REPLY OF THE UNITED STATES OF AMERICA

RÉPLIQUE DES ÉTATS-UNIS D'AMÉRIQUE

REPLY SUBMITTED BY THE UNITED STATES OF AMERICA

INTRODUCTION

1. This Reply is filed in accordance with the 27 July 1983 Order issued by the President of the Chamber formed to deal with the Case Concerning Delimitation of the Maritime Boundary in the Gulf of Maine Area fixing 12 December 1983 as the time limit for the filing of Replies by the United States of America and by Canada (the "Parties").

2. In accordance with Article 49 of the Rules of Court, the purpose of this Reply is not merely to reiterate the Parties' contentions, but to bring out the major issues dividing them [1].

3. This Reply is divided into the following parts:

Part I is an overview of this case.

Part II addresses the history of this dispute. It demonstrates that Canada consistently has adopted unreasonable and inequitable positions on matters relating to this case.

Part III addresses the fundamental legal difference between the positions of the Parties: Canada asks the Court to rule on the basis of previously rejected legal arguments and radically to alter established law, whereas the United States asks the Court to rule on the basis of established law, reinforced by recent trends.

Part IV addresses the difference between the Parties concerning the relevant circumstances in the Gulf of Maine area and the application of the equidistance and perpendicular methods in those circumstances.

Part V provides a summary of the United States case.

The final part of the Reply sets forth the United States Submissions to the Chamber. In addition, there is a two-volume Annex containing documentary and supplemental analytical material.

[1] This Reply is not intended to address every element of the differences between the Parties. The fact that an issue is not addressed herein does not indicate concurrence by the United States in Canada's position with respect thereto. The United States reserves its right to address any such issue in the oral proceedings.

PART I. OVERVIEW

4. The Memorials and Counter-Memorials of the Parties have brought out the central issues before the Court in this case. Canada appears to agree with the United States that there is a continuum of law pertaining to the delimitation of all maritime boundaries between neighboring States, as expressed in the Fundamental Rule that maritime boundaries are to be delimited in accordance with equitable principles, taking account of the relevant circumstances, so as to achieve an equitable result. In fact, however, Canada asks this Court to create radically new and different law based upon notions that the Court and other tribunals previously have rejected.

5. Canada's objective is to obtain what it regards as "an equitable division of the resources of the relevant area [1]". The United States believes that the proper function of the Court is to delimit the maritime zones appertaining to the Parties in accordance with law, and not to apportion the resources of the area on the basis of an equitable sharing.

6. Canada asks the Court to disregard the United States coastline facing Georges Bank at Maine and New Hampshire, and to attribute to Canada *a large part of the continental shelf and fisheries zone that lie* solely in front of the United States coast. Unfortunately for Canada, there is no rule or principle of law that authorizes the Court to attribute to one State a maritime area that lies solely in front of the coast of another State.

7. As a result, Canada, in its efforts to prevail, is forced to rely upon two notions that the International Court of Justice has rejected as principles for delimitation between neighboring States: the discarded notions of (1) proximity and (2) economic dependence and relative wealth. Canada therefore is asking the Court to reconsider, and indeed to overturn, the principles established in the *North Sea Continental Shelf* [2] and *Tunisia/Libya* cases [3].

8. In support of this startling stance, Canada contends that the Third United Nations Conference on the Law of the Sea displaced the established law of maritime delimitation. Canada argues that a new law has emerged in which proximity is the basic rule. Distance, in Canada's

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[1] Canadian Counter-Memorial, para. 497.

[2] *North Sea Continental Shelf, Judgment, I.C.J. Reports 1969*, p. 3.

[3] *Continental Shelf (Tunisia/Libyan Arab Jamahiriya), Judgment, I.C.J. Reports 1982*, p. 18.

view, has now become "the principal expression of adjacency and appurtenance [1]". Equally startling is Canada's reliance upon the rejected notions of economic dependence and relative wealth, notwithstanding the fact that, under established law as reinforced by recent trends, a coastal *State is entitled to a 200-nautical-mile resource zone regardless of* whether that State uses the resources of the zone.

9. Canada presumably would not have embraced these previously rejected approaches if there were a credible alternative. Canada is forced to such extremes because the boundary that it proposes can be justified *only upon the basis of an application of the equidistance method*. The United States has shown that Canada's application of that method is inequitable in this case. Thus, Canada asks the Court to delimit a vast maritime area upon the basis of two isolated, protruding coastal points, rather than upon the basis of the coasts themselves and the areas in front of those coasts. As Canada appears to recognize, the Court cannot justify a boundary that cuts off the United States from significant areas in front of its coast without departing radically from established law.

10. In the view of the United States, the principal issue before the Court is whether well-established rules and principles applicable to the delimitation of the continental shelf and exclusive fishing zones also are applicable to the delimitation of this single maritime boundary, or whether a new law must be fashioned by the Court upon the basis of previously rejected theories.

11. It is the view of the United States that the Third United Nations Conference on the Law of the Sea clearly and unequivocally confirmed for purposes of delimitation the same rules and principles that were established previously in international law. The United States further believes that there is no basis whatsoever for concluding that the Conference afforded the equidistance method of delimitation a greater role than does Article 6 of the 1958 Convention on the Continental Shelf. Canada is asking the Court to disregard these basic truths in favor of discarded notions in order to gain in perpetuity the right to drill for oil and gas and to fish in areas that otherwise appertain to the United States under the established principles of maritime boundary delimitation. Canada in effect is beseeching the Court to accord greater weight to Canada's recent fishing activity, largely limited to scallops, than to the basic equitable *principle that a delimitation must respect the relationship between the* relevant coasts of the Parties and the maritime areas lying in front of those coasts. Canada's position utterly disregards not only that basic

[1] Canadian Counter-Memorial, para. 468.

equitable principle, but also the principles of resource conservation and management and of dispute minimization. All of these principles will best be served by a boundary that respects the Northeast Channel, an important geomorphological feature that marks a division in the marine environment of the Gulf of Maine area [1], including a division of most of the commercially important fish stocks.

12. With respect to the equitable principle that relevant circumstances must be taken into account, the United States Memorial and Counter-Memorial have shown that all of the relevant circumstances of this case support a delimitation that respects the extension of the United States coastal front at Maine and New Hampshire through the Gulf of Maine and seaward across Georges Bank and beyond. The Canadian Memorial and Counter-Memorial disregard the coasts of Maine and New Hampshire; ignore the significance of the Northeast Channel as an important geomorphological feature, one that marks the only natural boundary in the Gulf of Maine area; dismiss longstanding United States fishing interests on Georges Bank; make other assertions unsupported by the evidence; misapply the proportionality test; and engage in colorful but irrelevant rhetoric.

13. The United States regrets the tone of the Canadian Counter-Memorial and its many unfair characterizations of United States actions and positions, and will not reply in kind. The United States must respond, however, to the Canadian charge that the United States boundary position is "expansionist" and "monopolistic". It was Canada, and not the United States, that pursued a policy of aggressively seeking to expand coastal-State maritime jurisdiction in the 1960s and 1970s. Moreover, it was Canada, and not the United States, that chose to expand its claim in the Gulf of Maine area in the midst of negotiations. Further, contrary to Canada's assertions, the United States never has accepted an equidistant line for any jurisdictional purpose in the Gulf of Maine area. The United States consistently has treated Georges Bank as within its jurisdiction to the full extent permissible under international law.

14. With respect to the charge of monopoly, the United States need only note that, whereas Canada vigorously has pursued its exclusive

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[1] In this Reply, as in the United States Memorial [para. 25, n. 2] and Counter-Memorial [para. 16, n. 2], "Gulf of Maine" refers to the seabed and body of water landward of a hypothetical line between Nantucket Island and Cape Sable. It does not include the Bay of Fundy. "Gulf of Maine Basin" refers to the Gulf of Maine, except for that part of the Scotian Shelf and superjacent waters that are in the Gulf of Maine. "Gulf of Maine area" refers to the broader area described in the United States Memorial and Counter-Memorial, i.e., "the coasts and geographical features from Nantucket Island, Massachusetts, to Cape Canso, Nova Scotia, and the maritime areas seaward from these coasts to the limit of coastal-State jurisdiction" [United States Counter-Memorial, para. 16.]

jurisdiction over the fisheries off its coast, it seeks to share not these fisheries, but only those fisheries off the coast of the United States. The Canadian position in this regard is predicated upon the erroneous assumption that it is the duty of the Court to divide the resources within the area claimed by both Parties. If an area lies within the exclusive jurisdiction of a State, jurisdiction over that area is a matter of legal right, and does not amount to an invidious monopolization or an improper denial of sharing.

15. The United States believes that the boundary claim of the United States in the Gulf of Maine area is fully consistent with the Fundamental Rule that maritime boundaries are to be delimited in accordance with equitable principles, taking account of the relevant circumstances in the area, so as to achieve an equitable result, whereas the Canadian line not only is inconsistent with that rule, but seeks radically to alter it.

PART II. THE HISTORY OF THE DISPUTE IN PROPER PERSPECTIVE: CANADA HAS ASSERTED UNREASONABLE AND INEQUITABLE CLAIMS

INTRODUCTION

16. The Canadian Counter-Memorial refers to the United States boundary position as extravagant [1], "monopolistic [2]", "eccentric [3]", "expansionist [4]", and the latest step in a pattern of "progressive encroachment [5]" by the United States upon Canada's purported interests. Canada ignores that the differences between the Parties in this case, and the difficulties encountered in attempting to resolve those differences, arise out of the expansive posture that Canada adopted and vigorously has pursued with respect to all of its claims to maritime jurisdiction. An examination of Canada's arguments reveals that it is Canada that has raised excessive claims in this case.

[1] Canadian Counter-Memorial, paras. 26 and 44.

[2] The Canadian Counter-Memorial is replete with references to "monopoly" or "monopolistic"; *see, e.g.*, paras. 17 and n. 1 thereto, 18, 27, 48, 87, 242, 245, 401, 497, 500, 515, 519, 523, and 526.

[3] Canadian Counter-Memorial, para. 44.

[4] Canadian Counter-Memorial, para. 227.

[5] Canadian Counter-Memorial, para. 21.

CHAPTER I

MANY OF THE DISAGREEMENTS BETWEEN THE PARTIES IN THIS CASE ARISE OUT OF, AND REFLECT, THEIR DIFFERENT ATTITUDES CONCERNING THE LAW OF THE SEA

17. The United States and Canada have maintained different approaches to the law of the sea that date at least to the First United Nations Conference on the Law of the Sea in 1958. At that time, Canada became a principal proponent of a broad definition of the continental shelf, supporting an expansion beyond the traditional outer limit of the 200-meter (100-fathom)-depth contour. Canada was a leading advocate of extensive fisheries jurisdiction for coastal States. Canada also campaigned for straight baselines, for a broad territorial sea, and for extensive pollution-control jurisdiction. The United States sought to limit the seaward extension of coastal-State jurisdiction and to preserve the traditional freedoms of the high seas. These abiding differences were carried forward in the Third United Nations Conference on the Law of the Sea, and, eventually, in the negotiations that resulted in the failed 1979 east coast fisheries agreement.

SECTION 1. The Differences Between the Parties Concerning the Law of the Sea First Surfaced at the 1958 Law of the Sea Conference and Have Plagued an Otherwise Generally Harmonious Bilateral Relationship

18. In the years following World War II, the United States and Canada generally have pursued divergent interests regarding the law of the sea. Canada was one of the first States to propose the concept of a fishing zone beyond the territorial sea [1]. Canada sought to further this interest at the 1958 Geneva Conference, where it introduced proposals designed to terminate the traditional foreign fisheries off its coasts [2]. At the Conference, Canada also attacked the traditional use of the 100-fathom-depth contour as the definition of the continental shelf, and provoked the debate that ultimately resulted in the addition of the

[1] Canada's comments upon the International Law Commission's Report on the Law of the Sea proposed a 12-nautical-mile contiguous zone, "... but with the modification that, within that zone, the coastal State should have the exclusive right of regulation and control of fishing. Rights over fisheries accorded by such a zone should, in the view of the Canadian Government, be as complete as those that are afforded to a coastal state within the limits of territorial waters ". U.N. Doc. A/CONF. 13/5.

[2] *See, e.g.*, U. N. Doc. A/CONF. 13/C. 1/ L. 77/ and Revs. 1-3.

"exploitability test" to the definition of the continental shelf in international law [1].

19. The conclusion of the 1958 and 1960 Conferences marked a turning point in Canada's policy toward the law of the sea. Canada thereafter reinforced and proceeded even further in its expansive policy. The then Legal Adviser of Canada's Department of External Affairs wrote in 1973:

> "During the early 50's, Canada had already been among the first *to launch the idea of a flexible approach to the definition of a* coastal State's sovereign rights over the resources of the continental shelf . . . [2].
>
> "Because Canada believed that a twelve-mile exclusive fishing zone would be in its own national interests . . . it took the initiative in 1956 to define the concept and waged a remarkable worldwide campaign to get it accepted from 1958 to the early 60's. *Failing to obtain an international legal endorsement for such an extension, Canada went ahead on a unilateral basis* [3]."
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> ". . . the most decisive act in the whole Canadian story over the past two decades was the *placing in 1970 of new reservations on Canada's acceptance of the compulsory jurisdiction of the International Court so as to exclude jurisdiction over 'disputes arising out of or concerning jurisdiction or rights claimed or exercised by Canada in respect of the conservation, management or exploitation of the living resources of the sea,* or in respect of the prevention or control of

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[1] The Summary Records of the Conference record that the Canadian representative, speaking of the 100-fathom, or 200-meter-depth contour, definition, stated: "[c]*onvenient though that approach was, it failed to take into account certain* natural geographical features which might occur beyond that depth." [Summary Records, 12th Mtg., 19 Mar. 1958, para. 32, U. N. Doc. A/CONF. 13/C. 4/SR. 12. He proposed an alternate formula in two parts:

> "First, where the continental shelf was geographically well-defined, the boundary should be set at its actual edge. Second, where the shelf was ill-defined, or where there was no shelf in a geographical sense, the boundary might be set at some precise depth which would be sufficient to meet foreseeable practical requirements of exploitation."

Ibid., para. 35.

[2] A. Gotlieb and C. Dalfen, "National Jurisdiction and International Responsibility: New Canadian Approaches to International Law", in 67 *American Journal of International Law*, 1973, pp. 229, 233. Annex 1.

[3] *Ibid.*, p. 234. [Emphasis added.]

pollution or contamination of the marine environment *in marine areas adjacent to the coast of Canada'. This action made it possible for the Canadian Government to avoid the necessity of seeking compromise resolutions or agreements. It was now free to act in the absence of agreement. . .*[1]".

. . . .

"*It is the unilateral measures . . . that more directly represent the recent Canadian reorientation,* in that they reflect both a heightened concern with territorial integrity and, even more significantly, *a new willingness to take measures* to protect that integrity, *even at the risk*—dramatically increased by the International Court of Justice reservation—*of appearing to disregard international legal precedents and procedures*[2]."

These words illuminate the historical record portrayed by Canada in its Memorial and Counter-Memorial. Canada fails therein to point out that, by the 1960s, it had embarked upon a carefully considered course to expand its maritime jurisdiction through a program of diplomatic and, where necessary, unilateral actions.

20. In retrospect, it is clear that the exploration permits pertaining to Georges Bank issued by Canada beginning in 1964 were but one element of this broader onslaught. There is a crucial distinction, however, between the issuance of the oil and gas permits and the other actions bearing on the law of the sea that were undertaken by the Canadian government in the 1960s. In the former case, there was neither notification to, nor consultation with, the United States government. In all other cases, action was taken only after extensive discussion within diplomatic channels.

21. Thus, only after consultations at the level of the President and Prime Minister[3] did Canada enact the 1964 Territorial Sea and Fishing Zones Act[4], which provided for straight baselines and for the establishment of a nine-nautical-mile fishing zone beyond the territorial sea. The subsequent Orders in Council of 1967 and 1969 that promulgated specific

[1] Gotlieb and Dalfen, *op. cit.*, p. 235. [Emphasis added.]

[2] *Ibid.*, p. 245. [Emphasis added.]

[3] President Kennedy and Prime Minister Pearson met on 10-11 May 1963 in Hyannis Port, Massachusetts. Among other issues, they discussed differences between the United States and Canada relating to the law of the sea. The President reserved the United States position with respect to Canada's proposed extension of fisheries jurisdiction to 12 nautical miles. For the text of the joint communiqué issued at the close of this meeting, *see* United States Department of State *Bulletin*, Vol. XLVIII, No. 1248, 27 May 1963, pp. 815-817. Annex 2.

[4] Territorial Sea and Fishing Zones Act (Statutes of Canada 1964-1965, Chap. 22). Canadian Memorial, Annexes, Vol. II, Annex 17.

straight baselines [1], the 1970 amendment to the 1964 Territorial Sea and Fishing Zones Act [2], and the Arctic Waters Pollution Prevention Act [3], all were enacted by Canada after extensive high-level diplomatic consultations [4].

22. The amended Territorial Sea and Fishing Zones Act extended Canada's territorial sea from three to 12 nautical miles. That 1970 amendment also authorized the establishment of new fishing zones in "areas of the sea adjacent to the coast of Canada [5]". This sweeping authorization initially was applied to proclaim "fisheries closing lines" for certain bodies of water, the effect of which was to create areas of exclusive Canadian fisheries jurisdiction that extended beyond its 12-nautical-mile territorial sea [6]. On the east coast, the areas that Canada unilaterally closed in 1970 were the entire Gulf of St. Lawrence and the Bay of Fundy [7]. Subsequently, the same authorization was invoked by the Canadian Government in 1977 to proclaim its 200-nautical-mile fisheries zone.

23. Under its Arctic Waters Pollution Prevention Act, Canada, also in 1970, claimed the right to control all forms of shipping within a zone extending 100 nautical miles offshore in the Arctic [8]. Canada promulgated this national legislation unilaterally, without regard to international precedents.

24. Apparently in anticipation of a possible legal challenge by the United States [9], Canada, again in 1970, substituted a new declaration of

[1] Canadian Memorial, Annexes, Vol. II, Annexes 20 and 21. The United States protested the establishment of these straight baselines. Note from the Dept. of State to Embassy of Canada, 1 Nov. 1967; and Note from the Dept. of State to Embassy of Canada, 25 Apr. 1969. Annex 4.

[2] An Act to Amend the Territorial Sea and Fishing Zones Act (Revised Statutes of Canada, 1970, 1st Supp., Chap. 45). Canadian Memorial, Annexes, Vol. II, Annex 23.

[3] An Act to prevent pollution of areas of the arctic waters adjacent to the mainland and islands of the Canadian arctic (Revised Statutes of Canada, *1970*, 1st Supp., Chap. 2). Annex 5.

[4] House of Commons Debates, 16 Apr. 1970 , p. 5953. Annex 3.

[5] Section 5.1 of the Act; para. 21, n. 2, *supra*.

[6] Fishing Zones of Canada (Zones 1, 2 and 3) Order, Order in Council P.C. 1971-366, 25 Feb. 1971, *The Canada Gazette*, Part II, Vol. 105, No. 5, 10 Mar. 1971. Canadian Memorial, Annexes, Vol. II, Annex 24.

[7] 1971 amendments to the Canadian Shipping Act extended Canada's jurisdiction over all vessels in the new fishing zones for purposes of the prevention and control of marine pollution.

[8] L.H.J. Legault, "Maritime Claims", in *Canadian Perspectives on International Law and Organizations*, 1974, pp. 377, 388. Annex 6.

[9] During the 1960s, senior United States Government officials made several proposals offering to submit differences between the United States and Canada regarding the law of the sea to the International Court of Justice.

acceptance of the compulsory jurisdiction of the International Court of Justice. This revised declaration generally excluded from the jurisdiction of the Court all matters relating to Canada's views on the law of the sea [1]. The United States promptly protested Canada's "assertions of claims to unilateral extension of jurisdiction or sovereignty on the high seas [2]" and, notwithstanding Canada's reservation, invited Canada to submit the issue to the Court. The United States note of 14 April 1970 stated:

> "The views of the United States and those of Canada differ with regard to the freedom of the high seas. As indicated earlier, the United States rejects Canada's assertions of unilateral jurisdiction, and will not recognize their validity. Accordingly, the United States Government now invites Canada to submit these differences regarding pollution and fisheries jurisdiction to the International Court of Justice, the forum where disputes of this nature should rightfully be settled. With regard to Canada's simultaneous reservation to the compulsory jurisdiction of the Court, the United States Government must state its disappointment over the Canadian Government's apparent lack of confidence in the international judicial process, and the United States Government calls upon that Government to join with the United States in submitting this dispute to the Court despite the reservation [2]."

25. Canada, however, refused to submit its actions to a legal test. In response to the United States Note of 14 April 1970, Canada stated:

> "The new reservation does not in any way reflect lack of confidence in the Court but takes into account the limitations within which the Court must operate and the deficiencies of the law which it must interpret and apply [3]".

The Canadian government sought to justify this development before its Parliament by noting that Canada was not prepared to litigate issues where the law was "inadequate, non-existent or irrelevant [4]".

SECTION 2. The Parties Maintained Different Attitudes Concerning the Purposes of the Third United Nations Conference on the Law of the Sea

26. The United States supported the convening of the Third United Nations Conference on the Law of the Sea in the hope that it would both

[1] The Declaration by Canada recognizing as compulsory the jurisdiction of the Court, dated 7 Apr. 1970, is *reprinted at* Annex 7.

[2] Note from the Dept. of State to Embassy of Canada, 14 Apr. 1970. Annex 8.

[3] Note No. 105 from Embassy of Canada to the Dept. of State, 16 Apr. 1970. The United States responded in Note from the Dept. of State to Embassy of Canada, 5 May 1970. Annex 8.

[4] House of Commons Debates, 16 Apr. 1970, p. 5952. Annex 3.

arrest the expanding claims of States to maritime jurisdiction and preserve traditional oceans law, particularly navigational rights and freedoms, in a changing world. The United States did not view the Conference as a vehicle for expanding its own coastal-State jurisdiction. Quite to the contrary, the United States hoped to forestall the expansion of coastal-State claims beyond the narrowest negotiable limits.

27. The aspirations of many States, including Canada, were different. They entered the Conference with the express purposes of limiting the regime of the freedom of the high seas and of legitimizing the expansion of their coastal-State jurisdiction. In 1974, together with a small group of other States, Canada introduced at the Conference a working paper that proposed a 12-nautical-mile territorial sea, a 200-nautical-mile economic zone, and sovereign rights and jurisdiction over the resources of the continental margin to its greatest breadth [1]. In introducing this document, the Canadian representative stated that "the existing law of the sea was incomplete, inadequate, and anachronistic", and that "there must be a radical restructuring of existing law [2]".

28. By 1975, a basic compromise had been negotiated at the Conference. The United States and other maritime States accepted the coastal-resource zone of 200 nautical miles desired by Canada and others, in return for recognition of the navigational rights and freedoms required by the United States and other maritime States: a 12-nautical-mile limit upon the territorial sea, free transit through international straits, and the maintenance of high-seas freedoms in the economic zone. The acceptance of this compromise at the Conference, in turn, led to the acceptance of its terms in the practice of States. Approximately 16 States unilaterally had declared some type of 200-nautical-mile resource zone by late 1975. Canada fully supported the growing development.

29. As additional States claimed 200-nautical-mile resource zones, many United States fishermen and the Congress questioned why the United States should not do likewise. The technological development and the increasing size of the distant-water fishing fleets were threatening the very existence of certain fishery resources and the economic survival of the United States fishing industry. The United States Departments of State and of Defense were of the view that the United States should await the negotiation of an acceptable and comprehensive law of the sea treaty that, *inter alia,* would guarantee navigational rights and provide for coastal-State resource jurisdiction. Nevertheless, the Congress responded in April of 1976, enacting the Fishery Conservation and Management

[1] Third United Nations Conference on the Law of the Sea, *Official Records,* Vol. II, pp. 81-83, U.N. Doc. A/CONF. 62/L.4.

[2] Comments of J.A. Beesley, Third United Nations Conference on the Law of the Sea, *Official Records,* Vol. I, p. 202, para. 57, U. N. Doc. A/CONF. 62/SR. 46.

Act [1]. The President of the United States signed the legislation, which established a 200-nautical-mile fishery conservation zone, effective 1 March 1977, notwithstanding the recommendations of the Departments of State and of Defense that the President veto the proposed law. Thus, the United States adopted the 200-nautical-mile zone with internal disagreement, in the face of rapidly evolving international practice. Once the United States acted, Canada enthusiastically established a 200-nautical-mile fisheries zone under its 1970 law. Many of the major maritime powers also declared such zones [2].

SECTION 3. The United States Rejected the 1979 Fisheries Agreement Because It Was Inconsistent with Rights Accruing to the United States under the 200-Nautical-Mile Resource Zone

30. The negotiation of the 1979 east coast fisheries agreement reflected Canada's pursuit of its coastal-State interests under the evolving law of the sea, and the initial reluctance of United States representatives to negotiate from the same perspective. The vast majority of United States fishermen and all the United States Senators and Representatives from New England rejected the agreement, because it did not respect the exclusive jurisdiction of the United States within its new 200-nautical-mile fisheries zone. As Canada itself acknowledges, the failed agreement "cannot be resurrected [3]". Canada, nonetheless, attempts to make much of that rejected agreement, notwithstanding its irrelevance as a matter of law to these proceedings [4].

31. The Parties' Memorials recount the negotiation of a fisheries *modus vivendi* for 1977 and the appointment of special negotiators by the President and the Prime Minister in July, 1977 [5]. The special negotiators were instructed to resolve all four United States-Canada maritime boundaries and the fishery problems on both coasts. They were directed to report the principles for such an agreement by 15 October 1977 and the

[1] United States Memorial, Annex 8, Vol. I.

[2] Between the enactment of the Fishery Conservation and Management Act in April, 1976, and the establishment of the fishery conservation zone on 1 March 1977, at least 19 other 200-nautical-mile zones were established: Comoros, 15 June 1976; Guatemala, 1 July 1976; Mexico, 31 July 1976; Mozambique, 19 Aug. 1976; Maldives, 5 Dec. 1976; Pakistan, 31 Dec. 1976; Canada, 1 Jan. 1977; Denmark, 1 Jan. 1977; Federal Republic of Germany, 1 Jan. 1977; Ireland, 1 Jan. 1977; Norway, 1 Jan. 1977; United Kingdom, 1 Jan. 1977; India, 15 Jan. 1977; Sri Lanka, 15 Jan. 1977; France, 11 Feb. 1977; French Guiana, 25 Feb. 1977; St. Pierre and Miquelon, 25 Feb. 1977; Cuba, 26 Feb. 1977; and, the Soviet Union, 1 Mar. 1977.

[3] Canadian Memorial, para. 276.

[4] *See* United States Counter-Memorial, Part II, Chapter III.

[5] United States Memorial, paras. 152 and 155; Canadian Memorial, paras. 248 and 249.

final agreement by 1 December 1977. The goal was to reach a comprehensive settlement of all these matters before the 1977 *modus vivendi* expired on 31 December 1977. Such a goal proved elusive.

32. On 14 October 1977, one day before the special negotiators were to report to the President and to the Prime Minister on the principles of a comprehensive solution, Canada informed officials of the United States Department of State of an analysis that Canada had undertaken of the legal implications of the decision in the *Anglo-French Arbitration*[1]. During this meeting, at a critical juncture in the negotiations, Canada for the first time informed the United States that it intended to abandon its equidistant line and expand its claim to include another 3,000 square nautical miles, mostly on Georges Bank[2]. Moreover, and still during the course of negotiations, Canada expelled United States fishermen from Canada's undisputed 200-nautical-mile zone, notwithstanding the more than 200 years of fishing by the United States within that area.

[1] *Decisions of the Court of Arbitration of 30 June 1977 and 14 March 1978* [hereinafter *Decisions*]. On 3 November 1977, Canada sent the United States a diplomatic note confirming the discussions that took place on 14 October 1977. [Note No. GNT-067 from the Dept. of External Affairs to Embassy of the United States; United States Memorial, Annex 69, Vol. IV.] The note summarizes the Canadian legal analysis that was presented to United States officials. That analysis consisted of two parts. The first was a short statement by Ambassador Cadieux rationalizing the Canadian decision to change its position following the *Anglo-French Arbitration* [Annex 9]; the second consisted of a detailed legal exposition by Mr. M. D. Copithorne, the Canadian Legal Adviser (the "14 October 1977 Canadian Legal Statement"), in which, in the words of the contemporaneous statement of Ambassador Cadieux [Annex 9], Canada set forth "the most recent trends in our thinking at the official level and ... the advice which is likely to be available to Canadian political leaders as they make their decisions on matters which are within our terms of reference". In this Reply, the United States will refer to certain details of that 14 October 1977 Canadian Legal Statement.

[2] United States Memorial, para. 155 and Annex 69, Vol. IV. The perception of the United States was that the Canadian action was designed to avoid the thrust of the *Anglo-French Arbitration* Award (which rejected the legal theories upon which the Canadian equidistant line was predicated), and to leave the original Canadian equidistant line located between the new Canadian position and the United States position at the Northeast Channel. The United States recognized that the Award better supported a United States claim that Nova Scotia was entitled to a 12-nautical-mile enclave in the Gulf of Maine than it supported the expanded Canadian claim. Consideration was given to the possibility of amending the United States claim at that time. The United States maintained its 1976 position, however, and sought to convince Canada not to make public its new position during the continuing negotiations, which Canada agreed to do for the time being. The decision of the United States to moderate its claims while the negotiations were still in progress was consistent with the obligation of all States under international law to engage in good-faith negotiations aimed at narrowing their differences.

In the negotiations, Canada adamantly adhered to the position that it must obtain under the proposed fishery agreement all the resources that it would receive were its extreme and inequitable boundary claim to prevail.

33. The United States approach, on the contrary, was attuned to traditional methods of conducting fisheries negotiations that predated the advent of the 200-nautical-mile zone. The United States did not press in the fishery negotiations for everything to which it believed itself entitled under its boundary claim. For instance, the United States was prepared to accept Canadian fishing on Georges Bank for a limited, transitional period. The rights that the United States was prepared to grant to Canada for an interim period, however, were not consistent with United States long-term rights in, and jurisdiction over, Georges Bank. When the negotiations shifted from a transitional to a permanent agreement, political support in the United States evaporated. The United States rejected the 1979 fisheries agreement because the rights to fishery resources of Georges Bank that the failed agreement would have granted to Canada were inconsistent with rights accruing to the United States under the jurisdiction of the 200-nautical-mile resource zone.

34. By the time the Senate conducted hearings on the proposed agreement in April, 1980, it was widely recognized that the document was not in consonance with the rights of the United States in the new era of extended jurisdiction. Indeed, Congress vehemently opposed the proposed agreement—notwithstanding that the President's political party had a majority in both houses of Congress [1]. Committee hearings were held in the face of strong opposition only because of the insistence of Canada [2].

35. The following representative statements from United States Senators are drawn from the 1980 Senate hearings:

Senator Pell of Rhode Island:

> "First of all I would like to say, I very much favor the idea of an East Coast Fisheries Treaty with Canada, as well as a treaty setting forth the arrangements for a settlement of the maritime boundary in

[1] The Canadian Counter-Memorial asserts that there was a balance between the supporters and opponents of the 1979 fisheries agreement in the United States. [Para. 390.] It is traditional in treaty confirmation and legislative hearings conducted by the United States Congress for both sides of an issue to be heard. Accordingly, a few supporters of the proposed agreement appeared at the hearing. *What is significant is that there was not one Senator prepared to speak, or to vote,* in support of this agreement. Accordingly, there is no basis to contend that there was any balance between supporters and opponents of the agreement.

[2] Canada at one time characterized this issue as the most serious bilateral issue between Canada and any other State. Canadian Memorial, Annexes, Vol. II, Annex 46.

the Gulf of Maine area, as long as our fishermen are treated fairly. This, I think, is not the case with the present treaty.

I am particularly pleased that the World Court would be involved in the boundary settlement as I have been long concerned that governments rely too little on the ICJ [International Court of Justice], to resolve disputes. Having said this, I repeat that I am deeply concerned about the terms of the present fisheries treaty.

. . . [M]y own analysis has led me to conclude that the treaty in its present form is inequitable and should not be approved by the Senate".

. . . .

"In 1976, the Congress enacted the fisheries conservation and Management Act to reduce foreign fishing in a 200-mile zone off our shores . . . I regret to say that this Fisheries Treaty as it now stands would frustrate the intent of the 1976 law . . . [1]".

Senator Cohen of Maine:

"I have come to the conclusion that the agreement should not be approved by the Senate, and ratified by the President, in its present form [2]."

Senator Chafee of Rhode Island:

"[T]he way to proceed would be to have the boundary defined and then allocate the management duties. But . . . the only way to resolve this boundary dispute is by binding arbitration, going to the World Court, and this requires the consent of both parties. Canada will not consent without a prior management agreement.

Thus, it appears, there has to be a package deal here. Regretfully, the package as worked out is not satisfactory in my judgment [3]."

Senator Weicker of Connecticut:

"I consider Canada a great friend of this country and I absolutely insist that it be treated fairly in any negotiations. But I also insist that our own fishermen be treated fairly as well.

The east coast fisheries treaties signed with Canada on March 29, 1979, do not, in my estimation, treat our fishermen fairly [4]."

[1] Hearings Before the Committee on Foreign Relations, United States Senate, 96th Congress, 2nd Session, 15 and 17 April 1980, "Maritime Boundary Settlement Treaty and East Coast Fishery Resources Agreement" [hereinafter "Hearings"], pp. 1 and 2. Pertinent portions of the hearings are *reprinted at* Annex 10.

[2] Hearings, p. 4.

[3] Hearings, p. 8.

[4] Hearings, p. 75.

