSESSMENT OF NOTE

THE CANADIAN ASSESSMENT OF THE RESPONSE IS THAT IT IS AS FORTHCOMING AS COULD HAVE BEEN EXPECTED AND CARRIES IMPLICIT RECOGNITION OF CANADIAN JURISDICTION IN THE ARCTIC 200 MILE ZONE AND POTENTIAL APPLICATION OF CANADIAN LAWS TO THE ICE ISLAND.

THE REPLY ALSO CONSTITUTES THE FIRST FORMAL SOVIET DESCRIPTION IN WRITING OF THEIR ACTIVITIES ON THE ISLAND. ON THE BASIS OF THE FAIRLY SUBMISSIVE RESPONSE, AND UNLESS THERE ARE FURTHER DEVELOPMENTS, I.E., CONTINUED PRESENCE IN THE 200 MILE ZONE OR FURTHER DRIFT TOWARD CANADIAN LAND AND PUBLIC/MEDIA PRESSURE, WE PROPOSE TO LEAVE THE MATTER IN ABEYANCE FOR THE TIME BEING, WHILE CONTINUING TO MONITOR THE PROGRESS AND NATURE OF ACTIVITIES OF NP-22.

THE VIEW OF THE CANADIAN MILITARY AUTHORITIES IS THAT THE ICE ISLAND DOES NOT AT PRESENT REPRESENT A MILITARY CONCERN FOR CANADA.

END TEXT. BENNETT

About the Editor



Historian Adam Lajeunesse, Ph.D. is a SSHRC postdoctoral fellow at St. Jerome's University. He is currently working on a research program examining the history of Canadian military operations in the Arctic and the history of northern development, with a focus on hydrocarbon exploration from the 1960s to the mid-1980s. His doctoral dissertation research formed the basis for his book *Lock, Stock, and Icebergs: A History of Canada's Arctic Maritime Sovereignty* (UBC Press, 2016), while his articles on Arctic sovereignty and security have appeared in *Cold War History*, *International Journal*, *Canadian Military Journal*, and through the Centre for Military and Strategic Studies Occasional Paper series. He has also published on contemporary topics such as Arctic shipping, the economics of northern hydrocarbon development, and Canadian defence activities in a whole of government framework.

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P. Whitney Lackenbauer and K.C. Eyre

DCASS Number 3, 2015

The Advisory Committee on Northern Development: Context and Meeting Minutes, 1948-66

P. Whitney Lackenbauer and Daniel Heidt

DCASS Number 4, 2015

Ice Islands in Canadian Policy

Adam Lajeunesse

DCASS Number 5, 2015



Unfurling the Flag on ice island ARLIS II. Courtesy of The Arctic Institute of North America