36. The then Deputy Secretary of State sought to defend the fisheries agreement as necessary to prevent harm to "our vitally important bilateral relationship [1]". Senator Javits of New York replied as follows:

> "We must not confuse the idea that we have to ratify a treaty which we may not consider a fair treaty just because we are friends. The Canadians would not do it, and they should not expect us to do it [1]."

37. Following the Presidential election of 1980, the new Administration discovered that no New England Senator, Congressman, or state official would support the proposed fisheries agreement. Canada rejected every alternative or modification that was proposed [2]. Therefore, the President withdrew the agreement from consideration by the Senate. In United States constitutional practice, this is an unusual step that reflected a complete lack of political support for the fisheries agreement.

[1] Hearings, p. 20.

[2] As the Canadian Counter-Memorial notes [para. 222, n. 65], during the period of Senate consideration of the fisheries agreement, modifications to its provisions were proposed by Senator Kennedy of Massachusetts and others in order to garner United States support for a revised agreement. These proposals, in general, suggested that the agreement be subject to termination after a period of years, in keeping with the view that the purpose of the fisheries agreement was to provide a transition to exclusive coastal-State 200-nautical-mile fisheries jurisdiction. Canada rejected these proposals.

CHAPTER II

FROM THE TRUMAN PROCLAMATION FORWARD, THE UNITED STATES CONSISTENTLY HAS MAINTAINED THAT THIS MARITIME BOUNDARY MUST BE DETERMINED BY AGREEMENT IN ACCORDANCE WITH EQUITABLE PRINCIPLES AND THAT GEORGES BANK APPERTAINS TO THE UNITED STATES; CANADA'S EFFORTS TO ESTABLISH THIS BOUNDARY UNILATERALLY HAVE FAILED

38. Canada's argument that it has "rights [in Georges Bank] which vested [1]" is extraordinary in view of the history of the dispute and the applicable international law.

SECTION 1. The Truman Proclamation Established That This Boundary Would Be Determined by Agreement in Accordance with Equitable Principles

39. In the view of the United States, the present dispute "stems from the issuance" of the Truman Proclamation [2]. In its Counter-Memorial, Canada described this United States position as "fanciful [3]". Canada cannot so easily dismiss the Truman Proclamation, which has been described by the Court "as the starting point of the positive law on the subject [4]" of the continental shelf.

40. The United States issued the Truman Proclamation in 1945 after notice to, and consultation with, Canada conducted through diplomatic channels [5]. There was no protest or other reservation by Canada. The purpose of the Truman Proclamation was to establish in general terms the sovereign rights and jurisdiction of the United States over its continental shelf. The Proclamation stated: "the continental shelf may be regarded as an extension of the land-mass of the coastal nation and thus

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[1] Canadian Memorial, para. 388.

[2] United States Memorial, para. 133. The Proclamation is *reprinted at* United States Memorial, Annex 3, Vol. I.

[3] Canadian Counter-Memorial, para. 392.

[4] *I.C.J. Reports 1969*, pp. 32-33, para. 47.

[5] Drafts of the Truman Proclamation were provided to the Embassy of Canada on 26 Apr. 1945. United States Memorial, Annex 3, Vol. I.

naturally appurtenant to it [1]". The Proclamation dealt specifically with the continental shelf boundaries of the United States:

> "[i]n cases where the continental shelf extends to the shores of another State, or is shared with an adjacent State, *the boundary shall be determined by the United States and the State concerned in accordance with equitable principles* [2]."

President Truman's Proclamation applied to the Gulf of Maine area. Accordingly, the official policy of the United States, promulgated at the highest executive level and without protest by Canada, long has called for the boundary in this case to be determined by agreement in accordance with equitable principles.

SECTION 2. The 1958 Geneva Convention on the Continental Shelf Carried Forward the Principles of the Truman Proclamation

41. The 1958 Geneva Convention on the Continental Shelf [3] carried forward the principles of the Truman Proclamation. The United States unequivocally endorsed the Convention, and signed and ratified it at the earliest opportunity. These steps were taken with the understanding that the Convention was consistent with the Truman Proclamation. As both the United States Department of State and the Committee on Foreign Relations of the United States Senate have stated:

> "The Convention should prove specially beneficial to the United States since it endorses numerous principles which the United States has been following since they were first enunciated in the 1945 Proclamation of President Truman concerning the continental shelf [4]."

42. The International Court of Justice in the *North Sea Continental Shelf* cases found that the preparatory work of the International Law Commission and Article 6 of the Continental Shelf Convention reflected

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[1] United States Memorial, Annex 3, Vol. I.

[2] United States Memorial, Annex 3, Vol. I. [Emphasis added.]

[3] United States Memorial, Annex 5, Vol. I.

[4] "Answers to Questions of Senate Foreign Relations Committee Concerning the Law of the Sea Conventions", prepared by the Dept. of State, 2 Mar. 1960; "Hearing Before the Committee on Foreign Relations ", United States Senate, 86th Congress, 2nd Session, Execs. J, K, L, M, and N, 20 Jan. 1960, p. 93; Report of the Committee on Foreign Relations of the United States Senate, 86th Congress, 2nd Sess., Exec. Rept. No. 5, accompanying the "Law of the Sea Convention ", 27 Apr. 1960, p. 11. Annex 11.

the two fundamental United States positions established in the Truman Proclamation:

> " . . . it is clear that at no time was the notion of equidistance as an inherent necessity of continental shelf doctrine entertained. Quite a different outlook was indeed manifested from the start in current legal thinking. It was, and it really remained to the end, governed by two beliefs;—namely, first, that no one single method of delimitation was likely to prove satisfactory in all circumstances, and that delimitation should, therefore, be carried out by agreement (or by reference to arbitration); and secondly, that it should be effected on equitable principles. It was in pursuance of the first of these beliefs that in the draft that emerged as Article 6 of the Geneva Convention, the Commission gave priority to delimitation by agreement,—and in pursuance of the second that it introduced the exception in favor of 'special circumstances' [1]".

43. Thus, Article 6 of the 1958 Geneva Convention affirmed the delimitation principle of the Truman Proclamation that boundaries were to be established by agreement and in accordance with equitable principles. Since that time, the *North Sea Continental Shelf* cases, the *Anglo-French Arbitration,* the *Tunisia/Libya* case, and the Convention adopted by the Third United Nations Conference on the Law of the Sea have reaffirmed this principle. The converse of this principle necessarily is of equal force: if boundaries must be determined by agreement, it follows that they cannot be established by unilateral act. As the Court stated:

> "The Court would therefore observe . . . that an attempt by a unilateral act to establish international maritime boundary lines regardless of the legal position of other States is contrary to recognized principles of international law, as laid down, *inter alia,* in the Geneva Conventions of 1958 on the Law of the Sea . . . which provide that maritime boundaries should be determined by agreement between the Parties [2]."

44. In brief, from the Truman Proclamation forward, there has evolved a continuum of law that is applicable to maritime boundaries in general and to United States continental shelf boundaries in particular. The conduct of the Parties must be interpreted in this context, with the result that Canada's attempt to establish a boundary unilaterally, "even at the risk . . . of appearing to disregard international legal precedents and procedures [3]", is not opposable to the United States.

[1] *I.C.J. Reports 1969*, pp. 35-36, para. 55.

[2] *I.C.J. Reports 1982,* pp. 66-67, para. 87. [Emphasis in original.] *See also* Dissenting Opinion of Judge Gros, p. 155, para. 22.

[3] Gotlieb and Dalfen, *op. cit.*, p. 245. Annex 1.

SECTION 3. Georges Bank Fell within the United States Definition of Its Continental Shelf at the Time of the Truman Proclamation

45. The press release accompanying the Truman Proclamation described the continental shelf of the United States as follows: "submerged land which is contiguous to the continent and which is covered by no more than 100 fathoms (600 feet) of water [1]". That description includes all of Georges Bank. Through no stretch of scientific fact is Georges Bank within the 100-fathom-depth contour contiguous to the coast of Canada [2].

46. The definition of the continental shelf from 1945 through 1958 did not include the Northeast Channel and much of the Gulf of Maine Basin, both of which reach depths of more than 100 fathoms. From 1945 until the First United Nations Conference on the Law of the Sea, which brought about general acceptance of a broader definition of the continental shelf, the only continental shelf boundary that *could* have existed under the contemporary definition of the continental shelf would have confirmed United States jurisdiction over all of Georges Bank. *See* Figure (183) 1 [3]. In that period, the continental shelf boundary would have been located somewhere between the international boundary terminus and the 100-fathom-depth contour. Canada could not have vaulted the Northeast Channel to claim portions of Georges Bank, none of which is within the 100-fathom-depth contour contiguous to the coast of Canada, and all of which is within the 100-fathom-depth contour contiguous to the coast of the United States.

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[1] United States Memorial, Annex 3, Vol. I.

[2] The United States does not contend that the reference to the 100-fathom-depth contour in the press release accompanying the Truman Proclamation constituted a specific United States boundary claim in the Gulf of Maine area. As the Proclamation noted, the boundaries themselves would be established by agreement *in accordance with equitable principles*. Nonetheless, the description of the United States continental shelf, to which Canada did not take exception, would not countenance a unilateral Canadian claim to any portion of Georges Bank, and Canada was placed on notice in this respect.

(183) [3] Fig. 1 is a compilation of several depictions of the continental shelf as it was defined from the issuance of the Truman Proclamation until the First United (183) Nations Conference on the Law of the Sea. Fig. 1A is a chart of the 100-fathom-depth contour in the Gulf of Maine and adjacent areas prepared from current data (183) sources. Figs. 1B through 1D are reproduced from authoritative sources, and all show the 100-fathom-depth contour as the limit of the continental shelf, with Georges Bank entirely within the 100-fathom-depth contour contiguous to the coast of the United States. The Gulf of Maine area is enlarged in an inset on Fig. (183) 1C.

SECTION 4. United States Actions Always Have Been Consistent with the Position That Georges Bank Appertains to the United States

47. When the United States began exploration activities on the outer continental shelf in the 1960s, it proceeded on the basis that the United States continental shelf included all of Georges Bank [1]. The Canadian pleadings, however, use such words as "accepted [2]", "prolonged acceptance [3]", and "prolonged recognition [4]" to characterize United States actions with regard to the permits on Georges Bank issued by Canada beginning in 1964. Canada even suggests that the United States "adhered to [5]" an equidistant-line boundary position from 1965 to 1969. These unfounded assertions then become the primary basis for Canada's accusation that the United States claim in this case is "expansionist [6]".

48. Canada undertook its permit program without notice to, or consultation with, the United States, and pursuant to a Canadian statute that was not applicable on its face to the continental shelf [7]. In seeking to establish United States acquiesence, Canada has elected to rely upon an exchange of correspondence that was instigated by Mr. Luther Hoffman, a mid-level United States government employee of no diplomatic standing. Mr. Hoffman clearly indicated to Canadian officials that he had no authority to act on behalf of the United States with respect to any matters of international significance, and did not purport so to act.

49. The United States Counter-Memorial sets forth the law of acquiescence and estoppel [8] and the facts associated with Canada's program [9]. The Counter-Memorial lists seven reasons why the doctrines of acquiescence and estoppel do not bar the United States from contesting Canadian claims to jurisdiction over a portion of Georges Bank [10]:

— Canada Did Not Assert Clearly and Unambiguously a Maritime Boundary Claim in the Gulf of Maine Area in Which the United States Could Acquiesce;

[1] United States Counter-Memorial, paras. 100-102.

[2] Canadian Memorial, para. 214; Canadian Counter-Memorial, paras. 614 and 719.

[3] Canadian Counter-Memorial, para. 356.

[4] Canadian Counter-Memorial, para. 608.

[5] Canadian Counter-Memorial, para. 21.

(44) [6] Canadian Counter-Memorial, para. 227 and Fig. 1.

[7] For a legal analysis of the subject law by a Canadian writer, *see* United States Counter-Memorial, Annex 43, Vol. V. Canada's unilateralism in the face of established international law to the contrary is illustrated by its statement that it had "no obligation" to give notice to the United States. Canadian Counter-Memorial, para. 376.

[8] United States Counter-Memorial, Part II, Chapter IV.

[9] United States Counter-Memorial, Part I, Chapter VII.

[10] United States Counter-Memorial, Part III, Chapter I.

— Mr. Hoffman, a United States Government Employee, Did Not Acquiesce in Any Purported Canadian Claim;

— Mr. Hoffman Lacked the Authority to Consent to Any Purported Canadian Claim;

— The Conduct of the United States Both Before and During the Relevant Period Was Inconsistent with Consent to Any Purported Canadian Claim;

— The United States Made Timely Protest of Any Purported Canadian Claim;

— Canada Did Not Rely to Its Detriment Upon Any Action or Inaction of the United States;

– Canada's Claim of Acquiescence Ignores the Fisheries and Other Dimensions of This Case.

50. As a matter of both law and fact, the United States, by its conduct, has not consented at any time, either expressly or tacitly, to an equidistant-line boundary in the Gulf of Maine area. Furthermore, Canada's assertions are contrary to the principle of international law that maritime boundaries are to be delimited by agreement in accordance with equitable principles.

51. In 1968, the United States reminded Canada of the interests of the United States in Georges Bank [1]. The immediate impetus for this action were rumors that Canada might begin exploratory drilling for oil and gas on the Bank. The United States reserved its position and called for a negotiation of the boundary and for a moratorium on exploratory drilling. The United States had no plans to open Georges Bank for such drilling at that time. Canada authorized no drilling, and no negotiations were held. On 5 November 1969, the United States reaffirmed its interest in specifically agreeing upon a moratorium and formally protested the Canadian permits [2]. Canada's response rejected the proposed moratorium [3].

52. In 1970, the Parties held one brief negotiating session concerning this boundary [4]. No progress was made, as the Parties had fundamentally different views. Canada, which by this time had ratified the Continental

[1] Aide-Memoire from the Dept. of State to Embassy of Canada, 10 May 1968, at United States Memorial, Annex 55, Vol. IV; *see also* United States Memorial, para. 138; Canadian Memorial, para. 211 and Annexes, Vol. III, Annex 11.

[2] Note from the Dept. of State to Embassy of Canada, 5 Nov. 1969, at United States Memorial, Annex 56, Vol. IV.

[3] Note No. 366 from Embassy of Canada to the Dept. of State, 1 Dec. 1969, at United States Memorial, Annex 56, Vol. IV.

[4] United States Memorial, para. 143; Canadian Memorial, para. 212.

Shelf Convention [1], called for an equidistant line, asserting that there were no special circumstances in the area. The United States maintained that the boundary should run through the Northeast Channel.

53. Between 1970 and mid-1975, no boundary negotiations were held. Government officials were preoccupied with the preparations for, and the first negotiating sessions of, the Third United Nations Conference on the Law of the Sea. Nevertheless, the actions of the United States during this period relevant to jurisdictional rights were consistent with its view that the boundary should follow the Northeast Channel. These actions included the authorization of oil and gas exploration activities [2] and the enactment of laws and regulations concerning the living resources of the continental shelf [3].

54. In the latter part of 1975, the United States undertook preparations to accelerate its offshore oil and gas program on Georges Bank. At the same time, the outlines of the new 200-nautical-mile fisheries law began to emerge. The United States Department of State and the Canadian Department of External Affairs initiated a series of discussions on a continental shelf boundary for the Gulf of Maine area. These discussions followed a predictable course. The United States maintained that Article 6 of the Continental Shelf Convention was the controlling law; that the Northeast Channel, the fishing banks, and the configuration of the coast constituted special circumstances; and, that Article 6 should be construed consistently with the Truman Proclamation and with the decision of the Court in the *North Sea Continental Shelf* cases. Canada agreed that Article 6 was the controlling law, but espoused a narrow interpretation of special circumstances and argued that the United States had the onus of

[1] It is noteworthy that, when Canada ratified the Continental Shelf Convention (following the Court's judgment in the *North Sea Continental Shelf* cases), it propounded a "declaration" to Article 1 that arguably is applicable to this delimitation. It stated: "the presence of an accidental feature such as a depression or a channel in a submerged area should not be regarded as constituting an interruption in the natural prolongation of the land territory of the coastal State into and under the sea". [United States Memorial, Annex 52, Vol. IV.] The United States formally responded that this "declaration" was unacceptable. [United States Memorial, Annex 52, Vol. IV.] The "declaration" would appear to be contrary to Article 12 of the Convention. To the extent Canada intended the "declaration" to have some meaning to the delimitation in the Gulf of Maine area, it demonstrates that, six years after its permit program had begun, Canada recognized that the United States in no way had acquiesced.

[2] United States Memorial, para. 146.

(29) [3] United States Memorial, paras. 144 and 145, and Fig. 16.

proving them [1]. Canada maintained that the factors identified by the Court in the *North Sea Continental Shelf* cases were irrelevant. In these discussions, neither side specified the geographic coordinates of its boundary position, but the United States reaffirmed its position that Georges Bank appertained to the United States.

55. By late 1976, no progress had been made toward an agreement upon a continental shelf boundary, yet both States were about to establish 200-nautical-mile fishing zones. Canada notified the United States that Canadian law required the geographic coordinates of Canada's claim to be published in *The Canada Gazette.* Notwithstanding an appeal by the United States that this action be delayed in order to avoid exacerbating the dispute [2], Canada, on 1 November 1976, published for the first time the coordinates of its equidistant-line claim in the Gulf of Maine area [3].

56. The United States had hoped to avoid publicly defining a specific line in the Gulf of Maine area. It believed that the publication of official claims by the Parties would harden negotiating positions and public opinion in each State. Canada's precipitous action, however, required a United States response. On 4 November 1976, the United States published in the *Federal Register* the geographic coordinates of a specific boundary claim to the continental shelf (and fisheries zone) in the Gulf of Maine area [4].

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[1] Canada's position prior to the decision of the Court of Arbitration in the *Anglo-French Arbitration* is set forth in a public document distributed by the Canadian Government on 10 June 1977. Annex 12. It states:

> "[Canada] does not believe that any 'special circumstances' exist in the Gulf of Maine/Georges Bank area. . . .
>
> Canada does not accept that the régime of customary, international law, as defined and applied by the International Court of Justice between states not bound by the Continental Shelf Convention, is applicable to the determination of continental shelf boundaries between Canada and the USA. Moreover it does not accept the factors identified by the International Court of Justice as being legally relevant to the delimitation of the continental shelf boundary in the North Sea Cases are present in the Gulf of Maine area."

[2] The issue was raised in a meeting of 15 Oct. 1976 between the then Secretary of State and Secretary of State for External Affairs.

[3] United States Memorial, para. 150, and Annex 63, Vol. IV; United States Counter-Memorial, para. 116; Canadian Memorial, para. 224, and Annexes, Vol. II, Annex 29.

[4] United States Memorial, para. 150, and Annex 64, Vol. IV; Canadian Memorial, para. 225.

SECTION 5. The Line Adopted by the United States on 4 November 1976 Was a Moderate, Good-Faith Negotiating Position

57. Canada has called the line adopted by the United States on 4 November 1976 "extreme [1]" and "arbitrary [2]". Canada makes this statement irrespective of the fact that the line was fully consistent with the Truman Proclamation, with Article 6 of the Continental Shelf Convention, and with the judgment of the Court in the *North Sea Continental Shelf* cases, as well as with the geographical facts of this case. Moreover, the line was far from one of maximum advantage; rather, it was a moderate position, put forward in an effort to reach agreement with Canada and to avoid the political and economic disadvantages of a prolonged boundary dispute.

58. The 1976 United States claim generally followed the line of deepest water through the Gulf of Maine Basin and the Northeast Channel [3]. It was approximately equidistant between the 100-fathom-depth contours in the Gulf of Maine Basin and the Northeast Channel. In other words, it divided the continental shelves of the Parties as they were defined between 1945 and 1958 [4].

59. This 1976 line was based upon the equidistance-special circumstances rule of Article 6 of the Continental Shelf Convention. There are special circumstances in the Gulf of Maine area that render an equidistant line inequitable in this case. Every scholarly examination of the rule in Article 6 has identified the configuration of the coast as a potential special circumstance [5]. As the Court previously has demonstrated, an equidistant line may be particularly inequitable in the case of concave or convex coasts [6]. In the Gulf of Maine area, there is the additional factor that the land boundary meets the sea in the corner of the large coastal concavity that is the Gulf of Maine. There is no doubt, in the view of the United States, that such a coastal concavity and such a location of the

[1] Canadian Counter-Memorial, para. 26.

[2] Canadian Counter-Memorial, para. 618.

[3] Because the line took account of seabed geomorphology, it was less of a "hydrographic roller coaster" [Canadian Counter-Memorial, para. 400] than either of the Canadian lines.

[4] It has been suggested that a similar technique was used in the Bay of Biscay delimitation. *See* J. L. de Azcárraga, "España Suscribe, con Francia e Italia, Dos Convenios sobre Delimitación de sus Plataformas Submarinas Comunes". United States Counter-Memorial, Annex 10, Appendix A, Vol. IV.

[5] *See, e.g., I.C.J. Reports 1969*, pp. 53-54, para. 101(D) [*dispositif*]; *I.C.J. Reports 1982*, p. 93, para. 133.B(2) [*dispositif*]; and p. 55, para. 86; S.W. Boggs, *International Boundaries*, 1940, p. 188; A.L. Shalowitz, *Shore and Sea Boundaries*, 1962, Vol. I, para. 2212, n. 55; A.O. Cukwarah, *The Settlement of Boundary Disputes in International Law*, 1967, p. 76.

[6] *I.C.J. Reports 1969*, pp. 17-18, para. 8.

land boundary are special circumstances under Article 6 of the Convention.

60. The 1976 United States line also took account of the fishing banks in the area and of the Northeast Channel as additional special circumstances. That line did not divide the fishing banks and followed the Northeast Channel. The Northeast Channel is a prominent feature of the seabed in the area, marking the southwestern limit of the continental shelf within the 100-fathom-depth contour contiguous to the coast of Canada and the northeastern limit of that contour contiguous to the coast of the United States.

61. The 1976 United States line also meets the test of proportionality, (184)(185) whereas the 1976 Canadian line would not. Figures 2 and 3 [1].

62. Even were the proportionality test to be conducted entirely in Canada's favor, through the use of a restricted test area that excludes all the maritime area in front of Canada's primary coast facing the Atlantic Ocean, the results prove that the 1976 United States line was equitable to Canada, whereas Canada's 1976 line was inequitable to the United States. The lengths of the United States and Canadian coasts facing the Gulf of Maine form a ratio of three to one, or 75:25. Nonetheless, the 1976 Canadian line would leave to Canada 46 per cent, or nearly one-half, of the total maritime area seaward to 200 nautical miles, including a huge area that lies entirely and solely off the coast of the United States. *See* Annex 99 of the United States Memorial. The 1976 United States line would leave to Canada more than one-third of this restricted test area, or over 30 per cent more than that to which Canada would be entitled under a strict coastline-to-area ratio [2].

63. For all these reasons, the United States line of 4 November 1976 was firmly rooted in the law. It also offered a reasonable settlement in conceding the following to Canada: (1) a large part of the Gulf of Maine Basin; (2) one-half of the Northeast Channel; (3) all of the far southwestern Scotian Shelf; (4) an area seaward of the Gulf of Maine where Canada has no coastal front facing the Atlantic Ocean; and (5) a total area out of proportion to Canada's short southwestern coast of Nova Scotia facing the Gulf of Maine—all irrespective of the fact that this entire area lies in front of the United States coast and has close historical ties to the United States [3]. The United States made this fair, even generous, offer as an inducement to Canada to accept and to confirm United States jurisdiction over Georges Bank, and thereby to avoid further dispute.

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[1] Annex 33 contains a technical description of the limits, distances, and areas used (184)(185) in the proportionality test of Figs. 2 and 3.

[2] *See* Annex 34 for the technical basis for these conclusions.

[3] In leaving to Canada a large part of the Gulf of Maine Basin, the 1976 United States line was more generous to Canada than would have been a line based upon the application of the equidstance method giving half effect to the southwest coast (193) of Nova Scotia as a special circumstance. *See* Annex 19.

SECTION 6. The United States Claim in This Adjudication Is Not Extravagant and Is Consistent with Prior United States Positions and International Law

64. *In its Memorial and Counter-Memorial*, the United States has proposed as the boundary a perpendicular to the general direction of the coast from the starting point agreed upon by the Parties, adjusted to avoid the splitting of fishing banks. Although this line differs from that proposed by the United States in 1976, it is consistent with the longstanding United States claim to Georges Bank. There are two principal reasons why the United States chose to assert this adjusted perpendicular line at the start of judicial proceedings, rather than changing its 1976 claim, as did Canada, during the course of negotiations.

65. First, in those negotiations, the United States did not espouse as broad a claim as that to which it believes it is legally entitled. The United States did not do so because it believed that such a claim only would have made those negotiations more difficult. As the Court stated in the *North Sea Continental Shelf* cases:

> " . . . the parties are under an obligation to enter into negotiations with a view to arriving at an agreement, and not merely to go through a formal process of negotiation as a sort of prior condition for the automatic application of a certain method of delimitation in the absence of agreement; they are under an obligation so to conduct *themselves that the negotiations are meaningful, which will not be* the case when either of them insists upon its own position without contemplating any modification of it . . . [1]".

66. The restraint practiced by the United States in this regard may be contrasted with the decision of Canada to expand its claim in the very midst of negotiations and, indeed, while they were at a critical stage. The United States formally responded to that decision by stating:

> "[t]he Government of the United States is disappointed that the Government of Canada would take this step which is inconsistent with the process the two governments have underway aimed at narrowing differences in good faith to reach a comprehensive solution [2]."

67. If Canada is free to expand its claim during the course of negotiations, the United States certainly is entitled to reformulate its position after those negotiations have failed. Indeed, at the time the United States proclaimed its 1976 line, it specifically reserved the right to propound its full claim in future proceedings. The preamble to the

[1] *I.C.J. Reports 1969*, p. 47, para. 85.

[2] Note from the Dept. of State to Embassy of Canada, 2 Dec. 1977. United States Memorial, Annex 69, Vol. IV.

4 November 1976 *Federal Register* notice contained the formal statement reproduced below. In its overall import and all significant details, this statement is identical to that contained in Canada's notice of 1 November 1976. Canada relied upon that same statement to justify the expansion of its claim during the negotiating process.

> "The limits of the maritime jurisdiction of the United States as set forth below are intended to be without prejudice to any negotiations with Canada or to any positions which may have been or may be adopted respecting the limits of maritime jurisdiction in such areas [1]."

Were the law to restrict the right of a State to modify claims after the failure of negotiations, when the right to do so had been reserved, parties to boundary disputes would be encouraged to assert the broadest possible claims throughout negotiations, rather than to seek to narrow their differences in pursuit of an agreement. Such a result would contradict the fundamental rule of law that obligates parties to negotiate in good faith with a view toward the conclusion of an agreement.

68. The second reason underlying the decision of the United States to assert a new claim in these proceedings stems from the considerable development of the law between 1976 and the filing of the Memorials in this case. When it sought to justify the expansion of its claim during negotiations, Canada informed the United States:

> "The Government of Canada considers that its commitment to the rule of law implies an obligation to review its policies and positions in the light of the progressive development and clarification of international law through the processes of Treaty-making, codification, judicial decisions, state practice, and the writings of eminent jurists. In the absence of a situation of estoppel, states cannot and should not be bound by positions or policies which, as a consequence of the clarification or developement of legal norms, no longer conform to applicable principles and rules of international law. To adopt a contrary view would not only impede the development of internation-

[1] 41 *Federal Register* 48619-48620 (4 Nov. 1976). United States Memorial, Annex 64, Vol. IV. As Canada's Secretary of State for External Affairs said at the time: "I am pleased to note ... that the U.S. Government has mirrored the approach taken in the [Canadian] Order-in-Council by making it clear in the Federal Register Notice that the coördinates listed therein are without prejudice to any negotiation with Canada or to any positions which may have been or may be adopted respecting the limits of maritime jurisdiction in the boundary areas adjacent to Canada." *See* Annex 13. When Canada delivered its formal note of 3 November 1977, following the 14 October 1977 Canadian Legal Statement, Canada emphasized that its expanded claim was derived from its reservation of rights to assert any future position that it might choose. United States Memorial, Annex 69, Vol. IV.

al law, but would also constitute a serious obstacle to the settlement of disputes through negotitations and other peaceful means. The United States Government, I assume, holds similar views [1]."

Canada's comments in 1977 on the "progressive development and clarification" of the law are *a propos* to the United States proposal for the adjusted perpendicular line. The decision of the Court of Arbitration in the *Anglo-French Arbitration*, the decision of the Court in the *Tunisia/Libya* case, and the conclusion of the Third United Nations Conference on the Law of the Sea all occurred after the United States negotiating position of 4 November 1976 was adopted.

69. These events have contributed significantly to the development of the relevant law. They demonstrate unmistakably that the 1976 United States claim, which followed the line of deepest water through the Gulf of Maine Basin and the Northeast Channel, was fair to Canada. These developments lessened the emphasis on geology and equidistance and confirmed that boundaries are to be established in accordance with equitable principles, taking account of the relevant circumstances in the area. Once the negotiating phase between the Parties had concluded, it was appropriate for the United States to take account of these developments in presenting a formal position before the Court. The United States believes that, although its prior claim was sound and fully supportable, a single maritime boundary perpendicular to the coast, but adjusted so as not to divide fishing banks, best reflects the law as it has developed by taking account of the equitable principles and relevant circumstances applicable to this case.

[1] Statement of Ambassador Cadieux of 14 October 1977. Annex 9.

CHAPTER III

CONCLUSION: IN MAKING ITS CLAIMS IN THE GULF OF MAINE AREA, CANADA HAS SET FORTH LINES THAT ARE OVERREACHING

70. The Canadian Counter-Memorial expends considerable effort to characterize the United States as unreasonable and overreaching in this case. The history of this dispute reveals the contrary.

71. Since the 1958 Law of the Sea Conference, Canada has sought to expand its coastal jurisdiction in the most straightforward terms. Canada was one of the first States to propose that the continental shelf be defined so as to extend beyond the 200-meter-depth contour, and its position on coastal fisheries hindered agreement on the breadth of the territorial sea. Canada's jurisdictional claims in the Arctic exceed those of any other State. Canada was an early proponent of the 200-nautical-mile resource zone at the Third United Nations Conference on the Law of the Sea, and was perhaps the most assertive of those States seeking a broad definition of the continental shelf. Indeed, the Conference's formula for defining the outer edge of the continental margin would give Canada the world's second largest continental margin beyond 200 nautical miles [1]. Accordingly, it is hardly surprising that, with regard to the Gulf of Maine area, Canada consistently has sought to assert and to satisfy its claims on a strictly unilateral basis and to their maximum extent, as well as to take advantage of United States restraint.

72. Canada describes the United States claim as extravagant [2], and as "simply a straight line from Point 'A' to the northeast corner of the triangle [3]". In fact, the United States has claimed 5,954 square kilometers *less* than a line from the starting point to the corner of the triangle nearest to Canada. All of the area claimed lies in front of the United States coast. Although the United States adopted the regime of 200-nautical-mile

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[1] *See* D.G. Crosby, "Definition of the Continental Shelf: Article 76, L. O. S., Application to Canadian Offshore", Law of the Sea Inst., Annual Conference, 24 Jun. 1982, and Comments of D. Sherwin, Canadian Dept. of Energy, Mines and Resources, Law of the Sea Inst., Annual Conference, 6-9 Jan. 1975. Annex 14. The Soviet Union generally is regarded as having the largest continental margin beyond 200 nautical miles.

[2] Canadian Counter-Memorial, para. 44.

[3] Canadian Counter-Memorial, para. 22.

resource zones reluctantly, nevertheless, having done so, it now is entitled to claim those maritime areas that lie off its own coast. Canada, on the other hand, has claimed 9,076 square kilometers *more* than a straight line from the starting point to the corner of the triangle nearest the United States, notwithstanding that none of the seaward area lies in front of any (186) Canadian coast. *See* Figure 4. This comparison is but further evidence of the unreasonable and inequitable nature of Canada's position in this case.

PART III. THE PARTIES ARE IN FUNDAMENTAL DISAGREEMENT REGARDING THE LAW APPLICABLE TO THIS CASE: CANADA ASKS THE COURT TO RULE ON THE BASIS OF PREVIOUSLY REJECTED LEGAL ARGUMENTS AND RADICALLY TO ALTER ESTABLISHED LAW, WHEREAS THE UNITED STATES ASKS THE COURT TO RULE ON THE BASIS OF ESTABLISHED LAW, AS REINFORCED BY RECENT TRENDS

INTRODUCTION

73. The Parties are in fundamental disagreement regarding the law applicable to this case. Although Canada purports to accept the established law—the Fundamental Rule that maritime boundaries are to be established in accordance with equitable principles, taking account of the relevant circumstances in the area, to produce an equitable solution—Canada's true position now has emerged in its Memorial and Counter-Memorial. Canada invokes principles and rules other than those contained in Article 6 of the Convention on the Continental Shelf and those established by the relevant jurisprudence of the Court and of international arbitral tribunals. Canada urges the Court to set all this aside and to promulgate a radically new law of maritime boundary delimitation based upon previously rejected notions.

74. Canada suggests that a new law of delimitation has emerged from the introduction of the 200-nautical-mile limit. The Canadian Counter-Memorial would have the Court pursue "a different conceptual approach [1]" and "a reconsideration of ... the essential rationale of the conclusions reached by the Court in the *North Sea Continental Shelf* cases [2]", a rationale that, according to Canada, "no longer holds true [2]". In brief, Canada asks the Court to overturn its jurisprudence established in that and subsequent decisions, and instead to enunciate a new law, based upon rejected notions that will serve Canada's interests in this case.

75. Canada strives to find this new law in the provisions of the Convention adopted by the Third United Nations Conference on the Law of the Sea and in the recent trend of States in establishing 200-nautical-mile resource zones. In the emergence of the exclusive economic zone, Canada searches in vain for a rationale for the following arguments:

[1] Canadian Counter-Memorial, para. 468.

[2] Canadian Counter-Memorial, para. 561.

— that the 200-nautical-mile distance for measuring the outer limit of the zone has revived the notion of proximity in delimitation, vesting the equidistance method with a preferential status;

— that economic dependence has become a central consideration in delimitation, requiring an equitable sharing-out of resources between claimant States; and

— that established continental shelf doctrine no longer has legal relevance.

76. Rather than adhering to the Fundamental Rule, as it professes to do, Canada in fact seeks a full refashioning of the relevant jurisprudence. In so doing, Canada misreads the applicable case law, misapplies Article 6 of the Continental Shelf Convention, and misinterprets State practice. It also asks the Court to do what the Third United Nations Conference on the Law of the Sea refused to do—to rewrite the jurisprudence on the delimitation of maritime boundaries.

CHAPTER I

CANADA ASKS THE COURT TO OVERTURN ESTABLISHED LAW

SECTION 1. Canada Reintroduces the Notion of Proximity, Seeking to Enhance the Role of the Equidistance Method Beyond That Provided in Article 6 of the Continental Shelf Convention or under Customary Law

77. Canada relies upon the recent emergence of 200-nautical-mile resource zones, and the use of distance to define the outer limit of those zones, as a basis for reviving the proximity argument set forth by Denmark and the Netherlands in the *North Sea Continental Shelf* cases. The Court in that case decisively rejected that argument. Nevertheless, Canada proclaims that proximity to the coast is a "leading test of the strength of a claim [1]" and that "[d]istance from the coast, and not alignment or juxtaposition, provides the essential criterion of adjacency [2]". The Canadian thesis is formulated in the final conclusions of its Counter-Memorial, as follows: "the single maritime boundary should leave to each Party those areas of the sea that are closest to its coast [3]".

78. This Canadian viewpoint involves more than a radical departure from existing law. Its adoption would require the Court completely to overrule and abandon that law.

A. The Court and Arbitral Tribunals Have Rejected Proximity As a Basis for Delimitation

79. In 1969, the Court expressly rejected the existence of "a principle of proximity inherent in the basic concept of the continental shelf, causing every part of the shelf to appertain to the nearest coastal State and to no other [4]". The Court pointed out that proximity, as a conceptual basis for delimitation, was simply a rationalization for the use of the equidistance method [5]. The Arbitral Tribunal in the *Anglo-French Arbitration* in 1977 rejected the notion of proximity inherent in the claim of the United Kingdom in the Channel Islands area, and modified the equidistant line in the Atlantic region [6]. In 1982, in the *Tunisia/Libya* case, the Court did

[1] Canadian Counter-Memorial, para. 558.

[2] Canadian Counter-Memorial, para. 568.

[3] Canadian Counter-Memorial, para. 729(A)(3)(a).

[4] *I.C.J. Reports 1969*, p. 33, para. 49.

[5] *Ibid.*, p. 36, para. 56.

[6] *Decisions*, p. 118, para. 253 [*dispositif*].

not apply, and indeed expressly declined to consider, equidistance, which is the logical corollary of the proximity argument [1].

B. Canada's Reintroduction of the Notion of Proximity Is Based upon Incorrect Assumptions Concerning the Third United Nations Conference on the Law of the Sea

80. Canada attempts to support its outright rejection of existing law with the argument that "the factor of distance from the coast as the sole basis of title to a 200-mile-fishing zone or an exclusive economic zone, and as an important element in the revised definition of coastal State rights to the continental shelf, has strengthened the role of proximity in the law of delimitation [2]", "has given a new importance to proximity in the delimitation of maritime boundaries [3]", and "lends a new weight to equidistance as a method of delimitation [4]".

81. Canada seeks to elevate equidistance to a preferred legal status above all other methods. Canada apparently is not prepared to accept either the equidistance-special circumstances rule of Article 6 of the 1958 Continental Shelf Convention or the role identified for equidistance in customary international law. Canada instead would have distance from the coast—proximity—serve as the primary means of determining an equitable delimitation. Even from Canada's perspective, however, proximity is not an absolute requirement; Canada does not hesitate to disregard certain geographical features, such as Cape Cod and Nantucket Island, when to do so serves its own purposes.

82. The United States addressed the Canadian proximity/equidistance argument in its Memorial and Counter-Memorial [5]. There are two additional considerations that rebut the Canadian contention that the evolution of 200-nautical-mile zones in international law has elevated the equidistance method to a new and paramount role.

83. First, it simply does not follow that equidistance is required because the outer limit of a maritime zone is measured in terms of distance from the coast. For instance, the outer limit of the territorial sea in modern international law is defined in terms of distance. Nevertheless, even in that narrow area, international law has not regarded the equidistant line as absolute. Article 12 of the Territorial Sea and the Contiguous Zone

[1] *I.C.J. Reports 1982*, p. 79, para. 110.

[2] Canadian Counter-Memorial, para. 467. [Citation omitted.]

[3] Canadian Counter-Memorial, para. 553.

[4] Canadian Counter-Memorial, para. 559.

[5] *See* United States Memorial, Part II, Chapter III, Section 3.B, and Part III; United States Counter-Memorial, Part II, Chapter II, Section 2.

Convention establishes a delimitation rule that requires the use of other methods where equidistance would not be equitable. Article 6 of the Continental Shelf Convention accords even less weight to an equidistant line than does Article 12 of the Territorial Sea and the Contiguous Zone Convention. The reason for this difference in treatment was noted by the Court in 1969 when it stated that, in a territorial sea of more narrow breadth than the continental shelf, the inequitable effects of the equidistance method "are much less marked [1]". The logic of the Court's teaching would suggest that, in a 200-nautical-mile zone, which in many areas of the world extends beyond the continental margin, equidistance is entitled to even less weight than that afforded by Article 6.

84. The Convention adopted by the Third United Nations Conference on the Law of the Sea confirms this conclusion by the distinction it draws between the delimitation rules applicable to the territorial sea [2] and those applicable to the continental shelf and to the exclusive economic zone [3]. No reference is made to equidistance in the rule applicable to the continental shelf. An identical rule, and not the rule for the territorial sea, is the rule that the Convention applies to the delimitation of the exclusive economic zone. If the use of distance in describing an outer limit were seen to require an emphasis upon equidistance, the sharp distinction in the Convention between the rules expressly made applicable to the territorial sea, on the one hand, and those made applicable to the exclusive economic zone and the continental shelf, on the other hand, would be unnecessary. Moreover, that the new Convention, unlike Article 24 of the 1958 Convention on the Territorial Sea and the Contiguous Zone, does not specify that the territorial sea delimitation rules apply to the expanded 24-nautical-mile contiguous zone is further evidence that the territorial sea rule was not regarded by the Third Conference as applicable to areas lying beyond relatively narrow limits—i.e., beyond 12 nautical miles.

85. As zones of maritime jurisdiction extend farther seaward, greater care must be taken before the equidistance method is adopted in whole or in part. The Court has said that "in the case of concave or convex coastlines . . . if the equidistance method is employed, then the greater the irregularity and the *further from the coastline* the area to be delimited, (31) the more unreasonable are the results produced [4]". Figure 25 of the

[1] *I.C.J. Reports 1969*, p. 18, para. 8.

[2] Article 15 of the Convention adopted by the Third United Nations Conference on the Law of the Sea [hereinafter the 1982 Convention] is virtually the same as Article 12 of the 1958 Geneva Convention on the Territorial Sea and the Contiguous Zone.

[3] Articles 74 and 83 of the 1982 Convention.

[4] *I.C.J. Reports 1969*, p. 49, para. 89(a). [Emphasis added.]

United States Memorial, reproduced here as Figure 5, is based upon a diagram that appeared in the pleadings of the Federal Republic of Germany in the *North Sea Continental Shelf* cases. The Court referred to this diagram with approval [1]. Figure 5 demonstrates the inequitable result that may be produced by the extension of an equidistant line to 200 nautical miles from the coast. This inequitable result is produced when a delimitation that far seaward is dictated by the position of two isolated points on the land territory of two States, and that position is inconsistent with the general geographical relationship of the two States and the area to be delimited.

86. The second point concerning the effect of the 200-nautical-mile zone upon the equidistance method is that the development of the concept of the exclusive economic zone at the Third United Nations Conference on the Law of the Sea has no theoretical underpinning that has revived the notion of proximity. The concept of the exclusive economic zone was the subject of prolonged negotiations at the Conference, and its juridical content was unrelated to the issue of the delimitation of boundaries between neighboring States. Rather, those negotiations produced the result that coastal States were afforded the resource jurisdiction that they sought, in return for their recognition and confirmation of the navigational rights and freedoms the maritime States wished to protect.

87. The basic outlines of the exclusive economic zone emerged at the Third United Nations Conference on the Law of the Sea from a group organized by Minister Evensen of Norway prior to the 1975 session. Delimitation was not a subject of these negotiations, nor was it suggested that it should be. The work of this group was incorporated into the Informal Single Negotiating Text with but slight variations, and only minor changes were made thereafter.

88. The proximity argument that Canada has presented never was considered by this group or by the Conference at large. Canada's argument ignores both the essence of the exclusive economic zone and the reasons for selecting a 200-nautical-mile limit. The theme of the prolonged negotiations on the exclusive economic zone was the precise allocation of rights and duties, not the setting of the limits of that zone.

89. The reasons underlying the adoption of an outer limit of 200 nautical miles had nothing to do with delimitation. First, such a limit was regarded as a political necessity for securing a consensus that would include important States that previously had made varying claims to 200-nautical-mile zones. Second, a 200-nautical-mile limit, with the exception of a very few areas, would include the entire seaward migratory range of

[1] *I.C.J. Reports 1969*, pp. 17-18, para. 8.

fish species for which the coastal State was to exercise exclusive management responsibility under the text, i.e., those species whose life cycle was limited to coastal waters. Third, a precise, uniform limit was seen as more convenient for enforcement purposes than separate functional limits that would be dependent expressly upon the migratory characteristics of fish stocks. Fourth, an expansive mileage limit was regarded as reducing some of the geographical inequity perceived in the uneven continental margins around the world.

90. It was apparent from the outset of the Third United Nations Conference on the Law of the Sea that it would be necessary to address the issue of delimitation separately from all other issues in order for the Conference to be able to adopt any form of a Convention [1]. States were well aware of the potential effects that any delimitation formula might have upon their national interests, and each was determined not to be disadvantaged.

91. At the Second Session of the Conference, in the Spring of 1975, the Chairman of Committee II, in the course of preparing the delimitation articles of the Informal Single Negotiating Text, relied upon the precise language of the Court in the *North Sea Continental Shelf* cases, and, in an effort to achieve greater acceptance, added a reference to equidistance drawn from language in that judgment [2]. This text became the subject of great debate at the Conference. Years were devoted to the continual interchange of references to relevant circumstances, special circumstances, equitable principles, and equidistance. Finally, at virtually the last hour of the Conference, its President proposed the formula presently found in Articles 74 and 83, which, predictably, contained a broadly phrased text that contained no reference to equidistance. Articles 74 and 83 leave intact the body of law concerning maritime delimitation that existed prior to the Third United Nations Conference on the Law of the Sea. The reference in these provisions to the Statute of the Court constitutes an endorsement by the Conference of the existing sources of international law on the subject of delimitation. The reference does not constitute acceptance of some hidden transformation of those sources to

[1] For a discussion of the consideration of delimitation questions by the Third United Nations Conference on the Law of the Sea, *see* United States Counter-Memorial, paras. 205-213.

[2] Articles 61(1) (and 70(1)) of the Informal Single Negotiating Text, 9 May 1975, provided:

> "1. The delimitation of the exclusive economic zone [continental shelf] between adjacent or opposite States shall be effected by agreement in accordance with equitable principles, employing, where appropriate, the median or equidistance line, and taking account of all the relevant circumstances."

U.N. Doc. A/CONF.62/WP.8/Part II.

be found in the purported implications of the setting of an outer limit of 200 nautical miles to the exclusive economic zone. As a result, Articles 74 and 83 of the new Convention are further confirmation of existing law, i.e., that any method or combination of methods may be used in a delimitation to achieve an equitable solution, and that equidistance does not have a privileged status in relation to other methods [1].

92. The Canadian argument that the adoption of the exclusive economic zone itself, as opposed to the delimitation provisions, changed the law of delimitation is, to use words previously used by the Court, "an *ex post facto* construct [2]". The Conference rejected repeated efforts to invest the equidistance method with a preferred status in the delimitation articles. It never was suggested at the Conference, as Canada has argued in this case, that the emergence of the 200-nautical-mile zone would buttress the claims of those States advocating the primacy of the equidistance method in delimitations of their bilateral boundaries.

SECTION 2. Canada Asserts Mistakenly That a "profound transformation of the concept of the continental shelf [3]" Has Taken Place in International Law

93. Canada proclaims that the Third United Nations Conference on the Law of the Sea modified continental shelf doctrine [4]. The Canadian argument is an effort to overcome the Court's judgments in the *North Sea Continental Shelf* cases and the *Tunisia/Libya* case. Implicit in this argument is the view that (1) the regime of the exclusive economic zone has superseded the regime of the continental shelf (at least within 200 nautical miles of the coast) and (2) natural prolongation is no longer a relevant legal concept.

A. The Legal Regime of the Continental Shelf Remains Distinct from That of the 200-Nautical-Mile Resource Zone

94. Canada was one of the most outspoken and influential of all the States at the Third Law of the Sea Conference in proclaiming the

[1] *See I.C.J. Reports 1982*, p. 79, paras. 110-111. As the Court noted:

> "In the new text, any indication of a specific criterion which could give guidance to the interested States in their effort to achieve an equitable solution has been excluded. Emphasis is placed on the equitable solution which has to be achieved. The principles and rules applicable to the delimitation of continental shelf areas are those which are appropriate to bring about an equitable result. . . ". [*I.C.J. Reports 1982*, p. 49, para. 50.]

[2] *I.C.J. Reports 1969*, p. 49, para. 56.

[3] Canadian Counter-Memorial, para. 40.

[4] Canadian Counter-Memorial, para. 460. Canada makes this argument notwithstanding that the 1982 Law of the Sea Convention is not yet in force for any State, whereas the 1958 Geneva Convention on the Continental Shelf is in force between the Parties to this dispute.

inherent and vested rights of the coastal State over the continental shelf, from the territorial sea to the most seaward limits of the continental margin [1]. Canada insisted that the Convention must expressly confirm this view. The argument that Canada has set forth in this case—that the economic zone has superseded the continental shelf—contradicts this directly, and presumably would not apply to Canada's view of the continental shelf beyond 200 nautical miles. In any event, Canada is incorrect in asserting that the 200-nautical-mile zone has eliminated the legal regime of the continental shelf within that zone.

95. The Convention adopted by the Third United Nations Conference on the Law of the Sea expressly confirms the legal concept of the continental shelf as traditionally understood. The only significant change is the addition of more precise limits to replace the indeterminate "exploitability" criteria of the 1958 Continental Shelf Convention.

96. The definition of the outer edge of the continental shelf proved troublesome to the Third United Nations Conference on the Law of the Sea, as it had to the First Conference. States with broad continental margins, such as Canada [2], argued that the entire margin was a natural prolongation of their land territory over which they had vested sovereign rights. Such States were not prepared to accept a new 200-nautical-mile zone that would replace the continental shelf. There were two reasons for this view: these States would not relinquish jurisdiction over shelf areas seaward of 200 nautical miles; and, they would not relinquish the substance of the continental shelf regime either within or beyond 200 nautical miles. These broad margin States insisted—successfully—that any definition of the legal continental shelf must, in the first instance, include the entire continental margin from the territorial sea to the outer edge of the margin.

97. The fact that a geological or geomorphological limit produces unequal results off different coasts revived the same objections to a purely physical definition of the continental shelf that were encountered at the 1958 Conference. The decision to include a reference to 200 nautical miles in the definition of the continental shelf, irrespective of the character of the seabed areas involved, reflected the need in the negotia-

[1] Early in the Conference, a Canadian representative stated:

> "The 200-mile economic zone concept was appropriate to the geographic situation of most countries, but the continental margins of some countries were wider than 200 miles and provision should be made for those countries to maintain existing rights to the edge of the continental margin."

Third United Nations Conference on the Law of the Sea, *Official Records*, Vol. I, 27th Mtg., 3 July 1974, Statement of Mr. Davis, p. 97, para. 16.

[2] The United States also was regarded as a "broad-margin" State at the Law of the Sea Conference, although the United States continental margin beyond 200 nautical miles is not as extensive as those of many broad-margin States.

tions at the Third Conference to accommodate the interests of all States concerned. The States with broad continental margins concurred in the 200-nautical-mile reference as a supplement to the physical definition of the continental shelf, in return for acceptance of the principle that the continental shelf regime applies to the entire continental margin, both within and beyond 200 nautical miles from the coast. Once this agreement was reached, the remainder of the continental shelf negotiations largely concerned the complex question of the definition of the outer limit of the continental margin.

98. The legal regime of the continental shelf and the legal regime of the exclusive economic zone are found in two separate parts of the Convention adopted by the Third United Nations Conference on the Law of the Sea [1]. Article 56 (the basic article on the exclusive economic zone) makes clear that the coastal State has sovereign rights with respect to the resources of the seabed and subsoil within 200 nautical miles of the coast. That same article provides that those sovereign rights "shall be exercised in accordance with" the articles dealing with the continental shelf [2]. This provision was incorporated into the Convention for two reasons: to accommodate the refusal of the broad-margin States to accept any articles dealing with the economic zone that would infringe upon a continuous continental shelf regime from the territorial sea to the outer edge of the continental margin; and, to avoid any uncertainty regarding the continued application of existing laws and arrangements with respect to the continental shelf. Thus, Article 56 preserves as continental shelf all seabed areas between the outer limit of the 12-nautical mile territorial sea and the outer limit of the exclusive economic zone. Far from superseding or altering continental shelf doctrine, the seabed of the economic zone is expressly subject to it [3].

99. The entire deliberative process of the Third Conference leads inexorably to the conclusion that the essential nature of the continental shelf regime was not modified, although the geographic extent of that regime was expanded. The advent of the exclusive economic zone was not

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[1] Part V of the 1982 Convention [Articles 55-75] deals with the exclusive economic zone. Part VI of the 1982 Convention [Articles 76-85] deals with the continental shelf regime.

[2] "The rights set out in this article with respect to the sea-bed and subsoil shall be exercised in accordance with Part VI". Article 56(3) of the 1982 Convention.

[3] Although the distinction between the exclusive economic zone and the continental shelf within 200 nautical miles in many respects is of no practical import, there are certain significant exceptions. For instance, the fisheries regime of the economic zone, including its provisions concerning maximum sustainable yield and optimum utilization, does not apply to the sedentary species of the continental shelf, by virtue of the retention of continental shelf doctrine in the new Convention. *See* Article 77 of the 1982 Convention.

intended to impair any rights of the coastal State with respect to the continental shelf, including those associated with delimitation [1]. There is no basis for contending that the delegations, in negotiating the relationship between the continental shelf and the exclusive economic zone, even considered the question of delimitation, far from settling it in favor of equidistance [2]. The economic zone is a separate regime superimposed upon the continental shelf regime; it does not alter that underlying regime.

B. Canada Misreads the Court's Judgments As They Concern the Principle of Natural Prolongation

100. In their arguments before the Court, Libya and Tunisia attributed to the principle of natural prolongation a geological character that misconstrued the meaning of the Court's judgment in the *North Sea Continental Shelf* cases. The natural prolongation of which the Court spoke in 1969—one that is "[m]ore fundamental than the notion of proximity [3]"—certainly did not mean that delimitation should be based upon events occurring millions of years ago, i.e.; "the processes and events which gave rise to ... features on and beneath the earth's surface [4]", or upon the "analysis and classification of minerals, rocks, and fossils [4]". The Court's rejection of the Libyan and Tunisian arguments based upon geology has clarified the context in which the Court's discussion of natural prolongation in 1969 must be understood.

101. The Court's judgment in the *Tunisia/Libya* case calls attention to an important distinction between natural prolongation in its geological and geomorphological senses, and coastal-front extension, or natural prolongation in its geographical sense. The Court generally dismissed geological considerations as irrelevant to delimitation in that case:

> "what must be taken into account in the delimitation of shelf areas are the physical circumstances as they are today; that just as it is the geographical configuration of the present-day coasts, so also it is the present-day sea-bed, which must be considered [5]".

[1] Article 56(3) of the 1982 Convention. Moreover, Article 76 of the 1982 Convention (which defines the outer limits of the continental shelf) provides, in para. 10: "[t]he provisions of this article are without prejudice to the question of delimitation of the continental shelf between States with opposite or adjacent coasts."

[2] The relationship between the continental shelf and the economic zone, and that between the continental margin and the 200-nautical-mile limit, were settled before the extensive discussions regarding the articles on delimitation.

[3] *I.C.J. Reports 1969*, p. 31, para. 43.

[4] *I.C.J. Reports 1982*, p. 53, para. 60.

[5] *Ibid.*, p. 54, para. 61.

With respect to geomorphological features, the Court indicated that there is a limitation upon "their relevance to determine the division between the natural prolongations of the two States [1]". In order to govern a boundary delimitation, the geomorphological features must identify "such a marked disruption or discontinuance of the sea-bed as to constitute an indisputable indication of the limits of two separate continental shelves, or two separate natural prolongations [1]".

102. The Court reiterated its conclusions of 1969 and 1978 [2] concerning the validity and importance of the principle of coastal-front extension, or natural prolongation in a geographical sense [3]. The Court recalled that "exclusive rights over submarine areas belong to the coastal State", and that "[t]he geographic correlation between coast and submerged areas off the coast is the basis of the coastal State's legal title [4]". In support of this conclusion, the Court noted the statement in its 1969 judgment that the continental shelf is a legal concept in which "the principle is applied that the land dominates the sea [4]".

103. The importance of natural prolongation in its geographical sense, or coastal-front extension, had been recognized earlier by the Court in the *North Sea Continental Shelf* cases. The Canadian Counter-Memorial, however, attempts to infer, from the Court's limitation of the principle of natural prolongation in its geological and geomorphological senses, a denial of the broader concept of coastal-front extension, or natural prolongation in its geographical sense [5]. There is no basis, however, for such an inference.

104. In the *North Sea Continental Shelf* cases, the Court indicated that natural prolongation is the continuation or extension seawards of each State's coastal front. It is "the appurtenance of the shelf to the countries in front of whose coastlines it lies [6]". The Court stated:

> ". . . the principle is applied that the land dominates the sea; it is consequently necessary to examine closely the geographical configu-

[1] *I.C.J. Reports 1982*, p. 57, para. 66.

[2] *Aegean Sea Continental Shelf, Judgment, I.C.J. Reports 1978*, p. 36, para. 86.

[3] In the three leading cases, the Court and the Court of Arbitration found that there were not separate continental shelves and that natural prolongation in its geological or geomorphological senses was irrelevant in those cases.

[4] *I.C.J. Reports 1982*, p. 61, para. 73.

[5] The Canadian Memorial comes closer to a proper understanding in stating that "[n]atural prolongation, in its specifically legal sense, cannot simply be equated with geology and geomorphology." [Para. 293.]

[6] *I.C.J. Reports 1969*, p. 51, para. 95.

ration of the coastlines of the countries whose continental shelves are to be delimited [1]."

Canada errs when it discounts this geographical aspect of natural prolongation, or coastal-front-extension, in stating that natural prolongation has been replaced "from its former central role [2]" by distance.

105. The Court in the *North Sea Continental Shelf* cases did not relate the inequitable effects that sometimes may be brought about by the application of the proximity/equidistance method to the geological or geomorphological aspects of natural prolongation, so clearly subordinated by the Court in the *Tunisia/Libya* case. In fact, the Court's discussion of equidistance relates that method to the geography of the boundary area. Although pertinent parts of that judgment previously have been recalled in the United States Memorial, it is useful to restate certain of them here:

> "... the effect of the use of the equidistance method is to pull the line of the boundary inwards, in the direction of the concavity.... The effect of concavity could of course equally be produced for a country with a straight coastline if the coasts of adjacent countries protruded immediately on either side of it. In contrast to this, the effect of coastal projections, or of convex or outwardly curving coasts such as are, to a moderate extent, those of Denmark and the Netherlands, is to cause boundary lines drawn on an equidistance basis to leave the coast on divergent courses, thus having a widening tendency on the area of continental shelf off that coast.... It goes without saying that ... the equidistance method produces exactly similar effects in the delimitation of the lateral boundaries of the territorial sea of the States concerned. However, owing to the very close proximity of such waters to the coasts concerned, these effects are much less marked and may be very slight,—and there are other aspects involved, which will be considered in their place. It will suffice to mention here that, for instance, a deviation from a line drawn perpendicular to the general direction of the coast, of only 5 kilometres, at a distance of about 5 kilometres from that coast, will grow into one of over 30 at a distance of over 100 kilometres [3]".
>
> . . . .
>
> "It must next be observed that, in certain geographical circumstances which are quite frequently met with, the equidistance

[1] *I. C. J. Reports 1969*, p. 51, para. 96. In making this statement, the Court was speaking of both the continental shelf and the contiguous zone—the outer limit of which is determined by distance.

[2] Canadian Counter-Memorial, para. 471.

[3] *I.C.J. Reports 1969*, pp. 17-18, para. 8.

method, despite its known advantages, leads unquestionably to inequity, in the following sense:

> (a) The slightest irregularity in a coastline is automatically magnified by the equidistance line as regards the consequences for the delimitation of the continental shelf. Thus *it has been seen in the case of concave or convex coastlines that if the equidistance method is employed, then the greater the irregularity and the further from the coastline the area to be delimited, the more unreasonable are the results produced.* So great an exaggeration of the consequences of a natural geographical feature must be remedied or compensated for as far as possible, being of itself creative of inequity [1]."

These conclusions of the Court are unrelated to natural prolongation in its geological and geomorphological senses. Rather, they refer expressly to coastal configuration, i.e., to geography.

106. The Court of Arbitration in the *Anglo-French Arbitration* noted that there was more to natural prolongation than its geological and geomorphological aspects [2]. Following that award, Professor Bowett commented: "it is likely that in the future 'natural prolongation' will be seen as referring to geographical configurations rather than geological factors [3]". Judge *ad hoc* Jiménez de Aréchaga, in his separate opinion in the *Tunisia/Libya* case, advanced a similar geographical conception of natural prolongation:

> "... 'natural prolongation' is a concept divorced from any geomorphological or geological requirement and ... merely expresses the continuation or extension seawards of each State's coastal front. It means that the *continuation of the territory into and under* the sea has to be based on the actual coastline, as defined by the land frontiers of the States in question, since it is from the actual coastline of each State that the land territory continues into and under the sea. Consequently, the basic corollary of 'natural prolongation' is the need to avoid the 'cutting-off' of areas 'situated directly before that front' [4]".

[1] *I.C.J. Reports 1969*, p. 49, para. 89. [Emphasis added.]

[2] *Decisions*, pp. 51-52, paras. 77-79; p. 92, para. 191; and p. 93, para. 194.

[3] D. W. Bowett, "The Arbitration between the United Kingdom and France concerning the Continental Shelf Boundary in the English Channel and South-western Approaches", in 1978 *British Yearbook of International Law*, 1979, pp. 1, 15.

[4] *I.C.J. Reports 1982*, Separate Opinion of Judge *ad hoc* Jiménez de Aréchaga, p. 116, para. 58. The Court refers to the *continuation* of the land territory *into* and *under* the sea at *I.C.J. Reports 1969*, p. 31, para. 43.

107. Except in those rare instances where there are two separate continental shelves, this geographical aspect of natural prolongation, or coastal-front extension, lies at the heart of coastal-State jurisdiction over maritime areas, with respect both to the continental shelf and to fisheries zones. It expresses the determinative nature of the relationship between the coastal front and the sea, the basis for all entitlement to maritime areas. This geographical aspect gives rise to the equitable principle that a boundary must respect the relationship between the coasts of the parties and the maritime areas in front of those coasts. Contrary to Canada's position, this relationship, whether termed natural prolongation in its geographical sense, or coastal-front extension, remains a fundamental principle of delimitation.

SECTION 3. Canada Asserts That the Single Maritime Boundary Is to Be Established in Effect upon the Basis of an Impermissible *ex aequo et bono* Determination by the Court of an Equitable Share of the Resources in the Boundary Area

108. Canada asserts that "[t]he essential purpose of the exclusive economic zone, as the name implies, is an economic one *rooted in the special dependence* of coastal States upon the resources off their coasts [1]". On that basis, Canada concludes that "because economic considerations are central to the basic purpose of the new forms of maritime jurisdiction . . . it follows that a significant and established economic dependence upon the resources of the disputed area is a factor that should be given a special weight [2]". Canada argues that, if the inhabitants along a coastline are not dependent upon the adjacent marine resources, that coastline may be disregarded [3]. Finally, while openly disavowing the relevance of relative wealth as a factor in delimitation, Canada nonetheless consistently invokes such a consideration in support of its position. Nothing in the law supports these conclusions or the premises upon which they are founded. The International Court of Justice, to the contrary, has held that

[1] Canadian Counter-Memorial, para. 579. [Emphasis added.] *See also* Canadian Memorial, para. 311, and Canadian Counter-Memorial, para. 553.

[2] Canadian Counter-Memorial, para. 553.

[3] For instance, Canada argues:

> ". . . in a case of this nature it ceases to be appropriate to identify the relevant coasts and to assess their importance in a purely geometrical way, in terms of their abstract spatial characteristics, without regard to their actual reliance upon the resources of the area concerned".

Canadian Memorial, para. 317. Elsewhere, Canada states:

> ". . . geography in its socio-economic as well as physical aspects should properly have a bearing on the identification and treatment of the coastal areas that are relevant to Georges Bank . . .".

Canadian Memorial, para. 369; *see also* Canadian Counter-Memorial, para. 582.

considerations of economic dependence and relative wealth are irrelevant to the delimitation of maritime boundaries [1].

109. It is not economic dependence, but geography alone, that determines the rights of coastal States to a 200-nautical-mile zone. The geographical relationship between the coast and the sea, and not economic dependence, is the basis of title. The existence of the coast, independent of any economic exploitation, is the sole ground for the recognition of exclusive jurisdictional rights in the 200-nautical-mile zone. Economic considerations may not serve as a basis for ignoring a coast that is otherwise relevant to delimitation, nor may such considerations enhance the importance of one coast vis-à-vis another.

110. These points may be shown in both positive and negative contexts. Coastal States are entitled to claim rights over a 200-nautical-mile zone regardless of whether their residents previously have exploited, or have any intention of exploiting in the future, the resources of the zone, or whether the population depends at all on the fishery resources for nutrition. Conversely, some communities that were relying economically upon certain fisheries are deprived completely of access to their traditional grounds by the introduction of the exclusive economic zone. The Convention adopted by the Third United Nations Conference on the Law of the Sea has not recognized historic or traditional fishing rights, except as a relevant consideration for the coastal State to take into account in the allocation of any resources that it does not intend to catch [2]. Indeed, the Convention does not even contemplate a "phasing-out" period, as had been advocated at the Second United Nations Conference on the Law of the Sea [3].

111. The terms of the Convention, like the general principles of international law relating to the exclusive fishing zone, provide that the coastline is the starting point for title to, and delimitation of, the exclusive economic zone. There is no legal authority either for barring or for favoring the claim of a coastal State to such a zone on the basis of the use that its inhabitants make of the resources of that zone. Certainly, there is no requirement that the inhabitants must depend upon or otherwise use those resources for their livelihood in order for the coastal State to be entitled to a 200-nautical-mile-zone.

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[1] *I.C.J. Reports 1982*, pp. 77-78, para. 107.

[2] Article 62(3) of the 1982 Convention.

[3] Canada and the United States jointly offered two proposals at the Second United Nations Conference on the Law of the Sea. U.N. Doc. A/CONF.19/C.1/L.10 and A/CONF.19/L.11. Both of these proposals would have established a period during which distant-fishing nations, whose traditional fishing rights were to be eliminated, could adjust their fishing activities to the new jurisdictional order.

112. Considerations of economic dependence and relative wealth cannot be the basis for a delimitation determinative of sovereign rights and jurisdiction, because such considerations are variable and speculative. As the United States said in its Counter-Memorial:

> "The adjudication of a boundary between States, whether on land or at sea, is intended to be a permanent delimitation. To the extent possible, such an adjudication should consider circumstances that are stable and predictable. Considerations of economic dependence and relative national wealth and poverty are variable and speculative. The facts and the analysis involved in any such comparisons are susceptible to many different interpretations. Moreover, national fortune or calamity or other circumstances could at any time tilt the scale one way or the other. Taking such considerations into account is likely to discourage States from submitting boundary disputes to adjudication, thereby undermining the peaceful settlement of disputes. As the Court in the *Tunisia/Libya* case correctly concluded, questions of economic dependence and relative wealth are extraneous and irrelevant to the delimitation of a maritime boundary [1]."

113. It is no answer to assert, as Canada does, that, although "economic interests in the abstract [2]" are extraneous to delimitation, economic dependence associated with established patterns of fishing is central to delimitation. Such considerations of economic dependence are no less variable and speculative than the considerations that the Court in the *Tunisia/Libya* case found to be extraneous and irrelevant [3]. Moreover, in this case, Canada maintains that economic dependence at the regional and even local level of a State is central to delimitation, not dependence at the national level, as argued by Tunisia. Such regional and local economies are, if anything, more variable than national economies, and thus predicting the future of such economies is more speculative than doing so on a national level [4].

[1] United States Counter-Memorial, para. 191.

[2] Canadian Memorial, para. 316.

[3] *See* United States Counter-Memorial, paras. 182-186.

[4] Even if economic dependence were relevant to delimitation of the single maritime boundary in this case, a proposition that the United States rejects, such considerations do not support a Canadian claim to any part of Georges Bank. The contribution of fishing on Georges Bank to employment and to the gross domestic product either in Canada or in Nova Scotia is negligible. [United States Counter-Memorial, Annex 4, Vol. III. paras. 10-20.] Although, in recent years, this fishing has been significant to a few communities in southwest Nova Scotia, each of those communities has practical alternatives to fishing on Georges Bank. Virtually all the scallops and most of the groundfish taken by Canada from Georges Bank are landed by large, corporate-owned vessels. These vessels are based in a handful of larger ports, primarily in the Lunenburg-Riverport complex close to Halifax, more than 155 nautical miles from any part of Georges Bank. It would appear

(footnote continued on next page)

114. As a matter of law, a maritime area is not awarded to a State to which it does not appertain geographically in order to protect recent patterns of fishing by that State. To fix boundaries upon the basis of socio-economic conditions, especially at the regional or local level, would convert the judicial process into an impermissible apportionment *ex aequo et bono* of shares varying from year to year and from generation to generation, an approach that has been rejected firmly by this Court and by arbitral tribunals.

SECTION 4. Canada Misapplies Article 6 of the Continental Shelf Convention

115. Canada's determination to overturn established law is reflected in its misapplication of Article 6 of the Continental Shelf Convention. Although Canada alleges that the United States "discounts the relevance of Article 6 ... to the present proceedings [1]", Canada never enunciates clearly its own view of Article 6. In fact, in light of Canada's emphasis upon events at the Third United Nations Conference on the Law of the Sea, it appears that it is Canada that has undervalued the relevance of Article 6 to the present case.

116. The United States set forth its position in its Memorial:

> "The United States and Canada are not parties to any Convention establishing the law applicable, as such, to the question before this Court. The United States and Canada are parties to the 1958 Convention on the Continental Shelf, and Article 6 of that Convention is relevant to this proceeding as a source of principles and rules for delimitation of the continental shelf; however, the Continental Shelf Convention is not determinative in the delimitation of a single maritime boundary [2]."

(footnote continued from the previous page)
that these vessels could switch their activities to rich Canadian fishing grounds on the Scotian Shelf or off Newfoundland. [United States Counter-Memorial, Annex 4, Vol. III, paras. 25-27 and 55-59.] Landings of groundfish from Georges Bank by small vessels are concentrated largely in a handful of small ports located in and adjacent to Cape Sable Island, at the far southwest tip of Nova Scotia. Even in those communities, landings from Georges Bank do not contribute substantially to the economy. *See* Annex 32 for a critique of Canada's discussion of its "small vessel" fleet and small fish processing plants in southwest Nova Scotia. In any event, alternatives to fishing on Georges Bank exist in the economy of Nova Scotia at large, including the vast fishing grounds to the north and opportunities associated with Nova Scotia's developing offshore oil and gas industry. [United States Counter-Memorial, Annex 4, Vol. III, paras. 60-68.] For a general rebuttal *of the facts submitted by Canada in support of its economic dependence argument, see* Annex 31.

[1] Canadian Counter-Memorial, para. 43.

[2] United States Memorial, para. 165.

The United States believes that the delimitation in this case should be consistent with the principles enunciated in Article 6. The United States does not believe that the emergence of 200-nautical-mile zones in international law has altered radically the rules of delimitation, as Canada suggests [1].

117. Canada properly interprets Article 6 at one juncture in its Counter-Memorial:

> "... the true effect of the combined equidistance-special circumstances rule in Article 6 is that the equidistance method is to be used in those cases, and only in those cases, where it produces an equitable result in the light of the geographical and other circumstances [2]".

Canada proceeds, however, to afford little credence to either the words or the spirit of Article 6. Its approach to Article 6 omits any analysis of the special circumstances of the Gulf of Maine area, and instead merely asserts that, in the emergence of the 200-nautical-mile zone, "new principles [3]"—"the distance principle [4]" and the "principle of equality [5]"—and economic dependence likewise have emerged. In this fashion, Canada seeks to elevate the role of equidistance beyond that contemplated by Article 6.

118. As it previously and properly has been interpreted, Article 6 is not *an inflexible provision that accords any preference* to the equidistance method. Special circumstances are not to be construed narrowly, nor is any onus of proof imposed upon the State claiming that they exist. Interpretations to the contrary were found in the rigid arguments set forth by the Netherlands and Denmark that were rejected by the Court in the

[1] The United States Exclusive Economic Zone Proclamation of 10 March 1983 restates the words of the Truman Proclamation:

> "... where the maritime boundary with a neighboring State remains to be determined, the boundary of the Exclusive Economic Zone shall be determined by the United States and the State concerned in accordance with equitable principles".

Proclamation by the President of the United States Establishing the Exclusive Economic Zone, 10 March 1983. United States Counter-Memorial, Annex 28, Vol. V.

The Canadian Counter-Memorial, at para. 8 and n. 3 thereto, implies that this Statement may differ from international law. In the United States view, the Statement is wholly consistent with international law and the position set forth by the United States in this case.

[2] Canadian Counter-Memorial, para. 551.

[3] Canadian Memorial, para. 285.

[4] Canadian Counter-Memorial, Part III, Chapter III, Section II. A and B.

[5] Canadian Counter-Memorial, Part III, Chapter III, Section II.

North Sea Continental Shelf cases, and in the opposition to the 1958 Convention, in general, by some States. These two factors led the Third United Nations Conference on the Law of the Sea, from the outset, to seek a wording different from that of Article 6, irrespective of its proper legal meaning.

119. In the view of the United States, the Court of Arbitration in the *Anglo-French Arbitration* interpreted Article 6 properly. The sole difference that the Court of Arbitration found between customary law and Article 6 was that, when Article 6 applies, equidistance "ultimately possesses an obligatory force which it does not have in the same measure under the rules of customary law [1]". The Court of Arbitration stated:

> ". . .the combined character of the equidistance-special circumstances rule means that the obligation to apply the equidistance principle is always one qualified by the condition 'unless another boundary line is justified by special circumstances' [1]".

120. The decision in the *Anglo-French Arbitration* established that: (1) "the combined 'equidistance-special circumstances rule', in effect, gives particular expression to a general norm that, failing agreement, the boundary between States abutting on the same continental shelf is to be determined on equitable principles [1]"; (2) "the rôle of the 'special circumstances' condition in Article 6 is to ensure an equitable delimitation [1]"; (3) the special circumstances feature of Article 6 "underlines the full liberty of the Court in appreciating the geographical and other circumstances relevant to the determination of the ... boundary [2]"; (4) there is no onus, or burden of proof, upon the party claiming special circumstances [3]; (5) "under Article 6 it is the geographical and other circumstances of any given case which indicate and justify the use of the equidistance method as the means of achieving an equitable solution rather than the inherent quality of the method as a legal norm of delimitation [4]", and (6) "the rules of customary law are a relevant and even essential means both for

[1] *Decisions*, p. 48, para. 70.

[2] *Decisions*, p. 48, para. 69.

[3] *Decisions*, p. 48, para. 68.

[4] *Decisions*, pp. 48-49, para. 70.

interpreting and completing the provisions of Article 6 [1]. As the Court of Arbitration found: "in the circumstances of the ... case, the rules of customary law lead to much the same result as the provisions of Article 6 [2]".

[1] *Decisions*, p. 50, para. 75. At one time, Canada fully recognized the correct effect of the *Anglo-French Arbitration*. At the time Canada notified the United States of its intention to expand its claim in the Gulf of Maine area, Canada stated that the Award had:

> "... clarified the scope and application of the principle of 'special circumstances' and its relation to the principle of equidistance under Article 6 of the 1958 *Geneva Convention on the Continental Shelf*, as well as the scope and application of 'equitable principles' and their relation to the principle of equidistance in customary international law". [Note No. GNT-067 from the Dept. of External Affairs to Embassy of the United States, 3 Nov. 1977. United States Memorial, Annex 69, Vol. IV.]

In the 14 October 1977 Canadian Legal Statement, Canada took the position that the *Anglo-French Arbitration* made clear that the equidistance method was subordinate to equitable principles. Canada regarded the Court of Arbitration as having equated special circumstances with equitable principles and as having refuted the notion that presumptions operate in favor of the equidistance method or that there was an onus of proof on the party alleging special circumstances.

[2] *Decisions*, p. 47, para. 65.

CHAPTER II

THE EQUITABLE PRINCIPLES PROPOSED BY THE UNITED STATES ARE APPLICABLE IN THIS CASE

121. One difference between the Parties regarding the law applicable to this case concerns the relationship between equitable principles and relevant circumstances.

122. Canada acknowledges expressly that it "has emphasized the indivisibility of equitable principles from the relevant circumstances of the case[1]". As a result, Canada makes no effort to identify equitable principles as such. Rather, it merely elicits the circumstances that it argues require resort to the equidistance method, adds the notions of proximity and claims of economic dependence, and, not surprisingly, finds that the resulting mixture confirms its predetermined views.

123. The United States maintains that the law requires a more disciplined and balanced approach. The United States believes that, if the Fundamental Rule requires the application of equitable principles, those principles first must be identified to provide a context in which to assess the relevant circumstances. The United States has identified and applied four equitable principles in this case:

— The boundary must respect the relationship between the coasts of the Parties and the maritime areas in front of those coasts;

— The boundary should facilitate resource conservation and management;

— The boundary should minimize the potential for international disputes; and

— The boundary must take account of the relevant circumstances in the area.

These four principles are applicable to the delimitation of the continental shelf, the 200-nautical-mile resource zone, and the single maritime boundary in the Gulf of Maine area.

SECTION 1. The First United States Principle: the Boundary Must Respect the Relationship Between the Coasts of the Parties and the Maritime Areas in Front of Those Coasts

124. This equitable principle refers to the relationship between the land and the sea. It is a formulation of the principle of coastal-front extension,

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[1] Canadian Counter-Memorial, para. 473.

or of natural prolongation in its geographical sense. Many of the statements in the Canadian Memorial and Counter-Memorial concerning the alleged primacy of proximity are at odds with the relationship between the coasts of the Parties and the maritime areas in front of those coasts.

125. In connection with this first principle, the United States has identified and discussed in its Memorial and Counter-Memorial three subsidiary delimitation principles: nonencroachment, proportionality, and natural prolongation.

A. NONENCROACHMENT

126. Canada does not deny the relevance in this case of the principle of nonencroachment (which is, in effect, a means of determining whether the principle of coastal-front extension has been respected). Canada instead attacks the application of the principle by the United States, on the basis of arguments that are but other means of advancing an equidistant line. For example, in its devotion to proximity, Canada states that "nonencroachment generally precludes any State from exercising jurisdiction over sea areas that are substantially closer to another State [1]".

127. Canada also maintains that the principle of nonencroachment has application only to areas "close to" the coast [2]. In support, Canada refers to paragraph 8 of the judgment in the *North Sea Continental Shelf* cases, where the Court noted that equidistant lines in a situation such as the North Sea would converge "at a relatively short distance from the coast [3]", thereby encroaching upon the extension of the coastal front of the Federal Republic of Germany. It readily can be seen that this consideration does not diminish the importance of nonencroachment in this case. The "relatively short distance" involved in the North Sea was approximately 100 nautical miles [4]. As the United States showed at Figure 28 of

(112)

[1] Canadian Counter-Memorial, para. 485.

[2] Canadian Counter-Memorial, para. 482. Canada also refers to interventions at the 1958 Law of the Sea Conference by Peru, Lebanon, and Brazil, noted in the separate opinion of Judge *ad hoc* Jiménez de Aréchaga in the *Tunisia/Libya* case. [Canadian Counter-Memorial, para. 482.] In those interventions, references were made to areas "close to" the coast. Canada's reliance upon those statements is misplaced, however, as they were made in response to a proposal that anyone could explore and exploit the continental shelf beyond the territorial sea. Peru, Lebanon, and Brazil responded to that proposal by stressing the security interest of the coastal State in installations close to its coast beyond the territorial sea. Their statements had nothing to do with nonencroachment as a delimitation principle.

[3] *I.C.J. Reports 1969*, p. 17, para. 8.

[4] In the *North Sea Continental Shelf* cases, the equidistant lines converged at point A of the 1966 Denmark-Netherlands boundary agreement. That point is 100 nautical miles from the Federal Republic of Germany-Denmark territorial-sea boundary terminus, 92 nautical miles from the Federal Republic of Germany-Netherlands territorial-sea boundary terminus, and 133 nautical miles from the Federal Republic's coastline in the back of the coastal concavity (measured from Cuxhaven).

its Counter-Memorial, the point of convergence of two equidistant lines in a coastal concavity such as the Gulf of Maine occurs approximately at the midpoint of the line across the mouth of the concavity. The distances involved in the Gulf of Maine area are comparable to those in the North Sea [1]. The Court's reference to "close to" must be understood in its context. The principle of nonencroachment was violated by the equidistant lines in the *North Sea Continental Shelf* cases, and necessarily the same must hold true here [2].

128. Canada has proffered no argument that justifies modification of the principle of nonencroachment. That principle, being equitable in nature, is not rigid. It is to be applied to avoid "cutting off" a coast from the maritime area lying in front of it. In a coastal concavity such as the Gulf of Maine, the equidistant line would cut off the seaward extension of the United States coast at Maine and New Hampshire. The cut-off effect begins close to the coast, continues to the closing line of the concavity, and is further accentuated beyond. Inasmuch as the principle of nonencroachment requires an abatement of the equidistant line close to the coast to avoid the cut-off effect, it follows *a fortiori* that a more pronounced abatement of the escalating cut-off effect is required as the boundary (31) proceeds seaward. Figure 5 provides a relevant example. Because of these considerations, in both the North Sea and the Bay of Biscay, the Parties terminated the use of the equidistant line well within the coastal concavity, in accordance with the principle of nonencroachment [3]. *See* (114)(117) Figures 31 and 36 of the United States Counter-Memorial.

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(109) [1] The equidistant lines shown at Fig. 22 of the United States Counter-Memorial converge at a point 152 nautical miles from the United States-Canada international boundary terminus and 139 nautical miles from the point where the Maine-New Hampshire border meets the sea.

[2] This geographic truth cannot be distinguished on the grounds that, in the *North Sea Continental Shelf* cases, three States were involved, rather than two. As the Court of Arbitration stated in the *Anglo-French Arbitration:* "[a]lthough the Court's observations on this aspect of 'adjacent States' situations were directed to the particular context of a concave coastline formed by the adjoining territories of three States, they reflect an evident geometrical truth and clearly have a more general validity." *Decisions,* p. 55, para. 86.

[3] In the North Sea, the distance from the coast to the last equidistant point on the Federal Republic-Denmark boundary is 15.1 per cent of the distance from the coast to the endpoint of the boundary. With respect to the Federal Republic-Netherlands boundary, the corresponding distance amounts to 22.6 per cent of the total length of the line. In the Bay of Biscay, the distance from the land boundary to the last equidistant point on the agreed continental shelf boundary is 44 per cent of the distance from the land boundary to the point where an equidistant line would cross the line across the mouth of the Bay of Biscay.

B. PROPORTIONALITY

129. Proportionality is a test of equity that is required by the "fundamental principle of ensuring an equitable delimitation [1]". The proportionality test is also geographical; it is derived from the principle that the boundary must respect the basic relationship between the land and the sea. The test is expressed in geographical terms, i.e., in terms of the need to achieve a reasonable degree of proportionality between the lengths of the relevant coasts and the relevant maritime areas appertaining to such coasts. For this reason, non-geographical factors, such as the use of the area by the parties, the marine environment, and, in particular, socio-economic considerations, are not relevant to the proportionality test. Furthermore, because the delimitation of the single maritime boundary must be equitable and must respect the relationship of the land and sea, the proportionality test is as applicable to the single maritime boundary as it is to the continental shelf and the 200-nautical-mile exclusive fishing zone.

130. Proportionality is not a method by which the boundary is to be determined, because any number of lines in the relevant area may meet the test of proportionality. Rather, the test is applied to a particular result otherwise determined by the application of the relevant law to the circumstances of the case. If that result reflects a reasonable proportion between the relevant coasts and the extent of the area left to each State, that line then meets the test and is an equitable solution.

131. For Canada, the proportionality test is not connected with relevant geographical features [2]. Canada instead has taken the view that proportionality:

> ". . . transcends the purely geographical dimension and requires that the area to be allocated to each of the parties should reflect all the relevant circumstances of the case, so that the resulting entitlements are proportionate in the broadest sense of the word [3]".

This view, which for Canada includes an economic dimension, has no basis in the proportionality test that has evolved in the jurisprudence of the Court and of arbitral tribunals. Indeed, the Canadian view appears to be but another argument suggesting "a sharing out of resources", or an impermissible judgment *ex aequo et bono*.

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[1] *I.C.J. Reports 1982*, pp. 75-76, para. 103.

[2] Canada's statement that the role of the proportionality test "is clearly less fundamental where title is based on a specific distance from the coast" [Canadian Counter-Memorial, para. 188.] implicitly acknowledges that a rule of proximity often would produce disproportionate results. This statement is further evidence of Canada's rejection of the traditional principles of delimitation.

[3] Canadian Counter-Memorial, para. 487.

C. Natural Prolongation

132. The distinction between natural prolongation in its geological and geomorphological senses and natural prolongation in its geographical sense, or coastal-front extension, already has been discussed. Canada disregards this latter aspect of natural prolongation. The Parties agree that there is not so significant a disruption in the continental shelf in the Gulf of Maine area as to identify separate natural prolongations in a geological or geomorphological sense [1]. Both Parties also recognize that, in the words of the *Tunisia/Libya* case, "geomorphological configurations of the sea-bed . . . may be taken into account for the delimitation, as relevant circumstances characterizing the area [2]". In the view of the United States, the Northeast Channel is such a geomorphological configuration.

SECTION 2. The Second United States Principle: the Boundary Should Facilitate Resource Conservation and Management

133 The facilitation of resource conservation and management is an equitable principle applicable in this case. This principle is in consonance with the underlying purposes of both the continental shelf and the 200-nautical-mile fisheries zone. In application of this principle, the United States believes that the "single maritime boundary should avoid, whenever possible, dividing between two governments the responsibility for conserving and managing a resource [3]".

134. Canada's focus upon economic dependence causes it both to misconstrue the United States arguments concerning resource conservation and management and to misinterpret the law bearing upon these issues. Canada attacks the principle proposed by the United States, stating that "[t]he recent evolution of the principles of coastal State jurisdiction over fisheries completely undercuts the premises of the United States argument [4]". In Canada's view, the "essential purpose of the extended zones lies in coastal State dependence [5]". Canada asserts:

> "The 'equitable principles' advanced by the United States are defective in their failure to give any recognition to [the] factor of

[1] Canadian Counter-Memorial, para. 168; United States Counter-Memorial, para. 35. At the same time, Canada inconsistently intimates that there may be discontinuities in the shelf. *See, e.g.*, Canadian Counter-Memorial, para. 171. Annex 27 to this Reply is a critique of Canada's analysis of the geology in the Gulf of Maine area.

[2] Canadian Memorial, para. 310; *I.C.J. Reports 1982*, p. 58, para. 68.

[3] United States Memorial, para. 247.

[4] Canadian Counter-Memorial, para. 513.

[5] Canadian Counter-Memorial, para. 510.

present and future economic dependence—the main reason why the extension of coastal State fisheries jurisdiction was adopted . . . in the first place [1]".

A coastal State's entitlement to a 200-nautical-mile resource zone, however, is not determined by the degree of economic dependence it may have upon the resources of the area [2]. Rather, it is determined by the relationship of the coast to the maritime areas in front of the coast.

135. Canada objects to the equitable principle of resource conservation and management on other grounds. Canada asserts that the United States position is: (1) "monopolistic"; (2) "misconceived . . . for the simple reason that the law provides a quite different solution to the problem of shared natural resources [3]"; (3) not supported by stock management practices; (4) unworkable because of the complexity of nature; and, (5) not in keeping with the practice of the United States, Canada, and other States. Each of these Canadian arguments is unfounded.

136. First, Canada assumes that, as a matter of law, jurisdiction over the resources of Georges Bank already is shared. Canada argues that international law "simply assumes the existence of transboundary natural resources and prescribes international cooperation in their management [4]". That is in fact one of the very issues before the Court. It is for the Court to determine a boundary, and thereby the respective jurisdictions of the Parties, based upon principles and rules of law. Some boundaries in the Gulf of Maine area would facilitate resource conservation and management, whereas others would hinder that goal. To suggest that the Court should seek to facilitate resource conservation and management has nothing to do with "monopoly ".

137. Second, Canada argues that conservation and management by agreement, where all Parties have a veto, is a better method for conserving and managing resources than management of unit stocks by a single State. Canada's denial that the Law of the Sea Conference sought to unify responsibility for management of an entire stock in a single State, where possible, rings hollow. The provisions regarding anadromous and catadromous species are clear examples of the intentions of the

[1] Canadian Counter-Memorial, para. 511.

[2] Canada's emphasis upon economic dependence in fact is inconsistent with the principle of conservation and management. Acceptance of Canada's arguments regarding the role that its recent fishing activities should play in this boundary delimitation well might encourage States or their nationals to expand their fishing efforts in order to enhance their position in subsequent negotiations or adjudications. The objectives of restraint inherent in the principle of conservation thereby would be defeated.

[3] Canadian Counter-Memorial, para. 501.

[4] Canadian Counter-Memorial, para. 502.

Conference [1]. Canada seeks to support its denial by citing the exceptions to the general rule of unilateral coastal-State management found in the Convention [2].

138. Canada's argument overlooks the fact that the extension of fisheries jurisdiction to 200 nautical miles and the development of the exclusive economic zone constituted in part a response to the difficulties engendered by joint management of resources. These difficulties are documented by Canadian working papers submitted at the Conference [3].

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[1] *Anadromous species are dealt with in Article 66 of the* 1982 *Convention*, and catadromous species are dealt with in Article 67 of the 1982 Convention.

[2] Canadian Counter-Memorial, para. 514. Canada's argument against "single-State management" is based upon two articles of the 1982 Convention. Article 63 of the 1982 Convention, upon which Canada relies, can be described only as a standard hortatory provision calling for cooperation in the management of transboundary resources. The operative language of both paragraphs of that provision contains the phrase "shall seek ... to agree upon the measures necessary". Similarly, Article 61, para. 2, according to Canada, "provides for cooperation between the coastal State and competent international organizations, 'whether subregional, regional or global' ". [Canadian Counter-Memorial, para. 514.] The Canadian Counter-Memorial fails to note that this proviso is preceded by the words "as appropriate", making it a matter of discretion for the coastal State. Only in such words and circumstances does the Convention adopted by the Third United Nations Conference on the Law of the Sea call for cooperation in fisheries conservation and management.

[3] An early Canadian working paper for the Law of the Sea Conference defended the need to concentrate authority in the coastal State:

> "In the view of the Delegation of Canada, the coastal state should have the authority to determine the allowable yield for the various stocks of coastal species falling under its management ... *It is because international experience has demonstrated the difficulty of reaching consensus on particular measures needed on the basis of scientific data that it is proposed that the coastal state should have authority to impose a decision where consensus is not possible .*"

Working Paper on Management of the Living Resources of the Sea, submitted by Canada, Report of the Committee on the Peaceful Uses of the Sea-Bed and the Ocean Floor Beyond the Limits of National Jurisdiction, pp. 169-170, U.N. Doc. A/AC. 138/ SC. II/L.8. [Hereinafter *Canadian Working Paper.*] [Emphasis added.] United States Memorial, Annex 91, Vol. IV. Canada advocated a greater role for single-State management than the Conference was prepared to accept. For example, Canada proposed that coastal-State exclusive fishery jurisdiction be extended to cover the entire range of "straddling stocks ", which occur both in the exclusive economic zone and in areas beyond, as well as immediately adjacent to it:

> "The existing ICNT article dealing with this subject already recognizes that the coastal state concerned and the states fishing for such stocks in the

(footnote continued on next page)

The new Law of the Sea Convention sets forth a general rule of exclusive management of fisheries by a single State whenever possible. Regional organizations are accorded a subordinate and advisory role with respect to conservation [1], and no role at all with respect to allocation [2]. Even in the case of highly migratory, anadromous, and catadromous species, and stocks that range beyond the limits of coastal-State jurisdiction, the Convention calls for the identification of a single State that logically can exercise primary management authority—as in the case of anadromous and catadromous species—where it is possible to do so. Far from confirming a preference for joint management, a basic theme of the exclusive economic zone is management by a single State wherever possible.

139. Third, in its Memorial and Counter-Memorial, Canada attacks the very concept of stock management, although the practice of managing fisheries by stocks has been recognized and applied for many years. Canada repeatedly has advocated in international fora the principle of stock management. For example, in the recent Law of the Sea Conference, Canada stated:

> "*(1) Stocks should be managed as individual units.*
>
> Few species form homogeneous mixtures of individuals throughout the species' range. Rather these individuals tend to be grouped into separate populations or stocks, often associated with particular oceanographic features, such as current systems or distinct shelf areas, with little interchange between the separate groups. Each group will have its own particular set of biological characteristics such as growth rate or mortality rate, dependent on its genetic makeup and the environment which it inhabits. Each will respond to

(footnote continued from the previous page)

adjacent area are to consult with a view to agreeing upon the measures necessary for the conservation of these straddling stocks in the adjacent area. *However, given the serious conservation problems which have already begun to emerge, as a result of either nonexistent or ineffective management controls, it is necessary to review the adequacy of this approach*". Working Paper Submitted by the Delegations of Argentina and Canada, "The Special Case of Fish Stocks which occur both within the Exclusive Economic Zone and in an Area beyond and immeditely adjacent to it", submitted at the Second Part of Ninth Sesson of UNCLOS III, Geneva, 1980, p. 3. [Emphasis added.] United States Memorial, Annex 91, Vol. IV.

[1] *See* Article 61 of the 1982 Convention.

[2] *See* Article 62 of the 1982 Convention.

fishing pressure in a different way, depending on the size of the particular stock and its unique characteristics [1]".

140. In the Gulf of Maine area, three *international fisheries* organizations have played a role in fisheries management: the North American Council on Fisheries Investigations (NACFI), the International Commission for the Northwest Atlantic Fisheries (ICNAF), and the Northwest Atlantic Fisheries Organization (NAFO). Each has recognized and used the stock division at the Northeast Channel [2]. For its domestic practice since the extension of fisheries jurisdiction to 200 nautical miles in 1977, Canada has managed by stocks, distinguishing between those found on the Scotian Shelf and those found on Georges Bank [3].

141. Indeed, in the Northwest Atlantic Fisheries Organization, Canada continues to seek greater rights over coastal stocks seaward of 200 nautical miles [3]. In so doing, Canada evidences its dissatisfaction with the effects of arbitrary lines upon stock management, as it previously did at the Third United Nations Conference on the Law of the Sea. Nevertheless, in this case, and contrary to the goals of its policies elsewhere, Canada asks the Court to adopt an arbitrary line without regard to the principle of resource conservation and management. Canada's boundary claim countenances a Canadian "monopoly" in the management of stocks on the Scotian Shelf, off the Nova Scotia coast, but advocates joint management of the stocks of the Gulf of Maine Basin and Georges Bank, off the New England coast.

142. Fourth, Canada asserts that "nature is too complex to be made to conform to the simplicity of a jurisdictional line [4]". Nature is indeed complex, but the major stock divisions in the Gulf of Maine area have been recognized for many years. A boundary that recognized these natural stock divisions would have divided Georges Bank from Browns Bank in the 1920s and 1930s (witness the NACFI line); it would have done so again from the 1940s into the 1970s (witness the ICNAF line); and, it should do so now. The natural stock divisions have remained the same for as long as fisheries data have been recorded.

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[1] *Canadian Working Paper*, p. 172. [Emphasis in original.] United States Memorial, Annex 91, Vol. IV.

(24)(25) (102)(103) [2] United States Memorial, Figs. 8 and 9; United States Counter-Memorial, Figs. 14 and 15.

[3] Annex 20 provides further examples of the application of the concept of a stock in Canadian fishery management and theory.

[4] Canadian Counter-Memorial, para. 524. In its pleadings, Canada obscures the distinctions among the separate and identifiable oceanographic and ecological regimes in the Gulf of Maine area by focusing upon secondary considerations. Annexes 23, 24, and 25 are critiques of Canada's analysis of the marine environment of the Gulf of Maine area.

143. Fifth, Canada raises a number of minor points concerning State practice that are designed to obscure the importance of the principle of resource conservation and management. In Figures 39 and 40 of its Counter-Memorial, Canada depicts applications that carry the principle to an extreme. In addition to the fact that Canada furnishes no scientific support for these figures, there is no evidence that the distributions of the resources shown are associated with a clearly defined feature such as a fishing bank. Indeed, Canada provides examples that have nothing in common with the Gulf of Maine area. In the cases cited by Canada, there are no geomorphological or oceanographic features that would promote the formation of separate stocks naturally divided from one another [1]. Furthermore, the stock boundaries illustrated by Canada would conflict with, rather than conform to, boundaries that respect the seaward extension of the coastal fronts of the parties concerned [2].

144. In its Memorial and Counter-Memorial, Canada recalls successes in resource conservation and management by agreement, in particular between the United States and Canada. Canada purports to discern "a community of interest between coastal States that makes their differences far easier to reconcile than the deeply rooted conflicts between distant-water and coastal States [3]". In the case of Georges Bank, however, a recent and heavily subsidized Canadian fishing industry catches stocks

[1] The continental shelf seaward of the Rio de la Plata is relatively broad and without significant breaks in its trend along the coast. [Canadian Counter-Memorial, Fig. 39A.] The same is true of the coast of West Africa in the area off Morocco and Mauritania. [Canadian Counter-Memorial, Fig. 40B.] Similarly, the shelf off Senegal and Guinea-Bissau is essentially unbroken in its bathymetry beyond the islands, and the region has no well-defined physical or biological boundaries. There are no juxtaposed current systems or other features that would tend to promote the development of separate stocks in the immediate region. [Canadian Counter-Memorial, Fig. 39B.] Similarly, the Persian Gulf has no features that would promote the development of separate stocks. [Canadian Counter-Memorial, Fig. 40A.]

[2] Figures 39 and 40 of the Canadian Counter-Memorial thus miss the point. They show stocks that are transboundary in relation to the *land* boundary and the coastal fronts of the States concerned. By contrast, in the Gulf of Maine area, most commercially important stocks would not be transboundary in relation to the land boundary and its extension into the sea, were the boundary to respect the coastal fronts of the Parties in the manner proposed by the United States. These stocks would be transboundary, however, in relation to the boundary proposed by Canada.

[3] Canadian Counter-Memorial, para. 508. To the extent that coastal States share the goals of reducing the catches of distant-water fleets, increasing their own, and ensuring long-term conservation, Canada's point is correct. Nevertheless, allocation between coastal States remains a problem. Their respective desires to advance their own fishing and management goals often may be in direct conflict. That has been reflected in the history of the Parties' fishing activities on the east coast of North America.

that historically have been caught by United States fishermen, and disposes of that catch in United States markets. There is no community of interest reflected in such a situation. It is, quite to the contrary, a situation fraught with resentment and potential discord.

145. Moreover, even the west coast salmon fishery, perhaps one of the better examples of fishery cooperation between the United States and Canada, demonstrates vividly the difficulties incurred in managing shared stocks. Most of the salmon stocks in Oregon, Washington, British Columbia, and southeast Alaska follow migratory patterns that enable them to be caught by the fishermen of both States. Under the Fraser River Convention [1], the salmon stocks that spawn in the Fraser River in Canada have been managed cooperatively since 1930. The Fraser River Convention has been one of the most successful of international fishery agreements. Nevertheless, because of the common-pool nature of the resource and the difficulties of joint management, even the Fraser River Convention has fallen short of achieving optimum production. Canada has not agreed to the construction.of salmon enhancement facilities because, under the terms of the Convention, United States fishermen would share the increase in the harvest. Canada, it may be noted, recently has threatened to withdraw from the Convention [2]. Furthermore, the other salmon stocks in the region are not subject to cooperative management. In the absence of agreement, increased salmon production achieved through conservation measures, costly salmon hatcheries, or other enhancement programs undertaken by one State, may be harvested by fishermen of the other State. As a result, the implementation of such programs has been discouraged, and the stocks increasingly are being depleted; many are in danger of extinction. Both Parties recognize the decline of the resource and the urgent need for an agreement. In fact, the Parties have sought to negotiate such an agreement for 20 years. In recent years, there have been biannual negotiations involving delegations of over 50 members from each Party, as well as numerous smaller meetings. The inability, thus far, to reach an agreement, notwithstanding the good faith and enormous efforts of each side, is compelling evidence of the difficulty of reaching agreement on conservation programs that involve the distribution of resources between the fishermen of different States.

146. Canada's use of such terms as "cooperation" and "monopolistic" obscures the essential point. Some degree of cooperation between neighboring States is, of course, essential on matters of resource conservation.

[1] Convention for the Protection, Preservation and Extension of the Sockeye Salmon Fisheries in the Fraser River, League of Nations Treaty Series, Vol. 184, p. 305.

[2] Aide-Memoire from Embassy of Canada to the Dept. of State, 7 Mar. 1983; Aide-Memoire from the Dept. of State to Embassy of Canada, 8 Apr. 1983. Annex 15.

Regardless of where this Court delimits the boundary in the Gulf of Maine area, a level of cooperation in fisheries conservation and management between the United States and Canada will be required. The question before the Court is whether the boundary it will delimit will complicate this task by splitting the Bank and requiring joint management of all its resources, or whether the Court instead will facilitate the task by delimiting a boundary that does not split Georges Bank and thus minimizes the need for agreement on questions of resource conservation and management.

SECTION 3. The Third United States Principle: the Boundary Should Minimize the Potential for International Disputes

147. Canada entitles its discussion of this equitable principle: "A Prescription for Inequity and Conflict [1]". The principle of dispute minimization is designed, however, to avoid such inequity and conflict. Canada's attack upon this principle is based upon the assumption that Canada already has an interest that is entitled to legal recognition; in fact, it has yet to be determined by this Court whether Canada has any such interest. The simple unilateral assertion of a claim does not constitute a cognizable right.

148. Canada's approach is based upon the notion that, in any dispute, it is the Court's role to find a "mutually acceptable outcome [2]". In other instances, the Canadian Counter-Memorial is even less subtle: "the object is to effect a broadly equal division of the area to be delimited [3]". Each of these propositions is a fundamental misstatement of the Court's role. That role is to determine a boundary on the basis of the principles and rules of law applicable in the matter as between the Parties. Should those principles and rules of law lead to a determination that the claim of one State is correct, then no other solution is equitable. Accordingly,

> "[i]f a State claiming a right to an area of continental shelf really possesses that right such as it describes it, it is not equity to deprive it of it but an error of law . . . [4]".

149. Once Canada's unwarranted assumption is set aside, it becomes apparent that the Court should apply the principle that the boundary in this case should minimize the potential for international disputes to the extent possible.

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[1] Canadian Counter-Memorial, Part III, Chapter II, Section II. B. 1.

[2] Canadian Counter-Memorial, para. 526. Canada states therein: "if the crucial resources or resource area in issue must go to only one of the two sides, the prospect of a mutually acceptable outcome would be effectively ruled out from the start ".

[3] Canadian Counter-Memorial, para. 577.

[4] *I.C.J. Reports 1982,* Dissenting Opinion of Judge Gros, p. 153, para. 19.

150. Adopting the Canadian line would entitle Canada to conduct oil and gas development on the northeastern portion of Georges Bank. As was stated in Annex 2 of the United States Counter-Memorial:

> "In the event oil were discharged into the water column in the course of hydrocarbon development on the northeastern portion of Georges Bank, it would be transported in the circulation pattern over the Bank before it dissipated. Because the larvae of fish and shellfish are *particularly susceptible to damage from oil, and because the* northeastern portion of Georges Bank is a major spawning ground for important commercial stocks that range over the entire Bank, the Georges Bank stocks as a whole would be damaged by a discharge of oil during spawning season on the northeastern portion of the Bank. Furthermore, oil would be assimilated into the sediments on Georges Bank, and would continue to harm adult organisms, such as lobster and scallops, that live on the seabed. Due to the pattern in which water circulates over Georges Bank and the direction of the prevailing winds, *it is highly unlikely that oil discharged into the water* column above the northeastern portion of the Bank either would cross the Northeast Channel to the Scotian Shelf or reach the coasts in the Gulf of Maine area [1]".

Even the prospect of pollution on Georges Bank caused by Canadian oil and gas activities would cause tensions, and were such pollution to occur, it would create a serious bilateral dispute that could not readily be resolved.

151. The conservation and management of the fish resources in the Gulf of Maine area have been particularly contentious and emotional issues for the United States and Canada. If the boundary line were to cut through most of the commercially important stocks in the area, then either United States fishing in its waters or Canadian fishing in its waters would affect the abundance of fish in the other State's portion of Georges Bank. The management of the Georges Bank fisheries would remain forever a potential source of disputes between the two States.

152. The Canadian posture regarding the development of the law of the sea also is relevant in this respect. Pursuant to Article II, paragraph 1, of the Special Agreement, the single maritime boundary delimits coastal-State jurisdiction for all purposes under international law, present and future. The history of United States activities relating to Georges Bank, when compared with that of Canada, supports the conclusion that the United States should not be required to accept the possibility of a progressive expansion of Canadian restrictions upon United States maritime and other activities on and over any part of Georges Bank.

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[1] United States Counter-Memorial, Annex 2, Vol. IB, para. 23.

153. History is replete with examples of conflict created by boundaries that do not reflect traditional activities or that divide natural resources. Any legal system that allocates areas into separate geographical units inevitably will work best if it minimizes the situations in which local autonomy and discretion are conferred in principle but cannot work in fact. In some cases, joint or cooperative governance is the only available choice; however, the emergence of the regimes of the continental shelf and the exclusive economic zone implies in principle and reflects in fact a preference for local autonomy to the extent possible.

154. When there is a choice, and when it is otherwise equitable to do so, surely a boundary that would minimize international disputes should be chosen over one that would make them certain.

SECTION 4. The Fourth United States Principle: the Boundary Must Take Account of the Relevant Circumstances in the Area

155. The United States and Canada are in general agreement that the relevant circumstances in the area must be taken into account. There are, however, fundamental differences between the Parties as to the relevant circumstances and the equitable boundary solution indicated by such circumstances. As is shown in the United States Memorial and Counter-Memorial, as well as in Sections 1, 2, and 3 of this Chapter, Canada has ignored or misapplied the circumstances relevant to the application of the first three equitable principles. In particular, Canada has ignored or misapplied, as is shown in the United States Memorial and Counter-Memorial, relevant circumstances relating to the geographical circumstances and the position of the Northeast Channel as an important geomorphological feature, one that marks a natural boundary in the Gulf of Maine area. Canada also has ignored or misapplied other relevant circumstances in the Gulf of Maine area. Canada's misapplication of the relevant circumstances is discussed further in Part IV hereinafter, and in Annexes 20 through 30 to this Reply.

PART IV. THE EQUIDISTANT LINE, AS WELL AS CANADA'S LINE, WOULD IGNORE THE RELEVANT CIRCUMSTANCES IN THE GULF OF MAINE AREA, WHEREAS THE METHOD OF APPLYING AN ADJUSTED PERPENDICULAR TO THE GENERAL DIRECTION OF THE COAST TAKES SUCH CIRCUMSTANCES INTO ACCOUNT

INTRODUCTION

156. This Part of the United States Reply contains five chapters. The first chapter examines the relevant geographical circumstances in this case. It shows that Canada has misread or ignored important geographical circumstances in the Gulf of Maine area. The second chapter evaluates the Canadian argument that equidistance is an appropriate method in this case because there is a "balance" in the relevant geographical circumstances of the two States. This evaluation reveals that the geographical configurations upon which Canada has focused are not "in balance", but that there is a geographical balance between the coastal fronts of the Parties on either side of the land boundary in relation to the Atlantic Ocean at Maine and New Hampshire and from Cape Sable to Cape Canso. The third chapter examines the equidistance method in the light of Canada's contentions concerning the relevant circumstances. The equidistant line, and perforce Canada's modified equidistant line, once again are shown to produce an inequitable delimitation in this case. The fourth chapter reviews the reasons why the method of applying an adjusted perpendicular to the general direction of the coast produces an equitable result in the circumstances of this case. Finally, the proportionality test is examined and applied to the single maritime boundary in the Gulf of Maine area, confirming that the adjusted perpendicular line proposed by the United States produces an equitable result, whereas the line proposed by Canada would not.

CHAPTER I

CANADA MISREADS OR IGNORES THE RELEVANT GEOGRAPHICAL CIRCUMSTANCES IN THE GULF OF MAINE AREA

157. Canada's description of the location of the land boundary and the geographical relationship between the Parties, of the general direction of the coast, of the coastal configuration, and of the other special geographical features of the Gulf of Maine area does not comport with the actual, and thus the legally relevant, geographical facts.

SECTION 1. The Location of the Land Boundary in the Far Northern Corner of the Gulf of Maine

158. The equitable character of any proposed solution depends in large part upon the geographical relationship of the Parties. The location of the land boundary is the starting point for identifying that relationship [1]. In the Gulf of Maine area, the land boundary meets the sea in the far northern corner of the coastal concavity that is the Gulf of Maine.

159. In its Counter-Memorial, Canada characterizes this proposition as a "geographical riddle [2]". In the 14 October 1977 Canadian Legal Statement, however, Canada described the international boundary terminus as very nearly in the corner of the rectangle that Canada then acknowledged was formed by the configuration of the coasts. That statement recognized that the Canadian coast from the international boundary terminus to Cape Sable was represented by a straight line connecting those points, including a closing line across the mouth of the Bay of Fundy. Canada thus would appear previously to have solved its own "geographical riddle".

160. Both the Gulf of Maine and Georges Bank lie south of the land boundary and in front of the United States coast. In the Gulf of Maine area, Canada lies to the northeast of the United States [3]. This is confirmed

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[1] *See* United States Memorial, paras. 284 and 285; United States Counter-Memorial, paras. 291-295. *See also I.C.J. Reports 1982*, p. 64, para. 81.

[2] Canadian Counter-Memorial, para. 89.

[3] The United States and Canada are adjacent States on the North American continent. Canada generally is north of the United States. Canada argues, however, that, at least in the Gulf of Maine area, it lies to the east of the United States. To support its view, Canada focuses attention upon a single 152-kilometer segment of the land boundary between Maine and New Brunswick. [Canadian Counter-Memorial, para. 84. *See also* Canadian Memorial, para. 18.] That segment, however, not only is more than 110 kilometers from the sea, but also is an aberration in terms of direction—both in the Gulf of Maine area and in the macrogeographical relationship between the Parties. [United States Counter-Memorial, para. 29, n. 1.]

by both Parties' descriptions of the general direction of the coast. It is also confirmed by the general direction of the land boundary over its final 110-kilometer segment. This segment follows the St. Croix River to where the land boundary reaches the sea at Passamaquoddy Bay. That general direction has a bearing of approximately 151 degrees, indicating that the land boundary reaches the sea in a direction that is very nearly (187) perpendicular to the general direction of the coast [1]. Figure 6.

161. In light of the southwest-to-northeast geographical relationship of the Parties in the Gulf of Maine area, it is reasonable to expect that a boundary extending 200 nautical miles from the coast would terminate at a point that is generally to the southeast of the international boundary terminus. That is the case with respect to the adjusted perpendicular line proposed by the United States. Variations of a few degrees might be justified by the relevant circumstances in the area, but one would not expect the end of the 200-nautical-mile boundary to be due south of the international boundary terminus. That, however, would be the result achieved by the Canadian line. The equidistance method produces such an inequitable result in this case for two reasons: first, the international boundary terminus is located in the far northern corner of the Gulf of Maine concavity; and, second, one side of the Gulf of Maine concavity, the short, southwestern-facing coast of Nova Scotia, lies at a right angle to the general direction of the Atlantic coast of the Parties, protruding south of the international boundary terminus, and thereby causing the equidistant line to swing out across, and "cut off", the coastal front of the United States.

SECTION 2. The General Direction of the Coast in the Gulf of Maine Area

162. The general direction of the coast identifies the coastal fronts of the Parties. The United States and Canada do not differ radically with regard to the direction of the coast in the Gulf of Maine area. Canada acknowledges that the coast "has a general northeast to southwest

[1] This azimuth was calculated using the following coordinate values taken from Special Report No. 3 of the International Boundary Commission, *Revised Data from the Source of St. Croix River to the Atlantic Ocean and Maintenance on this Section from 1925 to 1961*, 1962:

Initial Monument at the source of the St. Croix River, Monument No. 1—45°56'36.229"N, 67°46'54.467"W;

Point where St. Croix River meets Passamaquoddy Bay (T.P.1)—45°04'27.978"N, 67°05'42.417"W.

Distance along a geodesic=110.5 kilometers, along a rhumb=110.5 kilometers; initial geodesic azimuth=150.7°, rhumb line azimuth=151.0°.

orientation[1]". Canada asserts that this direction is 67 degrees[2]; the United States position is that a correct analysis of the facts leads to an azimuth of 54 degrees[3]. The primary consideration is that each Party has acknowledged that there is a general direction of the coast that can be determined[4] within the relevant area.

SECTION 3. The Coastal Concavity That Is the Gulf of Maine

163. Canada ignores the two most important geographical circumstances in this case: the concavity that is the Gulf of Maine and the land boundary, which meets the sea in the far northern corner of that concavity. The United States submits that it is impossible for the delimitation in this case to ignore these critical circumstances, because the boundary must begin in the corner of the concavity, extend through the concavity to its mouth, and then proceed seaward from the concavity.

164. In its Counter-Memorial, Canada acknowledges that the Gulf of Maine "constitutes one of the four major embayments or concavities along the North American coast[5]". As previously noted, Canada, in the 14 October 1977 Canadian Legal Statement, described the area in which the delimitation is to take place as a rectangle, with the land boundary specifically located in one corner of that rectangle. In the analysis in its Counter-Memorial, however, Canada ignores the concavity of the Gulf of Maine itself and focuses upon certain concavities and convexities of far less significance. Canada advances as legally relevant to delimitation (1) the Bay of Fundy, which is not in the area in which the delimitation is to take place, and (2) Cape Cod and Nantucket Island, which are located far from the international boundary terminus. At the same time, Canada chooses to ignore not only the Gulf of Maine itself, but also the primary coastal front of the United States at Maine and New Hampshire.

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[1] Canadian Memorial, para. 19.

[2] Canadian Counter-Memorial, para. 94.

[3] Paras. 91 and 92 of the Canadian Counter-Memorial raise certain questions concerning the depiction of direction on the charts that the United States has presented in this case. Annex 35 contains a critique of Canada's discussion regarding the technical use of rhumb lines and geodetic lines by the Parties in this case.

[4] As Canada notes: "the determination of the general direction of the coast is a question of interpretation . . ." [Canadian Counter-Memorial, para. 96], and "[t]he difference between the Canadian and United States approaches to the determination of the general direction of the coasts is partly a function of scale". [*Ibid.*, para. 97.]

[5] Canadian Counter-Memorial, para. 116.

SECTION 4. The Fishing Banks and the Northeast Channel

165. Georges Bank and the banks on the Scotian Shelf are located entirely within the relevant area [1]. Marine scientists have studied these banks, and the living and non-living resources associated with them, in detail for many years. They are well-known, clearly defined features that constitute special or relevant circumstances in this case.

166. The Northeast Channel also is a special feature, dividing the Scotian Shelf from Georges Bank and connecting the continental slope with the Gulf of Maine Basin. It is neither the deepest nor the widest "trench" in the world, and it is smaller than the Laurentian Channel. Nevertheless, in comparison to the surrounding seabed in the Gulf of Maine area, it is a prominent feature. It is not a mere "wrinkle of geomorphology [2]", as Canada alleges. Furthermore, it lies perpendicular to the general direction of the coast in the area in which the delimitation is to take place. It coincides with many of the lines that the Parties have used for various purposes in the Gulf of Maine area [3]. Thus, the Northeast Channel is distinguishable from seabed features—such as the Hurd Deep or the Tripolitanian Furrow—that have been considered in other cases. The United States believes that the Northeast Channel is a special and unusual geomorphological feature, one that marks a natural boundary in the marine environment, and a relevant circumstance that must be taken into account in this delimitation [4].

167. International law recognizes that natural features may constitute maritime boundaries where those features serve some function that relates to the interests of the Parties in the area. The International Law Commission, and the International Court of Justice in the *North Sea Continental Shelf* cases and the *Tunisia/Libya* case, as well as the Court of Arbitration in the *Anglo-French Arbitration*, have recognized that geomorphological features have a role to play in maritime boundary

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[1] Canada's assertion that the Scotian Shelf, except for that portion off the southwestern coast of Nova Scotia, is irrelevant to this case [Canadian Counter-Memorial, para. 73] only highlights the arbitrary and inequitable nature of Canada's position. Canada argues that it is entitled to a share of Georges Bank simply because Canadian fishermen, primarily from Lunenburg, located some 82 nautical miles northeast of Cape Sable, fish on Georges Bank, which is 155 nautical miles from Lunenburg. On this basis, Canada argues that the Canadian coastline between Cape Sable and Lunenburg is relevant. Nonetheless, Canada denies that the Court may consider the maritime area seaward from Lunenburg as part of the relevant area for the determination of relevant circumstances.

[2] Canadian Counter-Memorial, para. 28. Annex 26 to this Reply is a critique of Canada's analysis of the geomorphology of the Gulf of Maine area.

(24)(25)(27)(28)(102)-(106) [3] *See* United States Memorial, Figs. 8-9 and 13-15; United States Counter-Memorial, Figs. 14-18.

[4] United States Memorial, paras. 37-40, 50, and 51.

delimitation [1]. Similarly, the decision of the Arbitral Tribunal in the *Grisbadarna* case took account of such features when it altered the boundary to avoid a division of the Grisbadarna fishing bank [2]. Furthermore, in the *Anglo-Norwegian Fisheries* case, Norway's system of straight baselines was upheld in part because it was deemed necessary to confirm Norway's jurisdiction over fishing banks [3]. More recently, the Parties to the Convention on the Conservation of Antarctic Marine Living Resources used a natural feature to delimit the area subject to that Convention [4].

168. Accordingly, under international law, the question no longer is whether natural features in the marine environment may be used in delimiting maritime boundaries, but whether such features are to be found in the area to be delimited, and the weight, if any, that should be afforded those features in the delimitation. In this case, such special features are present. Moreover, they are entitled to great weight in the balancing of the relevant circumstances because, unlike socio-economic considerations, they are permanent. Their importance is highlighted by the fact that they likewise are relevant to the delimitation of both the continental shelf and the 200-nautical-mile fisheries zone.

[1] 1953 Y.B. Int'l L. Comm., Vol. II, p. 216; *I.C.J. Reports 1969*, p. 54, para. 101(D)(2)[*dispositif*]; *I.C.J. Reports 1982*, p. 58, para. 68; and *Decisions*, p. 63, para. 108.

[2] *Grisbadarna*, Hague Ct. Rep. (Scott), 1916, p. 129 [42nd Whereas]. United States Memorial, Annex 4, Vol. I.

[3] *Fisheries, Judgment, I.C.J. Reports 1951*, p. 142.

[4] United States Counter-Memorial, para. 315, n. 1.

CHAPTER II

THE POSITION OF THE LAND BOUNDARY IN THE FAR NORTHERN CORNER OF THE GULF OF MAINE, AND THE POSITION OF THE NOVA SCOTIA PENINSULA, CREATE GEOGRAPHICAL IMBALANCES IN THIS CASE

169. The Canadian Counter-Memorial argues on behalf of the concept of geographical "balance", apparently to support the proposition that equidistance is the appropriate method of delimitation when geography is "in balance [1]". The Canadian Counter-Memorial appears to say that, if the geographical features on either side of the land boundary are comparable, their effects upon the equidistant line likewise will be comparable, and no inequity will result from the use of the equidistance method. Regardless of the merits of Canada's theory, an examination of the relevant geography and of Canada's assertions shows that each comparison that Canada has made in attempting to show balance proves, to the contrary, that there is a clear imbalance. Canada in fact overlooks the one element of geographical balance in this case—the Parties' coasts on either side of the land boundary at Maine and New Hampshire and from Cape Sable to Cape Canso that are comparable, or "balanced", in relation to the Atlantic Ocean.

170. Canada's main assertion with regard to "balance" is as follows:

> "The geographical relationship of the Parties to the Gulf of Maine area in general and to Georges Bank in particular is marked by an overall balance. Each Party has a roughly equal length of coastline bordering on the Gulf of Maine, and each has a major concave and a major convex feature on its coast: on the Canadian side, the Bay of Fundy and the Nova Scotia peninsula, and on the United States side, the concavity in the northwest corner of the Gulf and the convexity of southeastern Massachusetts. As additional elements of balance, the Fundy coasts of New Brunswick and Nova Scotia and the coasts of Maine and New Hampshire all face the innermost part of the Gulf of Maine; the coast of Nova Scotia and the coast of Massachusetts face each other from opposite sides of the Gulf; and to seaward, the coast of Nova Scotia and the coasts of Massachusetts and Rhode Island face the Atlantic Ocean on either side of Cape Sable and of Cape Cod and Nantucket [2]."

[1] Canadian Counter-Memorial, Part II, Chapter II, Section 2.

[2] Canadian Counter-Memorial, para. 65.

This Canadian description of the geographical circumstances of the Gulf of Maine area does not withstand analysis.

171. The basis of Canada's claimed "balance" is the alleged comparability of the respective coastal lengths of the United States and Canada "bordering" the Gulf of Maine. This assertion would be significant only if the coastlines of the Bay of Fundy in fact were part of the Canadian coast facing the Gulf of Maine; however, the Canadian coasts in the Bay of Fundy face only each other. They form a bay over which the United States makes no claim of jurisdiction. The Bay of Fundy is a separate marine feature from the Gulf of Maine, regarded as such by the International Hydrographic Organization [1]. Its water and seabed appertain to the bordering coastlines of New Brunswick and Nova Scotia. The Gulf of Maine is not a marine area that appertains to the coasts surrounding the Bay of Fundy. The Bay of Fundy is not included within, but rather is outside, the area in which the delimitation in this case is to take place. Thus, any calculations of coastal length in the Gulf of Maine area must exclude the Canadian coastlines in the Bay of Fundy. It then can be seen that the coastlines of the Parties *facing* upon the Gulf of Maine are not in balance. Indeed, approximately three-quarters of the coastline facing upon the Gulf of Maine is United States territory [2].

172. Canada next asserts that there is a comparability between the concavity in the coast at the Bay of Fundy and that "in the northwest corner of the Gulf"—presumably in the vicinity of the New England coast between Gloucester, Massachusetts, and Portland, Maine. A glance at the map shows that there is no measure of comparability or balance in either size or shape between these coastal configurations.

173. Similarly, Canada asserts that there is "a major convex feature" on the coast of each Party: the Nova Scotia peninsula and "southeastern Massachusetts". The United States welcomes Canada's acknowledgment that the Nova Scotia peninsula is a major convex feature. The feature to which Canada compares this peninsula, however, presumably the United States coast between Boston and New Bedford, is barely convex in comparison to Nova Scotia. There is also a major difference in relative location. The Nova Scotia peninsula protrudes south of the international boundary terminus, causing the equidistant line to encroach upon the

[1] *See* United States Counter-Memorial, para. 17, n. 2, and Annex 11, Vol. V.

[2] A simplified United States coastline measured in straight lines from the international boundary terminus to Cape Ann (210 nautical miles) and from Cape Ann to Nantucket Island (84 nautical miles) totals 294 nautical miles in length. A corresponding simplified Canadian coastline, the straight line between Cape Sable and the international boundary terminus referred to in the 14 October 1977 Canadian Legal Statement, measures 100 nautical miles in length. The coastline lengths therefore are in a United States-to-Canada ratio of 75:25. For the technical basis for these measurements, *see* Annex 34.

extension seaward of the primary coastal front of the United States. Southeastern Massachusetts is located far from the international boundary terminus, and does not cause the equidistant line to extend across the Canadian coast. Therefore, with respect to this third point as well, there is not the "balance" that Canada seeks to create.

174. Canada purports to establish yet another measure of "balance" when it asserts that "the Fundy coasts of New Brunswick and Nova Scotia and the coasts of Maine and New Hampshire all face the innermost part of the Gulf of Maine". These coasts, however, are entirely dissimilar: the Canadian coasts in the Bay of Fundy face each other and are located outside the area in which the delimitation is to take place, whereas the primary coastal front of the United States faces not only the Gulf of Maine, but the Atlantic Ocean as well. This attempt represents but one further instance of Canada's comparison of "unlike with unlike".

175. Canada attempts to buttress its notion of "balance" by comparing the eastern coast of Massachusetts with the southwestern-facing coast of the Nova Scotia peninsula. Although these coastal fronts are of approximately equal lengths, Canada ignores that they are two inward-facing coasts located within a coastal concavity, and that there is an intervening and longer primary United States coastline located between them at Maine and New Hampshire that faces the Atlantic Ocean.

176. Canada asserts that "both the concavity and the convexity on the Canadian side are more pronounced than the corresponding features on the United States side [1]". Canada concludes nonetheless that the "*net result is that . . . there is an overall balance* [2]". The convexity "on the Canadian side"—Nova Scotia—in fact has a far "more pronounced" effect upon the equidistant line than does southeastern Massachusetts, the convexity on the coast of the United States described by Canada, thereby inequitably tilting the use of the equidistance method in Canada's favor. Furthermore, Canada's "more pronounced" concavity, the Bay of Fundy, is outside the area in which the delimitation is to take place and has no effect whatsoever upon the equidistant line.

177. Finally, Canada attempts to find a balance in that the United States coastline southwest of Cape Cod and Nantucket Island, and the Canadian coastline northeast of Cape Sable, "face the Atlantic Ocean". With this proposition, Canada ignores the coasts of Maine and New Hampshire, which are recessed in the coastal concavity, but which also face the Atlantic Ocean.

178. Accordingly, the Canadian line of reasoning that adds up to an overall balance is without foundation. Furthermore, Canada's discussion

[1] Canadian Counter-Memorial, para. 118.

[2] Canadian Counter-Memorial, para. 118. [Emphasis in original.]

of the geography of the Gulf of Maine area ignores the location of the land boundary, the Gulf of Maine itself, and its effect upon the equidistant line. Because the Gulf of Maine is a coastal concavity located entirely south of the international boundary terminus, the equidistant line cuts across the United States coast, not the Canadian coast. Canada's discussion also ignores the fact that the coasts of the Parties are not balanced in relation to the Gulf of Maine or to Georges Bank because these features are south of the land boundary and lie in front of the primary United States coast at Maine and New Hampshire, but not in front of the primary Canadian coast from Cape Sable to Cape Canso.

179. In brief, both Parties, in the Gulf of Maine area, have long, Atlantic-facing coastal fronts of roughly equal lengths: the Maine-New Hampshire coast and the Nova Scotia coast from Cape Sable to Cape Canso. The Parties also have approximately equal lengths of coastal front facing each other across the interior of the Gulf of Maine. These are the coasts from Cape Ann to Nantucket and from the international boundary terminus to Cape Sable. An equitable boundary will afford these comparable coastlines comparable treatment. It is this element of balance that should be the focus of attention. Each State is entitled to a comparable seaward extension of its primary coastal front into the Atlantic Ocean. The short secondary Canadian coast of southwestern Nova Scotia that faces the Gulf of Maine disrupts the balance that otherwise would exist in the extension seaward of the primary coastal fronts of the Parties into the Atlantic Ocean. Canada's use of the equidistance method in the concavity that is the Gulf of Maine would deny the United States primary coastal front the extension to which it is entitled.

CHAPTER III

IN THE GEOGRAPHICAL CONFIGURATION OF THE GULF OF MAINE AREA, THE EQUIDISTANT LINE AND CANADA'S LINE PRODUCE AN INEQUITABLE SOLUTION

SECTION 1. Both the Equidistant Line and Canada's Line Are Inequitable Because They Cut Off the Seaward Extension of the United States Coast at Maine and New Hampshire

180. The United States has shown that the equidistant line, and *a fortiori* the modified equidistant line proposed by Canada, are not in accord with equitable principles in the Gulf of Maine area [1]. These lines cut off the extension of the United States coastal front into the Atlantic Ocean, thereby allocating a large area seaward of the Gulf of Maine to Canada, when in fact Canada has no coastal front whatsoever facing that area [2].

181. The Court described the cut-off effect in its judgment in the *North Sea Continental Shelf* cases [3]. The Court expressly associated that effect with the application of the equidistance method in coastal concavities [4]. The Court of Arbitration in the *Anglo-French Arbitration* has affirmed these geographical truths, and their applicability to delimitations involving two States as well as to those involving three States [5].

182. The applicability and relevance to the present case of the 1969 judgment is not merely a matter of searching that decision for apt words or broad propositions that might support a party's position. The importance of that judgment to this case is that, beyond its proclamation of general rules and principles of international law, the very essence of the Court's decision is fully applicable here. Canada recognizes the implications of the decision in the *North Sea Continental Shelf* cases when it calls upon the Court to reconsider its "essential rationale [6]".

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[1] United States Memorial, paras. 268-276, and 305-331; United States Counter-Memorial, Part III, Chapter III.

(37) [2] *See* United States Memorial, Fig. 31 [*reprinted at* United States Counter-Memorial, Fig. 23].

[3] *I.C.J. Reports 1969*, p. 49, para. 89. The Court also discussed the cut-off effect in the *Tunisia/Libya* case, *I.C.J. Reports 1982*, p. 62, para. 76.

[4] *I.C.J. Reports 1969*, p. 49, para. 89.

[5] *Decisions*, p. 54, para. 84; and p. 55, para. 86.

[6] Canadian Counter-Memorial, para. 561.

183. In its 1969 decision, the Court rejected the equidistant line because it would unduly curtail the continental shelf area to be attributed properly to the coastal front of the Federal Republic of Germany. In the present case, there is a similar geographical situation before the Court. The coast of the Federal Republic of Germany, like that of the United States at Maine and New Hampshire, is in the back of a large coastal concavity facing the open sea. In this case, however, the potential inequity is not identical, but more severe.

184. There are three important differences between the coastal concavity in the Gulf of Maine area and that considered in the *North Sea Continental Shelf* cases. All three distinctions render equidistance even more inequitable and inappropriate in this case. First, the primary coast facing the mouth of the concavity in the Gulf of Maine area—the United States coast at Maine and New Hampshire—is longer than the corresponding coast in the North Sea. Second, the lateral coasts in the North Sea form obtuse angles with the primary coast, whereas in this case the lateral coasts lie at right angles to the primary coast. Both of these differences mean that an equidistant line that starts at the international boundary terminus in the right-angle corner of the concavity would swing out more sharply and farther across the primary coast of the United States than would an equidistant line across the German coast in the North Sea. Thus, the cut-off effect of the equidistant line is more aggravated in this case. Third, unlike the Netherlands and Denmark, Canada has another, much longer coast facing the relevant maritime area—the primary coast from Cape Sable to Cape Canso that faces the Atlantic Ocean and that already has received its full entitlement.

185. The Canadian claim, which is based upon the relationship of only two protruding coastal points, one on the Massachusetts coast and the other on the Nova Scotia coast, is contrary to the very crux of the reasoning underlying the Court's 1969 decision. In that case, the Court addressed the need to abate the cut-off effect produced by the extension of the lateral coasts of Denmark and the Netherlands upon the equidistant line. These lateral coasts bear a geographical relationship roughly comparable to that of Massachusetts and Nova Scotia in this case. The Court accepted the thesis that neither the longer distance from the German coast to the maritime area in dispute nor, conversely, the proximity of the Danish and Dutch coasts to that area, constituted a valid reason for depriving the coastal front of the Federal Republic of Germany, the coastal front facing the maritime area in dispute, from its extension into the sea. The Court expressed this thesis with the phrase "natural prolongation"—i.e., natural prolongation in its geographical sense, or coastal-front extension.

186. Canada's argument that the equidistant line should be adopted because that part of Georges Bank claimed by Canada generally is closer

to Nova Scotia than it is to the coast of the United States is unsound. The Court addressed the identical argument in the *North Sea Continental Shelf* cases and categorically rejected it [1]. The Court stated that "the question of which parts of the continental shelf 'adjacent to' a coastline bordering more than one State fall within the appurtenance of which of them, remains to this extent an open one, not to be determined on a basis exclusively of proximity [2]".

187. Canada further argues that the size of Nova Scotia requires that it be given full effect in the construction of an equidistant-line boundary. Size, however, is not determinative in considering the effects of a coastal concavity upon the course of an equidistant line. If the southwest tip of Nova Scotia receives full effect under an equidistance formula, the far larger state of Maine receives no effect, a result that clearly would be inequitable. Irrespective of the size of Denmark and the Netherlands, each received far less than the area it would have been allocated by a full-effect equidistant line. Spain is nearly ten times the size of Nova Scotia, yet it received less area under its boundary with France in the Bay of Biscay than an equidistant line would have provided [3].

188. The Court, as well as State practice, thus have rejected the use of the equidistance method in geographical configurations similar to that found in this case—a concavity in the coast, with both lateral coasts and a seaward-facing coastal front. The legal basis for the Court's conclusion, which gave paramount rights to the primary-seaward-facing coastal front rather than to the secondary lateral coasts in the concavity, is fully applicable to the Gulf of Maine area. The Court held:

> "More fundamental than the notion of proximity appears to be the principle—constantly relied upon by all the Parties—of the natural

[1] *I.C.J. Reports 1969*, pp. 29-30, para. 40.

[2] *Ibid.*, p. 30, para. 42; quoted with approval in the *Anglo-French Arbitration*, at *Decisions*, p. 52, para. 80.

[3] Canada miscomprehends the issue when it argues that Nova Scotia is a large *geographical feature, and to disregard it in any measure is to refashion nature.* The issue is not one of size but of location and the effect upon an equidistant line. If the effect of a geographical feature upon an equidistant line distorts the overall geographical relationship between the two States, to discount or abate that effect does not refashion, but respects, nature. In the *Anglo-French Arbitration*, the Court of Arbitration found that it was "the *presence* of the Channel Islands close to the French coast ... [that constituted] a circumstance creative of inequity [*Decisions*, p. 94, para. 197; emphasis added]; and, that it was "the *position* of the Scilly Isles west-south-west of the Cornish peninsula ... [that constituted] a 'special circumstance' ". [*Decisions*, p. 114, para. 245; emphasis added.] The *effects of these features upon the equidistant line therefore were discounted or* abated in order to achieve an equitable solution.

prolongation or continuation of the land territory or domain, or land sovereignty of the coastal State, into and under the high seas ... [1]".

The Court indicated that this principle—natural prolongation in its geographical sense, or coastal-front extension—constitutes the basis for the entitlement of a coastal State to a maritime area [1]. The Court recognized "the appurtenance of the shelf to the countries *in front of* whose coastlines it lies [2]".

189. In reaching its decision, the Court in 1969 had before it various maps and diagrams, including certain illustrations of areas other than that under consideration [3]. Those maps and diagrams illustrated the inequitable results that would be produced in concave geographical configurations should the equidistant line be applied. As was noted in the United States Memorial, one of those illustrations, reproduced at Figure 24 in the United States Memorial and here at Figure 7, depicted the Gulf of Maine area.

190. In its 1969 judgment, the Court expressly took account of the maps and diagrams before it, as reflected in the following statement of the Court concerning the use of equidistance in a coastal concavity:

> "[i]t would however be ignoring realities if it were not noted at the same time that the use of this method, partly for the reasons given in paragraph 8 above and partly for reasons that *are best appreciated by reference to the many maps and diagrams furnished by both sides in the course of the written and oral proceedings*, can under certain circumstances produce results that appear on the face of them to be *extraordinary, unnatural or unreasonable* [4]."

In paragraph 59 of its judgment, the Court once again referred expressly to these maps and diagrams in stating:

> "*As was convincingly demonstrated in the maps and diagrams furnished by the Parties*, and as has been noted in paragraph 8, the distorting effect of lateral equidistance lines under certain conditions of coastal configuration are nevertheless comparatively small within the limits of territorial waters, but produce their maximum effect in the localities where the main continental shelf areas lie further out [5]."

[1] *I.C.J. Reports 1969*, p. 31, para. 43.

[2] *I.C.J. Reports 1969*, p. 51, para. 95. [Emphasis added.]

[3] These Figures are reproduced in the United States Memorial at Figs. 21-23.

[4] *I.C.J. Reports 1969*, p. 23, para. 24. [Emphasis added.]

[5] *Ibid.*, p. 37, para. 59. [Emphasis added.]

191. The Court discarded the equidistance method in the geographical setting of the *North Sea Continental Shelf* cases for reasons that apply with equal force to this case:

> "... the use of the equidistance method would frequently cause areas which are the natural prolongation *or extension* of the territory of one State to be attributed to another, when the configuration of the latter's coast makes the equidistance line swing out laterally across the former's coastal front, cutting it off from areas situated directly before that front [1]".

This is a perfect description of the "extraordinary, unnatural, or unreasonable [2]" effect that the equidistant line or Canada's line would have were it to be applied in the Gulf of Maine area.

SECTION 2. Canada Misapplies the Decision of the Court of Arbitration in the *Anglo-French Arbitration*

192. Canada asserts that "the geographical situation in the outer part of the Gulf of Maine area is analogous to that in the Atlantic region [3]" considered by the Court of Arbitration in the *Anglo-French Arbitration*. The analogy to be drawn between the two cases is not the one described by Canada in its Counter-Memorial. Rather, as Canada recognized in the 14 October 1977 Canadian Legal Statement, the outer part of the Gulf of Maine area, like the Atlantic region, lies off, rather than between, the coasts of the two States.

(56) 193. Figure 14 of the Canadian Counter-Memorial consists of small charts of the Gulf of Maine area and of the Atlantic region involved in the *Anglo-French Arbitration*. Although Canada characterizes these areas as analogous, and they are in some respects as noted above, they in fact are more fundamentally dissimilar. As even the Canadian charts show, in this case there is a common land boundary, whereas in the *Anglo-French Arbitration* there was not.

194. Canada's presentation of these charts reveals its misunderstanding of the *Anglo-French Arbitration*. As Canada recognizes in paragraph 144 of its Counter-Memorial, the Court of Arbitration concluded that the French and English coasts facing each other across the Channel did not abut the continental shelf in the Atlantic region. Rather, the coasts facing the Atlantic in the boundary area, whatever their configuration, were those that the Court of Arbitration found abutted the shelf to be delimited in the (56) Atlantic region [4]. Nonetheless, Canada suggests in Figure 14A of its

[1] *I.C.J. Reports 1969*, pp. 31-32, para. 44. [Emphasis added.]

[2] *Ibid.*, p. 23, para. 24.

[3] Canadian Counter-Memorial, para. 148.

[4] *Decisions*, p. 110, para. 233.

Counter-Memorial that the French and British coasts facing the English Channel abut the Atlantic shelf. This inaccurate premise permits Canada (56) to argue, as it does in Figure 14B, that the United States and Canadian coasts facing each other across the Gulf of Maine also abut the Atlantic shelf, while ignoring the one coast that does face the Atlantic Ocean in the area in which the delimitation is to take place in this case—the coast of Maine and New Hampshire at the back of the concavity that is the Gulf of Maine.

195. In its Memorial and Counter-Memorial, Canada repeatedly disregards the coastline of the United States at Maine and New Hampshire. That coastline faces directly upon the area to be delimited, both within and seaward of the Gulf of Maine. The existence of that United States coastline, which has no counterpart in the French and British coastlines east of Finistère and Cornwall, means that the Gulf of Maine area and the Atlantic region in the *Anglo-French Arbitration* are not analogous in this respect.

196. In the *Anglo-French Arbitration*, the equidistance method was applied in the English Channel west of the Channel Islands. As a result, the boundary in the outer region beyond the facing coasts started at approximately the midpoint of the closing line across the English Channel between the tip of Finistère and the tip of Cornwall. Since there was no British or French coastline across the English Channel facing the area to be delimited, and since there was as a result no common land boundary, the continental shelf boundary in the Atlantic region was determined on the basis of the relationship of the actual French and British coasts facing the Atlantic. These methods, while appropriate in the *Anglo-French Arbitration*, would not be appropriate in the vastly different geographical circumstances of the Gulf of Maine area.

197. If the coastal configuration in the *Anglo-French Arbitration* in fact were analogous to the Gulf of Maine area, there would be a French coastline across what is the English Channel, with a land boundary between the two States located in the corner of the resulting "concavity", (188) in the vicinity of southeast Cornwall. *See* Figure 8. The United States submits that, were the geographical situation of France and the United Kingdom as described above, the decision in the *Anglo-French Arbitration* would have been different. In keeping with both the *North Sea Continental Shelf* cases and State practice, the boundary would have respected the extension of the French coastal front at the back of the concavity into the Atlantic Ocean. In such a case, the boundary would not have extended from the land boundary across the concavity between Finistère and Cornwall to the midpoint on the closing line, nor would the seaward direction of the frontier have been determined solely by the location of the most seaward, protruding points on the two coasts. Rather,

the boundary would have taken account of the position of the land boundary and the primary coastal front of France facing the area to be delimited, with the result that, as is the case in the Bay of Biscay, and as should be the case here, the boundary seaward of the concavity would not start in the midpoint of the closing line across the mouth of the concavity. It would start instead at a point more closely related to the location of the land boundary and to the lengths of the respective coasts facing the area to be delimited.

SECTION 3. The Geographical Relationship of the Parties Is That of Adjacent States; the Coasts of the Parties Are Geographically Adjacent in Relation to the Area Seaward of the Gulf of Maine

198. It is generally acknowledged that the equidistant line is more likely to produce an inequitable delimitation in an adjacent relationship than it is in an opposite relationship[1]. Even in opposite situations, however, equidistance may produce a markedly inequitable result, e.g., the case of the Channel Islands in the *Anglo-French Arbitration*. The general proposition that equidistance bears a greater measure of propriety in an opposite relationship, however, may induce a State promoting the use of equidistance to search for oppositeness in virtually all geographical configurations[2].

199. Canada's approach to this issue has been inconsistent. Canada took the position in the 14 October 1977 Canadian Legal Statement that the boundary was a lateral line between adjacent coasts where it left the coasts behind as it extended into the Atlantic Ocean; that Statement recognized that in the area seaward of the Gulf of Maine, in the vicinity of Georges Bank, the area to be delimited was one of lateral rather than opposite coasts. In its Memorial, however, Canada shifted its view, stating that the outer area is "a hybrid situation where elements of oppositeness and adjacency are both in play[3]". Subsequently, in its Counter-Memorial, Canada changed positions yet again and states that the coastal relationship is "predominantly opposite across most of Georges Bank[4]". To add even further to the inconsistency, Canada argues in its Counter-Memorial

[1] *I.C.J. Reports 1969*, pp. 36-37, paras. 57-59; *I.C.J. Reports 1982*, p. 88, para. 126; *Decisions*, pp. 54-55, paras. 85-86; and p. 58, para. 95.

[2] Such characterizations are designed to assign a particular geographical situation to a predetermined classification, which in turn is designed to compel a preordained delimitation method. Thus, the characterization of the geographical relationship becomes an oblique means of encouraging or discouraging the use of the equidistance method. Unfortunately, such characterizations can distort and oversimplify the delimitation process. It is the equitableness of the application of a particular method to a specific geographical situation that is important.

[3] Canadian Memorial, para. 343.

[4] Canadian Counter-Memorial, para. 113; *see also* para. 682, which states in pertinent part: "[t]he relationship of the coasts . . . vis-à-vis the area to be delimited is predominantly one of oppositeness."

that "[t]he geographical relation of these coasts to the outer area is analogous to the relationship of the coasts of Finistère and Cornwall to the 'Atlantic region' [1]", which the Court of Arbitration considered to be a situation of geographical adjacency [2].

200. Canada's geometrical diagrams devoted to this issue generally are irrelevant to the geographical situation in the Gulf of Maine area. Indeed, they seem to be designed to convince the Court of Arbitration in the *Anglo-French Arbitration* that it should overturn its finding that the Atlantic region constituted an area that was off, rather than between, the coasts of the Parties in that case.

(53) 201. Figure 10 of the Canadian Counter-Memorial, which introduces the concept of a "zone of oppositeness", has no bearing upon the geometrical relationships of the coasts in the Gulf of Maine area. This is so because, once again, the coasts of Maine and New Hampshire (53) conspicuously are absent from Canada's diagram. Canada's Figure 10 (189) does not portray the geometry of a coastal concavity. Figure 9 of this (53) Reply corrects this deficiency in Figure 10 by adding a rectangle that corresponds to the location of Maine and New Hampshire at the back of the concavity in the geography of this case.

(53) 202. Canada asserts with regard to its Figure 10 that, if the angle formed by a point located beyond the confines of the coast together with points A and B (the protruding points on the lateral sides of the concavity) is less than 90 degrees, the geographical relationship is adjacent, and, conversely, if the angle is more than 90 degrees, the relationship is opposite.

203. If Canada's test is applied to a diagram that represents the geography of the Gulf of Maine concavity, Canada's points C and D in its so-called "zone of oppositeness" in fact form angles of less than 90 degrees

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[1] Canadian Counter-Memorial, para. 146.

[2] In speaking of the British and French coastlines abutting the continental shelf to be delimited, the Court of Arbitration stated:

> "... although separated by some 100 miles of sea, their geographical relation to each other *vis-à-vis* the continental shelf to be delimited is one of lateral rather than opposite coasts".

Decisions, p. 110, para. 233. Elsewhere, the Court of Arbitration stated:

> "... in the Atlantic region the situation *geographically* is one of two laterally related coasts, abutting on the same continental shelf which extends from them a great distance seawards into the Atlantic Ocean".

Decisions, p. 113, para. 241. [Emphasis in original.]

between point B and point X, located in the middle of the coast at the (189) back of the concavity. *See* Figure 9. Thus, what is "opposite" under the (53) rationale of Canada's Figure 10 in reality is "adjacent" when the facts of this case are taken into account.

204. Boundaries must be decided by facts and not by geometrical games. The geographical facts are before the Court. The coasts of the Parties are adjacent, by definition, because they share a land boundary. The Gulf of Maine area lies off, not between, the coasts of the United States and Canada. Seaward of the hypothetical closing line of the Gulf of Maine from Nantucket Island to Cape Sable, *the area in which the* delimitation is to take place lies in front of the coast of the United States alone, and not in front of any coast of Canada. Whatever label may be affixed to the coasts in question, whether opposite or adjacent, the equidistant line, and *a fortiori* the Canadian line, are inequitable in this case, because they encroach upon the extension of the primary United States coastal front.

SECTION 4. State Practice Does Not Reflect the Use of Equidistance in Geographical Circumstances Similar to Those in the Gulf of Maine Area

205. The United States Counter-Memorial demonstrates that the equidistant line and the equidistance method were not used as the principal basis for delimitation in the geographical circumstances of the North Sea and the Bay of Biscay [1]. In each case, the equidistant lines were terminated well within the coastal concavity, primarily because an *equidistant line would produce an increasingly inequitable delimitation* as it extended through, and seaward of, a coastal concavity [2].

206. Canada has argued that because the United States has used equidistance in other cases, it must do so here [3]. That argument, of course,

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[1] United States Counter-Memorial, Part III, Chapter III, Section 8.

(114) [2] Fig. 31 of the United States Counter-Memorial depicts an equidistant-line segment in the Gulf of Maine, drawn by analogy to the use of equidistance in the agreed North Sea continental shelf boundaries between the Federal Republic of (117) Germany and Denmark and the Netherlands: Fig. 36 of the United States Counter-Memorial depicts an equidistant-line segment in the Gulf of Maine, *drawn by analogy to the use of the equidistance method in the Bay of Biscay* continental shelf boundary between France and Spain.

[3] Canadian Counter-Memorial, paras. 642-644.

contradicts a basic premise of delimitation: that each boundary situation must be *evaluated in the light of the circumstances of that case*[1].

207. Canada's reference to the other United States-Canada maritime boundaries[2], where the United States believes equidistant lines produce equitable solutions, is more telling in confirming that Canada does not always find equidistance to be the appropriate method in other cases. Moreover, agreements between the United States and other States to use the equidistance method in certain geographical circumstances are not material to the geographical truths of this case. In this respect, the Canadian Counter-Memorial conveniently cuts short an explanation in a law review article of United States practice with regard to equidistance[3]. The pertinent quotation reads in full:

> "Although the U.S. maritime boundary position is based on the concept of 'equitable principles,' the boundaries that have been negotiated to date generally have been based on the equidistance method to one degree or another, giving full effect to islands. This approach has been adopted, not because the equidistance method has any special merit, but because its application in the particular circumstances served U.S. interests and the interests of our treaty partners. Equidistance is only a convenient technical method that may be practical for identifying a line to serve as a boundary if it is readily acceptable to both sides. Thus, it is not surprising that in U.S. and international practice the maritime boundaries easiest to settle are frequently delimited with reference to the equidistance method. More complex or disputed boundaries are generally settled or decided by giving effect to other methodologies[4]."

[1] In the *Tunisia/Libya* case, the Court stated:

> "It is clear that what is reasonable and equitable in any given case must depend on its particular circumstances."
>
> . . . .
>
> "Clearly each continental shelf case in dispute should be considered and judged on its own merits, having regard to its peculiar circumstances . . . ".

[*I.C.J. Reports 1982*, p. 60, para. 72; and p. 92, para. 132. *See also I.C.J. Reports 1969*, p. 50, para. 93.] The Court of Arbitration stated that, under either customary international law or Article 6 of the Continental Shelf Convention, "it is the geographical situation which indicates the applicable method of delimitation". [*Decisions*, p. 56, para. 87.]

[2] Canadian Counter-Memorial, para. 643.

[3] Canadian Counter-Memorial, para. 642.

[4] M.B. Feldman and D.A Colson, "The Maritime Boundaries of the United States", in 75 *American Journal of International Law*, No. 4, 1981, pp. 729, 749-750; Canadian Counter-Memorial, para. 642, n. 39, and Annexes, Vol. V, Annex 109.

208. Canada also has misread United States domestic practice[1]. Annex 9 to the United States Counter-Memorial explained that equidistant lines have been used infrequently in domestic United States practice, and that situations analogous to the Gulf of Maine area have been delimited in a manner consistent with the United States position in this case.

(69) (190)

209. Canada notes in its Counter-Memorial that the United States and Mexico used the equidistance method in delimiting their boundary in the Gulf of Mexico. Figure 35A of the Canadian Counter-Memorial, reproduced here as Figure 10A, merits study. In that case, the use of equidistance in a large coastal concavity produced an equitable delimitation because of the location of the land boundary between the United States and Mexico.

(109) (190)

210. In the Gulf of Mexico, the land boundary does not meet the sea in a corner of the concavity, nor on one of its lateral coasts; rather, it meets the sea in the middle of the primary coastline facing the mouth of the concavity. This location of the land boundary in the Gulf of Mexico thus corresponds to that depicted hypothetically in the Gulf of Maine area by line II in Figure 22 of the United States Counter-Memorial, reproduced here as Figure 10B. If the land boundary in the Gulf of Maine area met the sea at approximately Penobscot Bay, in the middle of the coastline facing the mouth of the concavity, as does the land boundary in the Gulf of Mexico, an equidistant line might then reflect the geographical relationship of the coasts of the Parties and the sea. The land boundary in the Gulf of Maine area, however, is located elsewhere, in the far northern corner of the area in which the delimitation is to take place.

211. Similar geographical circumstances were addressed in the North Sea and in the Bay of Biscay. Contrary to Canada's argument, the application of the equidistance method does not conform to State practice in situations such as that found in the Gulf of Maine area, and the Canadian line would not produce an equitable solution in this case.

SECTION 5. Both the Equidistant Line and Canada's Line Disregard the Northeast Channel, the Only Natural Boundary in the Marine Environment in the Gulf of Maine Area

212. Neither the equidistant line, nor Canada's modified equidistant line, takes account of relevant circumstances of the marine environment. Both lines ignore water depth, topography, and other characteristics of the marine environment, including the distribution of fish stocks. Consequently, both lines disregard the only natural boundary in the marine environment in the Gulf of Maine area, the Northeast Channel.

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[1] Canadian Counter-Memorial, para. 644.

A. Bathymetric Contours Illustrate That the Northeast Channel Is the Only Significant Break in the Surface of the Continental Shelf in the Gulf of Maine Area

213. The Parties agree that the North American east coast continental shelf is essentially continuous [1]. At the same time, the United States has demonstrated that the Northeast Channel is the only significant break in the surface of the shelf in the Gulf of Maine area [2]. The importance of the Northeast Channel as a major geomorphological feature in the Gulf of Maine area is confirmed by a re-examination of Figure 3 of the Canadian Counter-Memorial. That Figure contains five charts depicting selected bathymetric contours. The contours have not been combined by Canada in any logical order [3]. Figure 11 of this Reply shows the same contours, but adds them one at a time, in order from deep to shallow, to illustrate the relative significance of the bathymetric features.

214. Figure 11A shows only the 1000-meter-depth contour. This contour reveals only the continental slope; all other geomorphological features in the area are obscured. Figure 11B adds the 300-meter-depth contour, and Georges Basin begins to appear. Figure 11C adds the 240-meter-depth contour, at which point the Northeast Channel is discernible [4]. Adding the 200-meter-depth contour in Figure 11D reveals many of the familiar features of the Gulf of Maine area, including the outline of Georges Bank, the Northeast Channel, the Gulf of Maine Basin, and the Scotian Shelf. The 100-meter-depth contour in Figure 11E gives further definition to the sea floor. Only in Figure 11F, with the addition of the 60-meter-depth contour, is the Great South Channel revealed [5].

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[1] *See, e.g.*, Canadian Counter-Memorial, para. 171. Annex 27 to this Reply discusses certain inconsistencies in Canada's analysis of the geology of the Gulf of Maine area.

[2] United States Memorial, para. 31; United States Counter-Memorial, paras. 37-40.

[3] Although Canada, in Fig. 3 of its Counter-Memorial, criticizes the use of bathymetry in United States charts, Canada has chosen an arbitrary order of presentation to ensure that the 60-meter-depth contour is highlighted.

[4] This Figure shows the "sill", or minimum depth across the Channel, which prevents water from entering the Gulf of Maine Basin below that depth. United States Counter-Memorial, Annex 1, Vol. IA, Fig. 55 and p. 9, n. 3.

[5] Canada implies that the United States charts are misleading because they do not use the 60-meter-depth contour. [Canadian Counter-Memorial, para. 38.] The Canadian Hydrographic Service publication "Symbols and Abbreviations Used on Canadian Nautical Charts, 1981", however, does not refer to the 60-meter-depth contour. In addition, "Chart Specifications", a publication of the International Hydrographic Organization, states: "THE STANDARD SERIES OF CONTOUR LINES to be charted shall be . . . 2, 5, 10, 20, 30, 50, 100, 200, 300, 400, 500, 1,000, 2,000 metres". [p. 4-11.] Thus, it would appear that it is Canada's depiction of a 60-meter-depth contour that is a departure from standard practice. *See* Annex 16.

B. The Scientific Data Confirm the Existence of Three Separate and Identifiable Oceanographic and Ecological Regimes in the Gulf of Maine Area

215. The Northeast Channel is not only a natural geomorphological boundary [1]. As the United States has shown, it also marks a natural division in the water column between separate and identifiable oceanographic and ecological regimes. There are in fact three such regimes in the Gulf of Maine area, each with a different pattern of water circulation, temperature, salinity, density, vertical stratification, and tidal action [2]. At every level of the food chain (phytoplankton, zooplankton, and benthos), separate ecological communities have developed within these regimes [3]. Canada attempts to obscure the existence of the separate and identifiable regimes by focusing upon similarities among these regimes and upon differences between the Gulf of Maine area as a whole and other areas. Canada fails to discuss, however, the important differences within the Gulf of Maine area that define the three regimes. For example, Canada emphasizes the differences in temperature between the Gulf of Maine area as a whole and the regions beyond, but belittles the significant temperature differences that exist among the three separate and identifiable oceanographic regimes within the Gulf of Maine area itself [4]. Similarly, Canada finds a "single, integrated tidal regime" in the area—which is certainly correct, since the entire North Atlantic Ocean responds to the moon's gravitational pull—but ignores the important differences in the tidal movement in each of the three regimes that result from the interaction of tide and geomorphology [5]. In discussing the ecology, Canada uses data on the distribution of benthos and fish selectively in an effort to make the marine environment in the area appear uniform and thereby to obscure the division of the area into three separate and identifiable ecological regimes [6].

[1] Annex 26 to this Reply is a critique of the analysis in the Canadian Counter-Memorial of the geomorphology in the Gulf of Maine area.

[2] United States Counter-Memorial, Annex 1, Vol. IA, paras. 11-40.

[3] United States Memorial, paras. 47-51; United States Counter-Memorial, Annex 1, Vol. IA, paras. 41-51.

[4] Canadian Counter-Memorial, para. 184. The temperature differences among regimes are discussed in the United States Counter-Memorial, Annex 1, Vol. IA, paras. 18-21. Annex 25 to this Reply is a critique of Canada's discussion of temperature and salinity data.

[5] Canadian Counter-Memorial, para. 186. The difference in tidal movements is discussed in the United States Counter-Memorial, Annex 1, Vol. IA, paras. 38-40.

[6] Annexes 23 and 24 are critiques of the analyses in the Canadian Counter-Memorial of data relating to the distribution of fish species and benthos in the Gulf of Maine area.

216. The ocean is constantly in flux, but the oceanographic processes repeat themselves year after year. Patterns of water circulation and mixing, temperature, and salinity remain essentially the same. In the Gulf of Maine area, they are influenced by the peculiar geomorphological features. The distribution patterns of the flora and fauna that are dependent upon these oceanographic processes likewise basically repeat themselves from year to year. Thus, Canada misses the point when it criticizes the satellite image in the United States Memorial as merely a "snapshot of a highly complex and variable ocean system at a given instant [1]".

217. Figure 6 of the United States Memorial, which is the subject of Canada's criticism, shows the phytoplankton concentration on 14 June 1979. In fact, this "snapshot" illustrates the pattern of phytoplankton production for the middle of every year, not for 1979 alone. Figure 12 demonstrates the remarkable annual consistency of the marine environment by showing satellite images of phytoplankton in June or July of four different years from 1979 to 1983 [2]. In all four images, the Georges Bank regime is clearly distinguishable from the regimes of the Gulf of Maine Basin and the Scotian Shelf. In June and July, high phytoplankton production occurs on Georges Bank and Nantucket Shoals, on the southwestern tip of the Scotian Shelf, and on the well-mixed areas along the coast. To complete the picture, Figure 13 shows the annual cycle of phytoplankton production through a series of 12 satellite images (one for each month of the year) [3]. Together these images show how the marine environment moves through predictable annual cycles [4].

[1] Canadian Counter-Memorial, para. 194.

[2] These images are for 7 July 1979, 26 July 1980, 11 July 1981, and 30 June 1983. Unfortunately, it is not possible to obtain images for precisely the same day and hour for each year, because clouds frequently prevent the satellite from obtaining a satisfactory image, and because, since late 1982, the satellite has not collected data on as regular a basis as previously. There is no image for 1982 in this Figure, because all images from June and July of 1982 were obscured by clouds. These images all were taken within the period from the end of June to the end of July, and they show the repetitiveness of the natural phenomena. Canada noted that satellite images do "not distinguish between suspended mud or silt and chlorophyll". [Canadian Counter-Memorial, para. 194.] As the United States noted in Annex 1 to its Counter-Memorial, this distinction only occurs inshore, where the presence of other pigments may exaggerate the abundance of phytoplankton. [United States Counter-Memorial, Annex 1, Vol. IA, para. 45, n. 2.]

[3] 23 Jan. 1979, 4 Feb. 1979, 22 Mar. 1979, 25 Apr. 1979, 7 May 1979, 14 June 1979, 7 July 1979, 31 Aug. 1979, 17 Sep. 1979, 19 Oct. 1979, 3 Nov. 1978, 12 Dec. 1979. The November image is from 1978, because all images from November of 1979 were obscured by clouds.

[4] Similar satellite images of temperature for four consecutive Junes and for the 12 months of the year are found in Annex 25 to this Reply.

C. The Northeast Channel Separates Most Commercially Important Fish Stocks in the Gulf of Maine Area

218. The United States has demonstrated that the Northeast Channel separates stocks of 12 of the 16 commercially most important species in the Gulf of Maine area [1], and that both the equidistant line and the Canadian line would slice through, rather than between, these 12 important stocks [2]. The United States also has demonstrated that the management of transboundary stocks by agreement between States is inherently difficult, often unsuccessful, and potentially productive of disputes [3]. A boundary that uses the Northeast Channel would facilitate effective fishery conservation and management in the area, whereas a boundary across Georges Bank would impede such efforts.

219. Canada is not in a position reasonably to argue that the Northeast Channel is not a natural boundary. For over 50 years, under NACFI, ICNAF, and NAFO, in its own domestic fishery management program, and even as reflected in materials deposited by Canada with the Court, Canada has recognized, and its fishery scientists have helped to prove, that the Northeast Channel does indeed separate most of the commercially important fish stocks in the area [4]. Nonetheless, in its Memorial and Counter-Memorial, Canada attempts to disclaim what for decades it has accepted and incorporated into its own practice.

220. First, Canada attacks the concept of a stock, calling it an " '*abstract*' " term of "misplaced concreteness" that ill fits the "untidy" world of nature's realities [5]. These statements are contradicted by Canada's eloquent advocacy of the concept of a stock at the Third United Nations Conference on the Law of the Sea and by Canada's extensive reliance upon the stock concept in its international and domestic management programs. Annex 20 to this Reply recalls some of Canada's past affirmations that the concept of a stock is an important reality, that stocks must be managed as units, and that the areas inhabited by coastal stocks are usually well-defined [6].

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(23) [1] United States Memorial, para. 55 and Fig. 7; United States Counter-Memorial, Annex 1, Vol. IA, paras. 76-99.

(42) [2] United States Memorial, paras. 318 and 323, and Fig. 36; United States Counter-Memorial, Part III, Chapter III, Section 7.

[3] *See* United States Counter-Memorial, Part III, Chapter III, Section 7.

[4] United States Counter-Memorial, para. 45, n. 3, and Annex 1, Vol. IA, Appendices A-H.

[5] *Canadian Counter-Memorial, paras. 209 and 210. [Emphasis in original.]*

[6] As Annex 20 demonstrates, the concept of a stock is generally recognized as a practical and effective one for purposes of fishery management.

221. Second, Canada confuses the issue of stock separation by introducing irrelevant assertions regarding species distribution and biomass aggregates. The Canadian Counter-Memorial states that "[s]tudies of the limits of distribution of commercially important species provide no support" for the theory that the Northeast Channel is a natural boundary between Georges Bank stocks and Scotian Shelf stocks [1]. Canada's assertions concerning species distribution, which often are incorrect [2], have nothing to do with fishery management. Herring, for example, exist on both Georges Bank and the Scotian Shelf, and throughout most of the North Atlantic. Nevertheless, because the herring stocks are separate, the harvest of Georges Bank herring does not affect the abundance of Scotian Shelf herring, and vice versa. In fact, overfishing largely destroyed the Georges Bank herring stock in the 1970s, while the Scotian Shelf stocks remained commercially viable [3].

222. Canada's data concerning "aggregate biomass distribution" are similarly irrelevant [4]. The United States agrees that groundfish are abundant throughout the Gulf of Maine area, including on both the Scotian Shelf and Georges Bank, although, as Canada itself has illustrated in Figure 24 of its Counter-Memorial, there are concentrations of groundfish on the northeast tip of Georges Bank and a relative scarcity of groundfish in the Northeast Channel. The abundance of a particular species on both Georges Bank and the Scotian Shelf does not of itself indicate whether there is one stock or several. There are a wide range of scientifically accepted tests to identify separate stocks. The United States has indicated in its Counter-Memorial the tests by which the existence of separate stocks on Georges Bank and the Scotian Shelf has been determined [5].

223. Third, Canada often confuses the exception with the rule. For practical, fishery management purposes, stocks may be defined as separate if the fishing of one stock does not affect the abundance of the other. Thus, the harvest of an occasional stray fish, the intermingling of larvae, or the intermingling of stocks at various times during their life cycles, does not affect their status as separate stocks, provided that the harvest of one stock does not affect materially the harvest of the other stock. As stated by Dr. John Gulland, a British fishery scientist whose works have been

[1] Canadian Counter-Memorial, para. 200.

[2] *See* Annex 23. To the extent that the ranges of some species do end in the Gulf of Maine area, this occurs at the Northeast Channel, and not at the Great South Channel. United States Counter-Memorial, Annex 1, Vol. IA, paras. 104-113.

[3] United States Counter-Memorial, Annex 1, Vol. IA, para. 82.

[4] Canadian Counter-Memorial, paras. 225 and 226, and Fig. 24.

[5] United States Counter-Memorial, Annex 1, Vol. IA, para. 75, and Table B, p. 97.

cited by Canada in this case [1], "[a] group of fish can be treated as a unit stock if the results of assessments and other population studies in which it is treated as a unit stock do not diverge *significantly* from the real situation [2]."

224. The United States examined 16 commercially important species and established that the Northeast Channel limits the range of stocks of 12 of these species [3]. Although Canada previously has recognized a division at the Northeast Channel for 11 of these 12 species [4], it now contends that the Channel separates stocks of only one of the 12 species, yellowtail flounder [5]. Canada seeks to support its contentions with a discussion of the cod, herring, scallop, and lobster stocks in the Gulf of Maine area [6]. Annex 21 to this Reply reveals that, at several points, Canada based its arguments for each of those species upon a misreading of the materials cited [7]. The Annex also explains how Canada has confused the exception with the rule, as in the following example concerning lobster.

225. The Canadian Counter-Memorial cites a study involving the tagging and release of 28,226 lobster in the area off Port Maitland, Nova Scotia, over a period of 35 years [8]. According to the study, some 14,000 of the lobster were recaptured. A reading of the study discloses, however, that, of these, 80.8 per cent were recaptured inside the area in which they were released, 95.4 per cent were recaptured within 18.5 kilometers of the release area, and 4.1 per cent were recaptured farther away, mostly inshore. As the study records, only two adventurous lobster, out of the 14,000 recaptured, were found on Georges Bank. For fishery managers, these facts confirm the existence of separate stocks: i.e, that lobster fishing off Port Maitland will not affect the abundance of lobster on Georges Bank or along the coast of Maine. Canada, however, has presented a chart in the Annexes to its Counter-Memorial with arrows drawn to the 30 most far-flung of the 14,000 recaptured lobster,

[1] Canadian Counter-Memorial, para. 414, n. 98.

[2] J.A. Gulland, *Guidelines for Fishery Management*, 1974, p. 2. [Emphasis added.] Annex 17.

(23) [3] United States Memorial, paras. 55-57 and Fig. 7; United States Counter-
(123)-(134) Memorial, Annex 1, Vol. IA, paras. 76-103 and Figs. 29-50.

[4] In this regard, *see* United States Counter-Memorial, para. 45 and n. 3.

[5] Canadian Counter-Memorial, para. 212(g).

[6] Canadian Counter-Memorial, paras. 213-224.

[7] Annex 21 contains a critique of the analysis in the Canadian Counter-Memorial of the stock divisions of cod, herring, scallops, and lobster in the Gulf of Maine area.

(90) [8] Canadian Counter-Memorial, Annexes, Vol. I, para. 131(b) and Fig. 41. This study, "Movements of Tagged Lobster Released off Port Maitland, Nova Scotia, 1944-1980", by A. Campbell, is discussed in Annex 21.

purporting to demonstrate "*extensive migration* . . . throughout the Gulf of Maine area [1]". In fact, these 30 lobster constitute only two-tenths of one per cent (0.002) of the tag returns.

226. Fourth, in its Counter-Memorial, Canada introduces 12 additional but irrelevant species, which are examined in Annex 22 to this Reply. All 12 are of minor commercial importance in the area in dispute in this case. Seven of the 12 would range across any potential boundary. Both Atlantic salmon and American shad, for example, migrate throughout the area. Moreover, they are harvested inshore and not, to any significant degree, in the disputed area on Georges Bank. Atlantic salmon, in fact, are the subject of a separate multinational Convention that prohibits harvesting beyond 12 nautical miles from the territorial sea baselines [2]. Stocks of the five remaining additional species divide naturally at the Northeast Channel. Furthermore, Canada does not include in its list other species that are commercially as important as its 12 additional species and that are separated at the Northeast Channel [3].

227. *The extent to which the Northeast Channel is a natural boundary for fishery stocks may be summarized as follows:*

(a) there are approximately 16 commercially important species in the Gulf of Maine area [4];

(b) the Northeast Channel separates stocks of 12 of these commercially important species [5], whereas the equidistant line and the Canadian line would cut through the Georges Bank stocks of these 12, and, indeed, of all 16 commercially important species [6];

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(90) [1] Canadian Counter-Memorial, Annexes, Vol. I, Fig. 41. [Emphasis added.]

[2] Convention for the Conservation of Salmon in the North Atlantic Ocean, Art. 2 [ratified by Canada, the European Economic Community, Iceland, Norway, and the United States.]

[3] These omitted species are summer flounder, windowpane flounder, ocean pout, tilefish, wolffish, winter skate, little skate, and bluefish. Annex 22.

[4] *See* United States Memorial, paras. 55-57; United States Counter-Memorial, Annex 1, Vol. IA.

(23) [5] United States Memorial, para. 55 and Fig. 7; United States Counter-Memorial, Annex 1, Vol. IA, paras. 76-99. These 12 commercially important species are: cod, herring, haddock, silver hake, red hake, white hake, redfish, yellowtail flounder, sea scallops, lobster, cusk, and longfin squid. The Northeast Channel represents the northeastern limit of distribution for the longfin squid. There is a stock of longfin squid on Georges Bank, but none on the Scotian Shelf. Thus, for longfin squid, the Northeast Channel represents a stock boundary, but not a stock division.

(42) [6] United States Memorial, paras. 318 and 323, and Fig. 36.

(c) there are four commercially important species [1] that are not separated naturally at the Northeast Channel, nor at the Canadian line, nor at the equidistant line—stocks of these species range across any line of delimitation in this case [2];

(d) Canada lists 12 additional species [3], which are of minor commercial significance in the area; seven of these 12 additional species are migratory, and stocks of these seven will range across any line of delimitation [4];

(e) the Northeast Channel separates concentrations of the remaining five of the additional 12 species [5], whereas the equidistant line and the Canadian line would cut through concentrations of these five species;

(f) concentrations of at least seven other species of comparable commercial significance to Canada's 12 additional species are separated naturally at the Northeast Channel [6]; the equidistant line and the Canadian line would cut through concentrations of these seven species.

SECTION 6. Both the Equidistant Line and Canada's Line Disregard the Predominant Interest of the United States in Georges Bank

A. The History of the Fishing Activities of the Parties Confirms the Predominant Interest of the United States in Georges Bank

228. In its Memorial and Counter-Memorial, the United States has documented important United States fisheries on Georges Bank that have flourished since the early 19th century [7]. Canada cannot credibly deny the existence of these United States fisheries, but in its pleadings has sought to create established historical Canadian fisheries on Georges Bank, when in fact no significant fishery existed until recently.

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[1] These are mackerel, pollock, argentine, and shortfin squid.

(23)(42) [2] United States Memorial, para. 56, and Figs. 7 and 36.

[3] Canada lists these additional 12 species in Vol. I of the Annexes to its Counter-Memorial, at para. 121, n. 12.

[4] These are bluefin tuna, Atlantic salmon, swordfish, spiny dogfish, alewife, American shad, and saury. *See* Annex 22.

[5] These are winter flounder, American plaice, butterfish, goosefish, and witch flounder. *See* Annex 22.

[6] These are summer flounder, windowpane flounder, ocean pout, tilefish, winter skate, little skate, and bluefish. *See* Annex 22.

[7] United States Memorial, paras. 59-88; United States Counter-Memorial, paras. 61-76. Annex 28 to this Reply is a critique of Canada's analysis of the historical and recent fishing activities of United States fishermen on Georges Bank.

229. As the United States has stated, Georges Bank was fished "almost exclusively" by the United States prior to the 1950s [1]. The United States acknowledges that fishermen of other States, including Canada, may have fished occasionally on Georges Bank [2]. This conclusion is confirmed by Canada's Counter-Memorial. After combing all available evidence, searching through decades of newspapers, and canvassing the Nova Scotia fishing community, Canada has been able to demonstrate only that, up to 1950, approximately 85 Canadian vessels visited Georges Bank at one time or another [3]. Annex 29 examines in more detail the evidence adduced by Canada.

230. Although Canada began to keep statistics of its fisheries in 1867, it can offer no statistical evidence of the purported Canadian fishing on Georges Bank during this period. In 1950, Canada was able to supply ICNAF with records dating as far back as 1869 of Canadian catches in Subarea 3 (off Newfoundland) and Subarea 4 (off Nova Scotia), but Canada produced no records of any catches from Subarea 5 (off New England) [4]. Although the definitive studies of the Northwest Atlantic fishery prior to 1950, written by both United States and Canadian historians, all recognize the importance of the United States fisheries on Georges Bank, none makes any mention of a Canadian fishery on Georges Bank [5]. Nor does Mr. F.W. Wallace, Canada's leading fishery editor in the first half of the twentieth century, mention Georges Bank in his review of the Canadian Atlantic fisheries [6]. Had there been the Canadian Georges Bank fisheries that Canada has described in its Memorial and Counter-

[1] United States Memorial, paras. 60-79; United States Counter-Memorial, paras. 58-66. *See* Annex 28.

[2] United States Memorial, para. 298; United States Counter-Memorial, para. 64.

[3] These vessels did not always come to fish. For example, Canada asserts that the fishing schooner *Grace and Ruby* fished extensively on Georges Bank during the 1920s. This vessel, however, found its way into United States law books as a smuggler. This notorious case is discussed in P.C. Jessup, *The Law of Territorial Waters and Maritime Jurisdiction*, 1927, pp. 242-247. *See* Annex 29, A Critique of the Evidence in the Canadian Counter-Memorial Regarding Canada's Historical Fishing Activities on Georges Bank, at Appendix B.

[4] United States Memorial, Annex 46, Vol. III; United States Counter-Memorial, para. 61.

[5] *See* G.B. Goode, *The Fisheries and Fishery Industries of the United States*, 1887; R. McFarland, *A History of New England Fisheries*, 1911; R. Grant, *The Canadian Atlantic Fishery*, 1931; H.A. Innis, *The Cod Fisheries: A History of an International Economy*, 1940; E.A. Ackerman, *New England's Fishing Industry*, 1941; and S.E. Morison, *The Maritime History of Massachusetts: 1783-1860*, 1979. All of these works previously have been deposited with the Court pursuant to Article 50(2) of the Rules of Court.

[6] *See* United States Counter-Memorial, paras. 64-66.

Memorial [1], they surely would have found a place, along with Canada's other fisheries, in the history books and in the records supplied by Canada to ICNAF.

231. Canada began sustained fishing on Georges Bank on a small scale in the 1950s. The Canadian fishery did not become significant until the 1960s, at about the time that other foreign fleets arrived on Georges Bank. Third-State fishing became subject to United States jurisdiction with the establishment of 200-nautical-mile fishing zones. Canada's fishing on Georges Bank has outlasted third-State fishing there only because of Canada's boundary claim. Even since 1950, and notwithstanding the recent Canadian fishery, the United States never relinquished its predominant interest in the Georges Bank fisheries, as evidenced both by catch statistics [2] and by the history of the Parties' activities under ICNAF [3]. In the ICNAF Panel for Subarea 5, which included Georges Bank, the United States provided the leadership, conducted most of the research and enforcement, proposed most of the management measures, and received the preponderance of allocations based upon coastal-State preference. Canada, by contrast, assumed the leadership role and concentrated its resources in the areas of its predominant interest, ICNAF Subareas 3 (off Newfoundland) and 4 (off Nova Scotia).

B. Agreements Concluded by the Parties Confirm the Predominant Interest of the United States in Georges Bank

232. In its Memorial and Counter-Memorial, the United States documented its dominant role in the Georges Bank area in charting and surveying, in providing other aids to navigation, in conducting scientific research and search and rescue operations, and in undertaking defense responsibilities [4]. Significantly, whenever the Parties concluded an agreement allocating responsibilities in the Gulf of Maine area, they divided responsibility in the vicinity of the Northeast Channel [5]. The United States does not contend that the lines that are displayed in its Memorial evidence Canadian acquiescence in United States jurisdiction, or that the lines were intended to be maritime boundaries for purposes of marine

[1] In its Counter-Memorial, Canada claims that United States "dominance" of the Georges Bank fishery *"is largely a myth of its own fabrication"*. Canadian Counter-Memorial, para. 324. The facts indicate that such rhetoric is more aptly applicable to the description of the purported historical fisheries of Canada contained in the Canadian Counter-Memorial. *See* Annex 29.

(98)(99) [2] United States Counter-Memorial, Figs. 9 and 10.

[3] United States Counter-Memorial, Annex 3, Vol. II.

[4] United States Memorial, paras. 102-132. Annex 30 to this Reply corrects factual errors in the Canadian Counter-Memorial concerning defense responsibilities.

(24)(25)(27)(28)(102)-(105) [5] United States Memorial, Figs. 8, 9, 13, and 14; United States Counter-Memorial, Figs. 14, 15, 16, and 17.

resources. The lines do indicate, however, that the Parties understood that the Georges Bank area was linked more intimately to the United States than to Canada, at least for the specific purposes involved.

233. The "lines" that Canada has presented to the Court were never (78) the subject of agreement between the Parties. For example, Figure 53 of the Canadian Counter-Memorial shows a division between United States offshore petroleum *leases* and Canadian offshore oil and gas exploration permits approximately along the middle of Georges Bank. This Figure, however, does not tell the full story of the Parties' activities. United States *permits* for seismic research covered the whole of the Bank, and considerable research was conducted pursuant to these permits. The United States scheduled lease sales included tracts located in the disputed area, but, as an act of restraint, the United States withdrew these tracts pending negotiation and, subsequently, adjudication, of the boundary. For its part, Canada waived the work requirements that normally would apply to its permits; as a result, no significant work, and no drilling, have been conducted pursuant to these permits. Accordingly, there is no "line" that has divided the Parties' continental shelf activities, such as that in the *Tunisia/Libya* case [1].

[1] In the *Tunisia/Libya* case, the Court found that each Party independently had chosen roughly the same line to bound the area in which it issued oil concessions; that each Party authorized exploration activities up to that line; and that oil wells were drilled without interference and, for a time, without protest by the other. [*I.C.J. Reports 1982*, pp. 83-84, para. 117.] Canada's equidistant line more closely corresponds to both the "ZV 45° north-east" line claimed by Tunisia and the northward line claimed by Libya under its petroleum law to be a continuation seawards of the last segment of the land frontier. The Tunisian and Libyan lines, like Canada's line, were not agreed upon, but were established only by unilateral action; they therefore were held not to be opposable to the other Party. [*I.C.J. Reports 1982*, p. 66, para. 87; p. 68, para. 90; and p. 69, para. 92.] As the Court explained, "an attempt by a unilateral act to establish international maritime boundary lines regardless of the legal position of other States is contrary to recognized principles of international law. . .". [*I.C.J. Reports 1982*, p. 66, para. 87.]

CHAPTER IV

IN THE CIRCUMSTANCES OF THIS CASE, A LINE FROM THE AGREED STARTING POINT GENERALLY PERPENDICULAR TO THE GENERAL DIRECTION OF THE COAST, BUT ADJUSTED TO PRESERVE THE INTEGRITY OF SEPARATE AND IDENTIFIABLE FISHING BANKS, IS CONSISTENT WITH THE SPECIAL AGREEMENT AND PRODUCES AN EQUITABLE SOLUTION

234. In the Gulf of Maine area, proper application of a perpendicular to the general direction of the coast will ensure that a delimitation in this case does not cut off the extension of the primary coastal front of either the United States or Canada into the sea.

235. This chapter addresses four separate points raised by Canada: (1) whether the use of the perpendicular method and the United States claim *in this case* are consistent with the Special Agreement between the Parties; (2) whether the use of a perpendicular is a lawful and appropriate method for the delimitation of this and other single maritime boundaries; (3) whether the method of applying a perpendicular to the general direction of the coast respects the coastal fronts of the Parties; and (4) whether the application of a perpendicular can be adjusted so as equitably to take account of the special circumstances in this case.

SECTION 1. The Perpendicular Method and the United States Claim Are Consistent with the Special Agreement

236. Canada asserts that the Special Agreement pursuant to which this case has been brought before the Court precludes the application of a perpendicular to the general direction of the coast. In raising this argument, Canada attributes to various provisions of the Special Agreement meanings that, if accurate, would reflect prior United States acceptance of the very Canadian positions that go to the merits of this dispute [1]. No such acceptance ever occurred or was intended. The Special Agreement is, in the words of Canada, the "procedural device [2]" by which the Parties brought this case before the Court. Had the intent or the effect of that Agreement been to prejudice the merits of this case, the Party adversely affected most certainly would not have ratified it.

[1] Canadian Counter-Memorial, paras. 87, 88, 106, and 647.

[2] Canadian Counter-Memorial, para. 611.

A. The Starting Point

237. Under the Special Agreement, the Court is to begin the delimitation of the single maritime boundary at the starting point set forth in Article II of that Agreement. Canada states that the Parties "have thus recognized that it is the opposite coasts of Maine and Grand Manan Island and of Maine and Nova Scotia that should control the course of the line . . . [1]". Canada also asserts that the relation between the starting point and the international boundary terminus "reflects the common view of the Parties . . . that the boundary inside the Gulf of Maine itself should run in a generally southwesterly direction [2]". To the extent these statements purport to represent United States intentions or views, they are incorrect. That Canada sees fit to assert a common view when clearly no such view could have existed under the circumstances is, to borrow a phrase from the Canadian Counter-Memorial, "tendentious in the extreme [3]".

238. The starting point is located at the initial intersection of the 1976 claims of the Parties seaward of Machias Seal Island. The United States and Canada dispute sovereignty over Machias Seal Island (and North Rock) [4]. Inasmuch as no agreement was reached to submit that particular dispute to the Court, the Parties specifically formulated the question to be presented to the Court so as not to prejudice their respective views concerning sovereignty over Machias Seal Island and North Rock.

239. The position of the starting point bears no relationship whatever to the direction of the boundary that the Court is to delimit in this case or to the coastlines that influence that delimitation. The most that can be said concerning the Special Agreement in this regard is that the United States has conceded to Canada that the delimitation is to begin 32 nautical miles to the United States side of the land boundary [5]. By virtue of the location of the starting point and the application of the perpendicular from that point, the boundary proposed by the United States already grants to Canada's secondary coastal front facing the Gulf of Maine much of that part of the southwestern Scotian Shelf that also lies in front of the United States coast.

[1] Canadian Counter-Memorial, para. 647.

[2] Canadian Counter-Memorial, para. 88.

[3] Canadian Counter-Memorial, para. 31.

[4] The United States formally proposed on 27 June 1973 to submit this sovereignty dispute to binding settlement before the Court. [*Digest of United States Practice in International Law*, Dept. of State, 1973, pp. 465-67.] Canada rejected the proposal. [*See* Aide-Memoire from Embassy of Canada to the Dept. of State, 4 Jan. 1974; and Aide-Memoire from the Dept. of State to Embassy of Canada, 22 Apr. 1974. Annex 18. *See also Digest of United States Practice in International Law*, Dept. of State, 1974, pp. 672 and 673.] No aspect of this case may prejudice the sovereignty of the United States over Machias Seal Island and North Rock.

[5] United States Counter-Memorial, para. 395.

B. THE TRIANGLE

240. Canada is also off the mark concerning the negotiation and meaning of the triangle referred to in Article II of the Special Agreement. Canada states in its Counter-Memorial:

> "... the triangle was constructed so as to include three points: the two points where the Canadian and United States claims (as they stood at that time of signature of the Special Agreement) intersect the outer limits of the Parties' 200-mile zones, and the point at which the outer limits of these zones intersect each other [1]".

241. In fact, the purpose of the triangle was to avoid the question of the definition of the outer edge of the continental margin. The Parties did not agree on the extent of the margin and decided not to place that question before the Court. Furthermore, Canada's claim that the boundary proposed by the United States does not intersect the 200-nautical-mile limit within the triangle [2] is irrelevant under the terms of the Special Agreement. There is no relationship between the triangle and the 200-nautical-mile limit.

242. There is no requirement in the Special Agreement that the Court fully delimit the 200-nautical-mile limit of either Party. Both Parties have stated that no point in the triangle is entitled to greater weight than any other [3]. There are many points in the triangle at which the Court could terminate this delimitation where neither State's 200-nautical-mile zone would be delimited fully. For instance, were the Court to end its delimitation at any point on the hypotenuse of the triangle between the claims of the Parties, neither State's 200-nautical-mile zone would be delimited completely. Further negotiations between the Parties would be required to complete the final step of extending the line determined by the Court to a distance of 200 nautical miles and then beyond to the edge of the continental margin [4].

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[1] Canadian Counter-Memorial, para. 23.

[2] Canadian Counter-Memorial, para. 24.

[3] The Canadian Memorial, at para. 12, states:

> "The Court ... may fix the seaward terminal point ... at any point in the triangle. ... There is no other significance in the use of this device or in the configuration of the triangle itself; it was chosen simply as a convenient, neutral technique that accomplishes the task of indicating clearly where the adjudicated boundary is to end."

See also United States Memorial, para. 4, n. 1.

[4] The Court referred to this matter in a letter of 18 Dec. 1981 transmitted to the Agents of the Parties. The Agents responded to the Court's questions in a letter dated 6 Jan. 1982. *See* paras. 7 and 8 of the Order of 20 January 1982 in this case. *I.C.J. Reports 1982*, pp. 3, 4-8.

C. The "Grey Area"

243. Canada also overlooks the fact that the Parties provided a means in the Special Agreement for dealing with the issue of the so-called "grey (71) area" (*see* Figure 43 of the Canadian Counter-Memorial), as well as with other issues that may arise in extending the boundary seaward of the point where the Court ends its delimitation. By Article VII of the Special Agreement, the Parties are required to attempt to settle between themselves questions concerning the delimitation of the boundary farther seaward, following the decision of this Court [1]. Should they fail to agree, either Party may submit such questions to this Court under the terms of the Special Agreement.

244. Canada appears to raise the "grey area" issue in another attempt to support an equidistant line. Any lateral boundary delimiting the 200-nautical-mile zone that is not a precise equidistant line will create an area—Canada's "grey area"—that is within 200 nautical miles of the coast of one Party and beyond 200 nautical miles of the other, and that is not attributed to either State by that boundary. Indeed, inasmuch as Canada itself has not proposed a strict equidistant line, but rather a modified equidistant line, a "grey area" would exist were its claim to prevail in this case. A "grey area" also will exist if the United States claim prevails.

245. The international community long has recognized the question of the "grey area". The same argument that Canada has advanced was raised by Norway in the *Grisbadarna* case [2], but was rejected by the

[1] Article II of the Special Agreement is specific in submitting the question of "*the course* of the single maritime boundary" to the Court. [Emphasis added.] Article VII is more general in providing for negotiations between the Parties following the decision of the Chamber "directed toward reaching agreement *on extension* of the maritime boundary as far seaward as the Parties may consider desirable". [Emphasis added.] All relevant issues may be addressed in such negotiations, and are not foreclosed in any way, contrary to the suggestion at para. 573 of the Canadian Counter-Memorial. In particular, the Special Agreement does not, as Canada might be understood to intimate, preclude any particular solution to the "grey area" issue that is at that stage satisfactory to both sides. The Parties will have every reason to seek to maximize the advantages, and to minimize the disadvantages, to each of them in the course of such negotiations. It may, moreover, be of considerable importance to both Parties in these negotiations to consider the extent, if any, of their obligations to third States in the "grey area".

[2] Norway argued for the application of equidistance in the *Grisbadarna* case. [Norwegian Memorial (German version), pp. 12 and 13.] The Norwegian Memorial noted that, by using the equidistance method, the terminal point of the line of division coincided with the point of intersection of the two arcs that form the southernmost limit of the Swedish territorial sea and the northernmost limit of the Norwegian territorial sea, whereas the course of a dividing line, different from the

(footnote continued on next page)

(72) Arbitral Tribunal. As Canada has shown at Figure 44 of its Counter-Memorial, S. W. Boggs, then Geographer of the United States Department of State, dealt with this issue in connection with the use of the equidistance method in the territorial sea. The issue of the "grey area", which essentially is one of precision and geographical "tidiness", was not enough to deter Boggs, or others that followed him, from concluding that application of the equidistance method gives rise to inequitable solutions. If the application of the equidistance method achieves an inequitable result, a different delimitation method must be employed and any "grey area" dealt with separately by the Parties.

SECTION 2. An Adjusted Perpendicular to the General Direction of the Coast Is an Appropriate Method for the Delimitation of a Single Maritime Boundary in Complex Geographical Circumstances Such As Those in the Gulf of Maine Area

246. Canada's criticisms of the application of a perpendicular to the general direction of the coast in this case are essentially twofold. First, Canada asserts that the general direction of the coast is difficult to determine [1]. Second, Canada asserts that the complex geographical situation in the Gulf of Maine area makes it inappropriate to apply a perpendicular [2]. Neither assertion is valid.

247. With respect to the first point, Canada nonetheless was able to overcome the difficulties that it otherwise cited and has claimed that the general direction of the coast in the Gulf of Maine area is 67 degrees. The United States finds the most reasonable and correct azimuth of that general direction to be 54 degrees. Thus, both Parties believe that the general direction of the coast in the relevant area can be determined.

248. The determination of the general direction of the coast, although necessarily involving a degree of subjectivity, is within the Court's competence. The Court specifically identified such a general direction in the *Tunisia/Libya* case [3]. It also called for such determinations in the *North Sea Continental Shelf* cases [4]. The award in the *Grisbadarna* case

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(footnote continued from the previous page)

equidistant line, would leave an area of the open sea not belonging to either State. Sweden replied to the argument in its Counter-Memorial [German text, p. 311], pointing out that the Arbitral Tribunal had to decide the course of the boundary between the two States, and not the extent of the respective territorial seas or the endpoints for the outer limits of such territorial seas. [*Ibid.*, p. 312.] For full citations to the pleadings in the *Grisbadarna* decision, *see* United States Memorial, p. 104, n. 2.

[1] Canadian Counter-Memorial, para. 94.

[2] Canadian Counter-Memorial, paras. 646 and 647.

[3] *I.C.J. Reports 1982*, p. 71, para. 120.

[4] *I.C.J. Reports 1969*, p. 53, para. 98.

is based upon such a finding [1]. In the *Anglo-Norwegian Fisheries* case [2], and subsequently in Article 4 of the Convention on the Territorial Sea and the Contiguous Zone [3], the concept of the general direction of the coast became an important element in the straight-baseline method.

249. The general direction of the coast reflects the geographical relationship between States. A perpendicular to that general direction, drawn from the international boundary terminus, normally will indicate the area that lies in front of the coast of each State. The application of a perpendicular to the general direction of the coast therefore is associated closely with coastal fronts and their extension into the sea.

250. The United States disagrees with Canada's argument that this method cannot be applied in complex geographical circumstances. Quite to the contrary, because the perpendicular method takes account of the general geographical relationship of States, it has the benefit of simplifying complex geographical situations. For instance, even were Canada's proposed general direction of 67 degrees to be adopted, the resulting perpendicular to the general direction of the coast would respect more accurately and equitably the coastal fronts of the Parties than would Canada's application of the equidistance method [4]. Notwithstanding Canada's assertions, the advantage that the perpendicular method enjoys over the equidistance method is precisely its equitableness under the geographical facts of this case. The method is based upon the general geographical relationships of the coasts, rather than upon the arbitrary location of two isolated, protruding points on the respective coastlines of the Parties.

SECTION 3. There Are Primary and Secondary Coastal Fronts in the Gulf of Maine Area

251. Canada criticizes the use by the United States of the terms "primary" and "secondary" coastal fronts [5]. Canada's criticism is based upon the proposition that all coasts should be treated equally in their entitlement to maritime jurisdiction. Canada's formulation amounts to no more than yet another rationale to favor equidistance. As a general principle, comparable coasts are entitled to comparable treatment, but not

[1] Hague Ct. Rep. (Scott), 1916, p. 129 [41st Whereas]. United States Memorial, Annex 4, Vol. I.

[2] *I.C.J. Reports 1951*, pp. 140-142.

[3] United States Memorial, Annex 5, Vol. I.

(144) [4] For a chart showing the perpendicular line if the general direction of the coast were determined to be 67 degrees, rather than 54 degrees, *see* United States Counter-Memorial, Annex 12, Vol. V.

[5] Canadian Counter-Memorial, paras. 98-101.

all coasts are comparable. As the Court of Arbitration stated in the *Anglo-French Arbitration*:

> "Just as it is not the function of equity in the delimitation of the continental shelf completely to refashion geography, so it is also not the function of equity to create a situation of complete equity where nature and geography have established an inequity. *Equity does not, therefore, call for coasts, the relation of which to the continental shelf is not equal, to be treated as having completely equal effects* [1]."

The United States and Canadian coasts facing the Gulf of Maine are not equal. They are not of similar lengths and are not in the same position relative to the area seaward of the Gulf of Maine.

252. The concept of primary and secondary coastal fronts is implicit in the Court's decision in the *North Sea Continental Shelf* cases. In a coastal concavity such as the Gulf of Maine, the lateral coasts of the concavity face inward. In this case, the coast at the back of the concavity, that of Maine and New Hampshire, faces the mouth of the Gulf of Maine and fronts outward toward the open Atlantic Ocean, in the same orientation as the coastlines of the Parties outside the concavity. The coasts that face the open sea are the primary coastal fronts of the Parties. The lateral coasts of the concavity, not facing the open sea, do not have the same relevance or relationship to the area seaward of the Gulf of Maine. All of the Court's teachings to the effect that "the configuration of the latter's coast makes the equidistance line swing out laterally across the former's coastal front, cutting it off [2]" otherwise are without meaning.

253. Canada's introduction of the concept of "radial extensions" confuses proximity with the coastal fronts of the Parties. The concept is inconsistent with the oral argument of Professor Jaenicke before the Court in the *North Sea Continental Shelf* cases, where he described the coastal front as extending into the sea in a direction perpendicular to the coastal (37) front [3]. *See, e.g.*, United States Memorial, Figure 31; and United States (37) Counter-Memorial, Figure 23. Canada identifies the concept of radial

[1] *Decisions*, p. 116, para. 249. [Emphasis added.] Similarly, the Court has stated:

> "Equity does not necessarily imply equality. There can never be any question of completely refashioning nature, and equity does not require that a State without access to the sea should be allotted an area of continental shelf, any more than there could be a question of rendering the situation of a State with an extensive coastline similar to that of a State with a restricted coastline."

I.C.J. Reports 1969, pp. 49-50, para. 91.

[2] *I.C.J. Reports 1969*, pp. 31-32, para. 44.

[3] *I.C.J. Pleadings, North Sea Continental Shelf*, Vol. II, p. 40.

extensions in Figure 15 of its Counter-Memorial: "[t]he radial extension of coastal State jurisdiction in accordance with the distance principle as the legal basis of title." Figure 15 represents nothing more than arcs that converge along an equidistant line. In fact, Figure 15 clearly illustrates the operation of the cut-off effect caused by the equidistance method. The projection of the coast of the United States (green) is cut off by the lateral projection of the southwest coast of Nova Scotia (red). Consistent with Canada's position, Figure 15 does not even acknowledge the overlap of projections of the primary and secondary coastal fronts that occurs in the Gulf of Maine. As applied by Canada, this theory of "radial extensions" is simply another Canadian depiction of the equidistance method.

254. Canada stretches its concept of "radial extensions" even further, however, when it asserts that the "seaward extension of a coastal State includes all waters within 200 nautical miles of its coast, and all such areas must *prima facie* be considered legally adjacent or appurtenant to that State [1]". This broad proposition overstates the issue in the context of delimitation. Pursuant to that theory, such maritime areas as Roseway Bank, LaHave Bank, German Bank, Browns Bank, and the Bay of Fundy are "legally adjacent or appurtenant" to the United States. Figure 14.

255. The issue in a delimitation is the manner in which the boundary should be drawn in areas where the seaward extensions of coastal fronts may overlap. Where the land boundary meets the sea in a corner of a coastal concavity, both jurisprudence and State practice have concluded that an equidistant line should not be used, because a secondary coastal front of one State causes such a line to swing out across the primary coastal front of another State and to cut that primary coast off from the maritime areas lying in front of it.

SECTION 4. The Perpendicular Method Is Easily Adjusted to Take Account of Relevant Circumstances

256. Application of a perpendicular to the general direction of the coast in the Gulf of Maine area is flexible and does not suffer the mathematical rigidities of the equidistance method. There is a range in determining the general direction of the coast—as the difference between the Parties in this respect suggests. There is also a capacity for flexibility in modifying the direction of the perpendicular a degree or two, as did the Arbitral Tribunal in the *Grisbadarna* case to avoid splitting the Grisbadarna fishing bank. Adjustments also can be made along the course of the perpendicular line, as reflected in the boundary proposed by the United States.

[1] Canadian Counter-Memorial, para. 563.

257. The adjusted perpendicular line proposed by the United States takes account of fishing banks and of the Northeast Channel. These features dominate the maritime area in which the delimitation is to take place. They are special and relevant circumstances that must be considered in producing an equitable solution. The United States line avoids crossing German Bank and Browns Bank through the use of a series of step-like turns. It is oriented parallel to the general direction of the Northeast Channel along its northeastern edge.

258. Canada finds the United States claim to be "totally divorced from its putative origin as a perpendicular to the general direction of the coast" and to be a line of "wandering perpendiculars [1]". Canada's rhetoric aside, any method or combination of methods may be used that produces a result in accordance with equitable principles. The adjusted perpendicular line is an equitable solution based upon the application of equitable principles and takes account of special and relevant circumstances, elements that are utterly lacking in the equidistant line and the modified equidistant line proposed by Canada.

259. In the Gulf of Maine area, the perpendicular method leaves to Canada areas within the Gulf of Maine where the extension of the primary coastal front of the United States overlaps with the extension of the short secondary coastal front of Canada. Seaward of the Gulf of Maine, because of the application of the equitable principles relating to resource conservation and management, the minimization of international disputes, and relevant circumstances, the adjusted perpendicular line leaves to Canada areas that do not lie in front of any part of the Canadian coast. In avoiding a line across the Scotian Shelf, the adjusted perpendicular line facilitates resource conservation and management and minimizes the potential for disputes between the Parties concerning issues of fisheries management and allocation as well as oil and gas development and its environmental consequences. The line takes account of the marine environment in not dividing the separate and identifiable ecological regime of the Scotian Shelf, and it recognizes the historical fishing activities of the Parties. Finally, the adjusted perpendicular line reflects the special features of the area, viz., the fishing banks and the Northeast Channel. Neither the equidistant line nor Canada's proposed line has any of these merits.

[1] Canadian Counter-Memorial, para. 654. Canada's criticism would seem to be directed at the step-like turns in the boundary proposed by the United States. Such a technique has been used in State practice. *See*, e.g., *Limits in the Seas*, United States Dept. of State, No. 79, Continental Shelf Boundary: Colombia-Panama, United States Memorial, Annex 82, Vol. IV. *See also* the NACFI and (24) ICNAF lines through the Northeast Channel. United States Memorial, Figs. 8 (25)(102)(103) and 9; United States Counter-Memorial, Figs. 14 and 15.

CHAPTER V

APPLICATION OF THE PROPORTIONALITY TEST TO THE DELIMITATION OF THE SINGLE MARITIME BOUNDARY IN THE GULF OF MAINE AREA CONFIRMS THAT, ALTHOUGH THE ADJUSTED PERPENDICULAR LINE PRODUCES AN EQUITABLE SOLUTION, THE CANADIAN LINE WOULD NOT

260. When applied in the Gulf of Maine area, the proportionality test confirms that the equidistant line and Canada's line would produce inequitable results. This inequity reveals itself in the calculation of the ratio between the lengths of the relevant coasts and the maritime areas in front of those coasts. Conversely, the proportionality test, when applied to the boundary proposed by the United States, or to any boundary that permits the United States coastal front its proper seaward extension, confirms that such a line would produce no disproportion or inequity.

261. In this chapter, the United States discusses the criteria that, in its view, must be applied in formulating an equitable proportionality test. The United States applied these criteria to the proportionality tests it proposed in its Memorial and Counter-Memorial [1].

SECTION 1. The Area in Which the Proportionality Test Is to Be Applied Is Not Indeterminate, as Canada Suggests

262. In Canada's view, the proportionality test should be avoided in open-ended situations, where its application is likely to be "complicated and contentious [2]". Canada argues that the Gulf of Maine area is such a situation—too indeterminate to permit the Court to calculate the ratio between relevant offshore areas and coastlines [3].

263. Rarely, if ever, has nature provided situations where the areas and coasts relevant to proportionality may be identified with precision and without disagreement. For example, in the *Tunisia/Libya* case, there were no precise criteria available to determine the relevant coasts or, contrary to Canada's assertions [4], the seaward limits of the relevant area. Nevertheless, the Court was able to apply the proportionality test. In doing so, it recognized the need to make reasonable choices concerning the limits of

(40)(41) [1] United States Memorial, Figs. 34 and 35; United States Counter-Memorial, (110)(111) Figs. 24 and 25.

[2] Canadian Counter-Memorial, para. 490.

[3] Canadian Counter-Memorial, para. 491.

[4] Canadian Counter-Memorial, para. 489.

the coasts and of the area. The lack of fixed criteria was not an insurmountable obstacle:

> "Since ... the essential aspect of the criterion of proportionality is simply that one must compare like with like, the exact method of drawing the outer boundaries is not critical, provided the same approach is adopted to each of the two coasts [1]."

264. In brief, the Court made the necessary determinations in light of the relevant circumstances of the area and respecting the requirement that it should compare "like with like [2]". In so doing, the Court experimented with alternate techniques [3]. The same commonsense approach will enable the Court to apply the proportionality test in the Gulf of Maine area.

SECTION 2. The Bay of Fundy and Its Coast Should Not Be Included in *the Calculations for the Proportionality Test*

265. A major consideration in the application of proportionality in the Gulf of Maine area is the treatment to be afforded the Bay of Fundy. If the lengths of the coastlines and the maritime areas internal to the Bay of Fundy are not counted, and the Canadian coastline is depicted by a line connecting the international boundary terminus to Cape Sable, as the United States believes is equitable in this case (and as Canada itself advocated in forming the rectangle to which it made reference in the 14 October 1977 Canadian Legal Statement), the equidistant line, as well as the Canadian line, fails any reasonable test of proportionality.

266. The area to be delimited, together with the nature and function of the proportionality test, dictate that the coasts and waters of the Bay of Fundy not be included within the test. The coasts inside the Bay of Fundy are irrelevant to the proportionality test, because they bear no relation to the area to be delimited. They do not face upon the area in which the delimitation is to take place. The area to be delimited in no sense appertains to the coasts of the Bay of Fundy [4].

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[1] *I.C.J. Reports 1982*, p. 91, para. 130.

[2] *Ibid.*, pp. 75, 76, and 91, paras. 103, 104, and 130.

[3] *Ibid.*, p. 91, para. 131.

[4] Canada long has maintained an inchoate claim that the Bay of Fundy constitutes Canadian "historic" or "internal" waters. In 1971, Canada closed off the Bay to foreign fishermen by the use of the novel technique in international practice of "fishery closing lines". [Canadian Memorial, para. 224, n. 27, and Annexes, Vol. II, Annex 24. *See* L.H.J. Legault, "Maritime Claims", in *Canadian Perspectives on International Law and Organizations*, 1974, pp. 377, 383-384, and 387. Annex 6.] The United States always has reserved its position in this respect.

267. Inclusion of the Bay of Fundy, the coasts of which face only each other and not the area in which the delimitation is to take place, would distort dramatically any calculations of proportionality, because its long coasts and relatively small water area would affect materially the ratio of coast-to-water in the area [1]. Including the lengths of the coasts on the Bay of Fundy, instead of the length of the closing line across the mouth of the Bay, may increase the calculated length of the Canadian coast twofold or even threefold, depending upon the test area [2]. This increase in length of coastline is not balanced by the addition to the calculation of the water area of the Bay of Fundy. For example, the area of the Bay of Fundy increases by only seven per cent the sea area appertaining to Canada in (76) Figure 51A of the Canadian Counter-Memorial, while inclusion of the Fundy coasts increases the Canadian coastline length by 93 per cent.

268. A bay is entitled to no greater seaward maritime jurisdiction than would be the case were the bay land territory rather than sea [3]. Therefore, for purposes of determining the appropriate area of maritime jurisdiction outside the Bay of Fundy, it is equitable to proceed as though the Bay of Fundy were not a body of water, but the land territory of Canada. This is precisely the effect that is achieved by drawing a line across the mouth of the Bay between the international boundary terminus and Cape Sable.

269. Including the lengths of the coasts internal to the Bay of Fundy for purposes of proportionality would allow Canada, in effect, to include

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[1] This illustrates a mathematical rule that is important to the application of the proportionality test. Increasing the length of a State's coastline that is measured in relation to a given offshore area, or decreasing the amount of a State's offshore area that is measured in relation to a given coast, will distort the ratio to the advantage of that State. Such a step will underrepresent the offshore area appertaining to that State's coast in comparison to the coast-to-area ratio of the other State. For this reason, the limits of the coasts and area to be tested must be determined with care and with regard for the need to compare like with like.

[2] The straight-line geodetic distance from the international boundary terminus to Cape Sable is 100 nautical miles. When the coast around the Bay of Fundy to Cape Sable is measured, however, as Canada has done, the distance becomes 258 nautical miles, or more than two and one-half times longer. If the test area extends to Lunenburg, as Canada has suggested, the straight-line distance increases from 183 nautical miles with a straight line across the mouth of the Bay of Fundy to 341 nautical miles including the lengths of the coasts of the Bay.

[3] For example, international law permits the use of low-tide elevations to extend the limits of the territorial sea only when they are located adjacent to the land territory of a State within the breadth of the territorial sea, not when they are adjacent to an artificial closing line across a bay or other body of water. Convention on the Territorial Sea and the Contiguous Zone, Article 11. United States Memorial, Annex 5, Vol. I. *See also United States v. Louisiana*, 394 U.S. 11 (1969).

within the proportionality test the same coastal front three times. Canada has one coastal front facing onto the Atlantic Ocean in the Gulf of Maine area, from Cape Sable to Cape Canso. This coast is entitled to, and under the boundary proposed by the United States will receive, its full seaward extension of maritime jurisdiction. Because Nova Scotia is a peninsula, there are two other Canadian coasts, parallel to, but landward of, the primary coastal front of Canada from Cape Sable to Cape Canso. Canada is entitled only to one measure of maritime jurisdiction in the Atlantic, not three. It would be beyond reason, for example, to suggest that the presence of the two parallel coasts in the Bay of Fundy entitles Canada to claim a 600-nautical-mile exclusive economic zone in the Atlantic Ocean. Nevertheless, including the coasts of the Bay of Fundy in the proportionality test produces a similarly illogical and highly inequitable result: it would permit Canada, in effect, to count the same coastal front three times in the Gulf of Maine area.

SECTION 3. Geographical Considerations Should Determine the Limits of the Relevant Coasts

270. The Parties disagree on the northeastern and southwestern limits of the coasts that are to be included in the proportionality test area. The United States has used the coasts from Nantucket to a point approximately 14 nautical miles northeast of Halifax. These limits were chosen to encompass the geographical features bearing on the delimitation, the Gulf of Maine and that part of the Nova Scotia peninsula south of the Chignecto Isthmus. Canada has contended that the test area should include equal portions of the Atlantic-facing coasts of the Parties on either side of the Gulf of Maine, and has included the coasts from Cape Cod to Long Island and from Cape Sable to Lunenburg. The United States submits that one of Canada's arguments in this regard, i.e., that the coasts with "economic links" to Georges Bank should be included, must be rejected for the reasons discussed in Part III of this Reply. Canada's other statements that these coasts must be included in order "to compare like with like [1]", and because "the Gulf of Maine itself constitutes the axis on which the test area must be balanced [2]", reveal the same false assumption that underlies much of Canada's case, i.e., that the coasts of Maine and New Hampshire do not exist for purposes of the delimitation in this case.

271. The Gulf of Maine cannot be the "axis" of balance, because the Parties are not balanced in relation to the Gulf. Most of the Gulf lies on the United States side of the international boundary and, as the name suggests, in front of the coast of Maine. Furthermore, the United States

[1] Canadian Counter-Memorial, para. 672.

[2] Canadian Counter-Memorial, para. 672. Canada's "axis" of balance is none other than Canada's own line.

coastline facing the Gulf of Maine is three times longer than the Canadian coastline facing the Gulf [1].

272. In brief, there is no reason to include the coast southwest of Nantucket, nor is there any reason to construct the test area around Canada's predetermined "axis". There are, however, guidelines for the Court to use. Because basic issues of this case concern the manner in which the concavity of the Gulf of Maine affects an equidistant line and whether comparable coasts of the Parties are to receive comparable treatment, it is sensible to include within the test area the coasts in the Gulf of Maine, from Nantucket around to Cape Sable (using a Bay of Fundy closing line), and as much of the Atlantic-facing primary coast of Nova Scotia as is necessary to "compare like with like".

SECTION 4. The Lengths of the Coasts May Be Measured by Straight Lines or Along the Sinuosities of the Coasts

273. In the *Tunisia/Libya* case, the Court calculated the proportionality test by measuring the coasts both along the sinuosities of the coasts and by straight lines [2]. The United States has provided calculations based upon each method [3].

274. Canada also has measured the coasts along straight lines. Except for the treatment of the Bay of Fundy, the straight lines used by Canada and the United States do not differ significantly. Thus, once the relevant coasts are determined, their lengths may be measured without difficulty.

SECTION 5. The Area Landward of the Starting Point May Be Disregarded for Purposes of the Proportionality Test

275. The Parties requested the Court to delimit the boundary beginning at the starting point specified in Article II of the Special Agreement, rather than at the terminus of the international boundary. As was noted previously, landward of the starting point lie Machias Seal Island and North Rock, the sovereignty of which the Parties dispute. The United States has excluded this maritime area from its proportionality tests, because there is no agreed boundary for this area and because the issue is

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[1] If Canada wishes to compare coasts of approximately equal lengths, the test would have to extend from Nantucket Island to Cape Canso. Straight lines drawn from Nantucket to Cape Ann, from Cape Ann to the international boundary terminus, from the international boundary terminus to Cape Sable, and from Cape Sable to Cape Canso, would measure 294 nautical miles for the United States and 332 nautical miles for Canada. This test as a result would include generally equal lengths of Atlantic-facing coastal front, as well as approximately equal lengths of lateral coastal front facing across the Gulf of Maine.

[2] *I.C.J. Reports 1982*, p. 91, para. 131.

(40)(41) [3] United States Memorial, Figs. 34 and 35; United States Counter-Memorial, (110)(111) Figs. 24 and 25.

not before the Court. The area is not large enough to affect materially the results of any appropriate test. At the same time, the United States did include the lengths of the coasts landward of the starting point, because such coasts do affect the delimitation of the seaward areas.

276. Canada has included the maritime area landward of the starting point in its proportionality tests [1]. Canada has divided this area arbitrarily by a straight line connecting the international boundary terminus to the starting point. With the understanding that such a line is without prejudice either to United States sovereignty over Machias Seal Island and North Rock or to the direction of the boundary from the starting point, this technique is also acceptable to the United States. The results of the proportionality test remain much the same whether the area is excluded, as is done by the United States, or included and divided by a straight line, as is done by Canada.

SECTION 6. The Seaward Limits of the Test Area May Be Defined by the 200-Nautical-Mile Limit or by Depth Contours of the Seabed

277. In the North Sea, the area to be included in the proportionality test conveniently was limited by the continental shelf boundaries of the Parties with Norway and the United Kingdom. In the Gulf of Maine area, as in the *Tunisia/Libya* case, the Court must determine the seaward limits of the test area by other means. The Parties have suggested four possible limits: a straight line drawn between two points located 200 nautical miles off the coast of each Party [2], the 1000-fathom-depth contour [3], the limits of the 200-nautical-mile zone [4], or the triangle described in Article II of the Special Agreement [5]. Each of the first three of these limits satisfies the requirement that one must compare "like with like", but use of the triangle would violate this requirement.

(40)(41) 278. Figures 34 and 35 in the United States Memorial define the seaward limits of the test area by drawing a straight line between two points on the 200-nautical-mile limit of each Party. This reflects the maritime jurisdiction of the Parties, including, in particular, the area off the primary coastal front of Canada northeast of Cape Sable, which extends far into the Atlantic. Because an equitable delimitation should allow comparable coasts of the Parties comparable seaward extensions, the proportionality test should compare under each of the boundary proposals the seaward

(76)(77) [1] Canadian Counter-Memorial, Figs. 51 and 52.

(40)(41) [2] United States Memorial, Figs. 34 and 35.

(110)(111) [3] United States Counter-Memorial, Figs. 24 and 25.

[4] United States Memorial, Annex 99, Vol. V; Canadian Counter-Memorial, Fig. (76) 51.

(77) [5] Canadian Counter-Memorial, Fig. 52.

extension of the maritime jurisdiction of the Atlantic-facing coast of Nova Scotia with that of Maine and New Hampshire [1].

279. Canada has suggested the use of the outer limit of the 200-nautical-mile zone as a possible seaward limit of the test area. The United States has used the 1000-fathom-depth contour. The United States finds either method acceptable. In the geographical situation in the Gulf of Maine area, each of these methods, properly applied, would include enough of the seaward extensions of the respective primary coastal fronts of the Parties to compare like with like.

(77) 280. The triangle depicted at Figure 52 of the Canadian Counter-Memorial does not permit an accurate evaluation of the effects of the proposed boundary lines. First, the triangle does not reflect the relevant geographical circumstances, as required by the proportionality test; it is merely a "procedural device [2]" invented by the Parties for other reasons. Moreover, the triangle fails to compare like with like and, in so doing, distorts the test in Canada's favor. (77) As Figure 52 of the Canadian Counter-Memorial demonstrates, the use of the triangle excludes large maritime areas that lie in front of the Canadian coast. At the same time, it includes maritime areas that lie in front of parts of the United States coast that are not included in Canada's calculations of coastline length. Use of the triangle to define the outer limit of the proportionality test therefore greatly underestimates the offshore area pertaining to the Nova Scotia coast in relation to that pertaining to the United States coast.

SECTION 7. Perpendiculars to the General Direction of the Coast Should Define the Lateral Limits of the Test Area

281. The United States has defined the lateral limits of its proportionality test by the use of perpendiculars to the general direction of the coast at a bearing of 54 degrees. Defining the test area in such fashion is both

(40)(41) [1] This test area, at Figs. 34 and 35 of the United States Memorial, includes areas beyond 200 nautical miles, which Canada contends are extraneous. Because this case inevitably will affect the delimitation of the areas beyond the triangle, however, it is appropriate to recognize the full measure of Nova Scotia's seaward extension into the Atlantic and the full inequity of the cut-off effect of an equidistant line on the primary coastal front of the United States. Canada objects that the northern endpoint extends farther than 200 nautical miles from the Nova Scotia mainland, and that it extends farther from the Canadian coast than the southern end point extends from the United States coast. These characteristics are not arbitrary, however, as they are caused by the actual geographical situation, viz., that Canada's jurisdiction off Nova Scotia is thrust seaward by offshore islands and by its protrusion relative to the coast of Maine and New Hampshire, which lies at the back of the concavity of the Gulf of Maine.

[2] Canadian Counter-Memorial, para. 611.

feasible and proper. The Parties agree that a general direction of the coast may be determined [1], although they have not agreed upon the precise azimuth. A line perpendicular to the general direction of the coast appropriately divides the maritime area appertaining to one segment of coast from the maritime area appertaining to the contiguous segment of coast [2].

282. Canada suggests that the test area should be limited by meridians and parallels. The Court previously found that technique to be appropriate in the geographical situation present in the *Tunisia/Libya* case, where the meridian was roughly perpendicular to the east-west direction of the Libyan coast, and the parallel was roughly perpendicular to the general north-south direction of the relevant portion of the Tunisian coast. Meridians and parallels, however, bear no such convenient relationship to the geography of the Gulf of Maine area, where the general direction of the coast extends roughly from southwest to northeast. The use of meridians and parallels would distort the test in Canada's favor by excluding most of the seaward extension of the Atlantic-facing coastline of Nova Scotia.

SECTION 8. The Adjusted Perpendicular Line Achieves a Proportionate Delimitation, Whereas the Equidistant Line and the Canadian Line Would Not

283. Any reasonably formulated proportionality test will confirm that, because of the concavity of the Gulf of Maine, the equidistant line, and *a fortiori* the Canadian line, would cut off the coast of the United States at Maine and New Hampshire from the maritime area in front of that coast and would result in a disproportionate and inequitable delimitation. Fully three-quarters of the coastline that borders the Gulf of Maine is a part of the United States. An equitable delimitation will respect that ratio inside the Gulf and leave the United States an even larger part of the area seaward of the Gulf, so as to allow comparable treatment of the primary coastal front of the United States with the primary coastal front of Nova Scotia facing the Atlantic Ocean from Cape Sable to Cape Canso. Any delimitation that accords comparable treatment to the Atlantic-facing coasts of the Parties will achieve a reasonable degree of proportionality

(7) [1] Canadian Memorial, para. 19 and Fig. 7.

(76) [2] In Fig. 51 of its Counter-Memorial, Canada defines its test area by use of a perpendicular to the general direction of the coast, which Canada asserts to be 67 degrees. The significance of the issue for this purpose is that the greater the inclination of the perpendiculars marking the northern and southern lateral limits, and the farther southward they swing, the smaller becomes the Canadian maritime jurisdiction that is included in the test area and the larger becomes the United States maritime jurisdiction that is included. If an inclination south of the proper perpendicular is used, this will underestimate the true ratio of Canada's coast-to-sea area, thus distorting the test in Canada's favor.

between the lengths of the Parties' coasts and the maritime areas in front (40)(41) of those coasts, as shown by Figures 34 and 35 of the United States (110)(111) Memorial, and Figures 24 and 25 of the United States Counter-Memorial [1].

[1] Annex 33 contains a technical description of the limits, distances, and areas used in these figures.

PART V. CONCLUSION

284. The Canadian claim to the northeastern portion of Georges Bank is, in the view of the United States, based upon two unacceptable propositions:

(1) the rejected notion of proximity has superseded the established principles of maritime boundary delimitation and requires a radical refashioning of the applicable law; and

(2) a delimitation in this case must give primacy to Canada's recent fishery on Georges Bank even at the expense of the relevant facts and the established law.

285. The first proposition must be rejected as a matter of law, for all the reasons previously given by the Court and arbitral tribunals and confirmed by the Third United Nations Conference on the Law of the Sea. There is no support for Canada's position regarding proximity in the case law relating to the continental shelf and exclusive fishing zones, in State practice, or in the text or negotiating history of the 1982 Convention on the Law of the Sea. In particular, application in this case of the equidistance method as proposed by Canada would produce even greater inequitable effects than those that prompted the Court to reject that method in the *North Sea Continental Shelf* cases.

286. The second proposition must also be rejected as a matter of law. For purposes of delimitation of a maritime boundary between neighboring States, a recent and limited fishing activity does not override (a) the fundamental relationship between the coasts of those States and the maritime areas in front of those coasts; (b) the equitable principles of resource conservation and dispute minimization, which call for a boundary that respects the Northeast Channel; and, (c) the traditional activities of the Parties and their nationals in the area.

287. The United States claim to the continental shelf and fishery resources of Georges Bank is based upon the equitable principles that this Court and arbitral tribunals consistently have applied in the delimitation of maritime boundaries. That claim is consistent with State practice in similar geographical circumstances and is reinforced by the trends witnessed at the Third United Nations Conference on the Law of the Sea. The adjusted perpendicular line proposed by the United States reflects the union of geography, geomorphology, ecology, oceanography, and fishing activities that are at the heart of the facts of this case.

288. In the view of the United States, the most significant facts governing this case are: (1) with the land frontier in the far northern

corner of the concavity that is the Gulf of Maine, all of Georges Bank lies in front of the United States coast at Maine and New Hampshire and no part of Georges Bank lies in front of any Canadian coast; (2) the United States coast facing the Gulf of Maine is three times longer than the relevant Canadian coast; and, (3) the Northeast Channel, the only significant geomorphological feature in the area, marks a natural boundary in the marine environment of the Gulf of Maine area, one that separates most of the commercially important fish stocks and that is recognized by the Parties for purposes of fisheries management and other responsibilities.

289. An adjusted perpendicular to the general direction of the coast that takes into account the location of the land boundary, the Northeast Channel, and the integrity of the separate fishing banks in the area, is an equitable boundary that not only gives full effect to the relevant facts in the Gulf of Maine area, but also comports with the four established principles of law that the United States has identified as being applicable in this case and, more generally, with the Fundamental Rule that maritime boundary delimitations are to be based upon equitable principles, taking account of the relevant circumstances, so as to produce an equitable solution. The adjusted perpendicular line proposed by the United States respects the extension into the Atlantic Ocean of Canada's primary coastal front from Cape Sable to Cape Canso and gives appropriate recognition to the short, secondary southwestern coast of Nova Scotia that faces solely the Gulf of Maine. With that appropriate recognition, the United States then is entitled to the extension into the Atlantic Ocean of its primary coastal front at Maine and New Hampshire.

290. All the relevant legal principles and the enduring facts of this case support the single maritime boundary proposed by the United States.

SUBMISSIONS

In view of the facts set forth in the United States Memorial, Counter-Memorial, and this Reply, the statement of the law contained in the United States Memorial, Counter-Memorial, and this Reply, and the application of the law to the facts as stated in the United States Memorial, Counter-Memorial, and this Reply;

Considering that the Special Agreement between the Parties requests the Court, in accordance with the principles and rules of international law applicable in the matter as between the Parties, to decide the course of the single maritime boundary that divides the continental shelf and fisheries zones of the United States of America and Canada from a point in latitude 44°11'12"N, longitude 67°16'46"W to a point to be determined by this Court within an area bounded by straight lines connecting the following sets of coordinates: latitude 40°N, longitude 67°W; latitude 40°N, longitude 65°W; latitude 42°N, longitude 65°W;

May it please the Court, on behalf of the United States of America, to adjudge and declare:

A. Concerning the applicable law

1. That delimitation of a single maritime boundary requires the application of equitable principles, taking into account the relevant circumstances in the area, to produce an equitable solution;

2. That the equitable principles to be applied in this case include:

a) The principles that the delimitation respect the relationship between the relevant coasts of the Parties and the maritime areas lying in front of those coasts, including nonencroachment, proportionality, and, where appropriate, natural prolongation;

b) The principle that the delimitation facilitate conservation and management of the natural resources of the area;

c) The principle that the delimitation minimize the potential for disputes between the Parties; and

d) The principle that the delimitation take account of the relevant circumstances in the area;

3. That the equidistance method is not obligatory on the Parties or preferred, either by treaty or as a rule of customary international law, and that any method or combination of methods of delimitation may be used that produces an equitable solution.

B. Concerning the Relevant Circumstances to be Taken into Account

1. That the relevant geographical circumstances in the area include:

a) The broad geographical relationship of the Parties as adjacent States;

b) The general northeastern direction of the east coast of North America, both within the Gulf of Maine and seaward of the Gulf;

c) The location of the international boundary terminus in the northern corner of the Gulf of Maine;

d) The radical changes in the direction of the Canadian coast beginning at the Chignecto Isthmus, 147 miles northeast of the international boundary terminus;

e) The protrusion of the Nova Scotia peninsula 100 nautical miles southeast of the international boundary terminus, creating a short Canadian coastline perpendicular to the general direction of the coast, and across from the international boundary terminus;

f) The concavity in the coast created by the combination of the protrusion of the Nova Scotia peninsula and the curvature of the New England coast;

g) The relative length of the relevant coastlines of the Parties; and

h) The Northeast Channel, Georges Bank, and Browns Bank and German Bank on the Scotian Shelf, as special features;

2. That the relevant environmental circumstances in the area include:

a) The three separate and identifiable ecological regimes associated, respectively, with the Gulf of Maine Basin, Georges Bank, and the Scotian Shelf; and

b) The Northeast Channel as the natural boundary dividing not only separate and identifiable ecological regimes of Georges Bank and the Scotian Shelf, but also most of the commercially important fish stocks associated with each such regime;

3. That the relevant circumstances in the area relating to the predominant interest of the United States as evidenced by the activities of the Parties and their nationals include:

a) The longer and larger extent of fishing by United States fishermen since before the United States became an independent country;

b) The sole development, and, until recently, the almost exclusive domination of the Georges Bank fisheries by United States fishermen; and

c) The exercise by the United States and its nationals for more than 200 years of the responsibility for aids to navigation, search and rescue, defense, scientific research, and fisheries conservation and management.

C. Concerning the Delimitation

1. That the application of equitable principles taking into account the relevant circumstances in the area to produce an equitable solution is best accomplished by a single maritime boundary that is perpendicular to the general direction of the coast in the Gulf of Maine area, commencing at the starting point for delimitation specified in Article II of the Special Agreement and proceeding into the triangle described in that Article, but adjusted during its course to avoid dividing German Bank and Browns Bank, both of which would be left in their entirety to Canada;

2. That the boundary should consist of geodetic lines connecting the following geographic coordinates:

	Latitude (North)	Longitude (West)
a.)	44°11'12"	67°16'46"
b.)	43°29'06"	66°34'30"
c.)	43°19'30"	66°52'45"
d.)	43°00'00"	66°33'21"
e.)	42°57'13"	66°38'36"
f.)	42°28'48"	66°10'25"
g.)	42°34'24"	66°00'00"
h.)	42°15'45"	65°41'33"
i.)	42°22'23"	65°29'12"
j.)	41°56'21"	65°03'48"
k.)	41°58'24"	65°00'00"

(Signed) ______________________

DAVIS R. ROBINSON
Agent of the United States
of America

ANNEXES TO THE REPLY OF THE UNITED STATES OF AMERICA

Volume I

DOCUMENTARY ANNEXES TO THE REPLY

Annex 1

A. GOTLIEB AND C. DALFEN, "NATIONAL JURISDICTION AND INTERNATIONAL RESPONSIBILITY: NEW CANADIAN APPROACHES TO INTERNATIONAL LAW", IN 67 *AMERICAN JOURNAL OF INTERNATIONAL LAW*, 1973, PP. 229-258

[Not reproduced]

Annex 2

UNITED STATES DEPARTMENT OF STATE, *BULLETIN*, VOL. XLVIII, NO. 1248, 27 MAY 1963, PP. 815-817

President Kennedy and Prime Minister Pearson of Canada Hold Talks

Following is the text of a joint communique issued on May 11 by President Kennedy and Prime Minister Lester B. Pearson of Canada at the close of their meetings at Hyannis Port, Mass., May 10–11.

White House press release (Hyannis, Mass.) dated May 11

During the past two days the President and the Prime Minister have met together in this historic State where so many of the currents of the national life of the two countries have mingled from early times.

2. Mr. Pearson's visit to Mr. Kennedy's family home took place in the atmosphere of informality and friendliness which marks so many of the relations between the people of the United States and Canada. There was no agenda for the talks. It was taken for granted that any matter of mutual interest could be frankly discussed in a spirit of goodwill and understanding.

3. In this community on the Atlantic seaboard, the Prime Minister and the President reaffirmed their faith in the North Atlantic Alliance and their conviction that, building upon the present foundations, a true community of the Atlantic peoples will one day be realized. They noted that questions which would be under discussion at the forthcoming NATO Ministerial Meeting in Ottawa would give both countries an opportunity to demonstrate their belief in the Atlantic concept.

4. Their Governments will continue to do everything possible to eliminate causes of dangerous tensions and to bring about peaceful solutions. In this task, they will continue to support the role of the United Nations, and to make every effort to achieve progress in the negotiations on nuclear tests and disarmament.

5. In the face of continuing dangers, the President and the Prime Minister emphasized the vital importance of continental security to the safety of the free world and affirmed their mutual interest in ensuring that bilateral defense arrangements are made as effective as possible and continually improved and adapted to suit changing circumstances and changing roles. The Prime Minister confirmed his government's intention to initiate discussions with the United States Government leading without delay towards the fulfilment of Canada's existing defense commitments in North America and Europe, consistent with Canadian parliamentary procedures.

6. President Kennedy and Prime Minister Pearson reaffirmed the desire of the two Governments to cooperate in a rational use of the continent's resources; oil, gas, electricity, strategic metals and minerals, and the use of each other's industrial capacity for defense purposes in the defense production-sharing programs. The two countries also stand to gain by sharing advances in science and technology which can add to the variety and richness of life in North America and in the larger world.

7. The President and the Prime Minister stressed the interest of both countries in the balance of payments between them and with the rest of the world. The Prime Minister drew particular attention to the large United States surplus in the balance of current payments with Canada and noted the importance of allowing for this fact in determining the appropriate policies to be followed by each country. It was agreed that both Governments should always deal in a positive and cooperative manner with developments affecting their international trade and payments.

8. The Prime Minister and the President

noted that encouraging discussions had recently taken place between Governor Herter [Christian A. Herter, the President's Special Representative for Trade Negotiations] and Canadian Ministers about the prospects for general trade negotiations and that these talks would be continuing with a large number of other countries in the General Agreement on Tariffs and Trade in Geneva next week. The two Governments will cooperate closely so that these negotiations can contribute to the general advantage of all countries.

9. While it is essential that there should be respect for the common border which symbolizes the independence and national identity of two countries, it is also important that this border should not be a barrier to cooperation which could benefit both of them. Wise cooperation across the border can enhance rather than diminish the sovereignty of each country by making it stronger and more prosperous than before.

10. In this connection the President and the Prime Minister noted especially the desirability of early progress on the cooperative development of the Columbia River. The Prime Minister indicated that if certain clarifications and adjustments in arrangements proposed earlier could be agreed on, to be included in a protocol to the treaty, the Canadian Government would consult at once with the provincial Government of British Columbia, the province in which the Canadian portion of the river is located, with a view to proceeding promptly with the further detailed negotiations required with the United States and with the necessary action for approval within Canada. The President agreed that both Governments should immediately undertake discussions on this subject looking to an early agreement.

11. The two Governments will also initiate discussions shortly on the suitability of present trans-border air travel arrangements from the point of view of the traveling public and of the airlines of the two countries.

12. On the great waters that separate and unite the two countries—the St. Lawrence River and the Great Lakes—it is essential that those who own and sail the ships should be free to go about their lawful business without impediment of harassment. The Prime Minister and President shared a common concern at the consequences which could result from industrial strife on this central waterway. They urged those directly concerned to work strenuously for improvement in the situation, and to avoid incidents which could lead to further deterioration. To help bring about more satisfactory conditions they have arranged for a meeting to take place in the near future between the Canadian Minister of Labour, Allan J. MacEachen, the United States Secretary of Labor, W. Willard Wirtz, the President of the AFL-CIO, George Meany, and the President of the Canadian Labour Congress, Claude Jodoin.

13. On the oceans that surround the two countries, while there has always been healthy competition, there has also been a substantial similarity of sentiment among those who harvest the sea. The need for some better definitions of the limits of each country's own fishing waters has long been recognized, particularly with respect to the most active fishing areas. The Prime Minister informed the President that the Canadian Government would shortly be taking decisions to establish a 12-mile fishing zone. The President reserved the long-standing American position in support of the 3-mile limit. He also called attention to the historic and treaty fishing rights of the United States. The Prime Minister assured him that these rights would be taken into account.

14. The President and the Prime Minister talked about various situations of common interest in this hemisphere. In particular they expressed a readiness to explore with other interested countries the possibility of a further cooperative effort to provide economic and technical aid to the countries in the Caribbean area which have recently become independent or which are approaching independence, many of which have long had close economic, educational and other relations with Canada and the United States. Such a program could provide a very useful supplement to the resources which those countries are able to raise themselves or to secure from the international agencies which the United States and Canada are already supporting.

15. Our two countries will inevitably have different views on international issues from time to time. The Prime Minister and the President

stressed the importance of each country showing regard for the views of the other where attitudes differ. For this purpose they are arranging for more frequent consultation at all levels in order that the intentions of each Government may be fully appreciated by the other, and misunderstandings may be avoided.

16. These preliminary discussions between the President and the Prime Minister will lead to a good deal of additional activity for the two Governments over the next few months. It is expected that there will be almost continuous exchanges of views during that period as work progresses in resolving many matters of concern to the two countries. Then, in the latter part of the year, meetings will be held of the Joint Cabinet-level Committee on Trade and Economic Affairs and on Defense.

17. The Prime Minister and the President look forward to a period of particularly active and productive cooperation between the two countries.

Annex 3

HOUSE OF COMMONS OF CANADA, DEBATE ON THE ARCTIC WATERS POLLUTION PREVENTION BILL, 16 APRIL 1970, PP. 5952-5953

[Not reproduced]

Annex 4

SUMMARY OF THE NOTE FROM THE UNITED STATES DEPARTMENT OF STATE TO EMBASSY OF CANADA, DATED 1 NOVEMBER 1967, AS REPORTED IN A MESSAGE FROM THE UNITED STATES DEPARTMENT OF STATE TO EMBASSY OF THE UNITED STATES, OTTAWA, DATED 2 NOVEMBER 1967

NOTE FROM THE SECRETARY OF STATE TO EMBASSY OF CANADA, DATED 25 APRIL 1969

SUMMARY OF THE NOTE FROM THE UNITED STATES DEPARTMENT OF STATE TO EMBASSY OF CANADA, DATED 1 NOVEMBER 1967

1. Following is substance text note given Canadian Ambassador Ritchie by Under Secretary Rostow Nov. 1:

> QTE Dept. . . . refers to Note Verbale of External Affairs of Oct. 11, 1967 handed to US Embassy Ottawa Oct. 25, 1967 concerning establishment by GOC of straight baseline system for delineation of Canada's territorial sea and contiguous fishing zone. In this connection, Dept. noted statement made by Paul Martin, Sec. State, External Affairs, before External Affairs Committee of House on Oct. 26, and Order of Governor-General in Council this subject issued Oct. 26.
>
> As GOC aware USG considers action of Canada without legal justification. It is view of US that announced lines are, in important and substantial respects, contrary to established principles of international Law of the Sea. US does not recognize validity of purported lines and reserves all rights of US and its nationals in waters in question. UNQUOTE

NOTE FROM THE SECRETARY OF STATE TO EMBASSY OF CANADA, DATED 25 APRIL 1969

The Secretary of State presents his compliments to His Excellency the Ambassador of Canada and has the honor to refer to the announcement on April 5, 1969 of the Canadian Minister of Fisheries that the Canadian Government will (*a*) shortly establish further headland to headland baselines for areas on the east and west coasts of Canada and (*b*) seek amendment of the Territorial Sea and Fishing Zones Act of Canada of 1964 to permit the drawing of "fisheries closing lines" enclosing Canadian coastal waters as exclusive Canadian fishing zones without affecting the limits of the internal waters and territorial sea claimed by Canada.

The Secretary of State also refers to the Note Verbale given to His Excellency the Ambassador of Canada on November 1, 1967 in response to a Note Verbale of the Canadian Department of External Affairs on October 25, 1967 which concerned the establishment by the Government of Canada of straight baselines for areas of the east coast of Canada. The Department of State Note Verbale set forth the position of the United States Government that the action of Canada was without legal justification, that the baselines announced by Canada were, in important and substantial respects, contrary to established

principles of the international law of the sea, that the United States did not recognize the validity of the purported lines, and that the United States reserved all rights of the United States and of its nationals in the waters in question. This position, which the United States Government continues to hold, was reiterated verbally to Canadian Counselor of Embassy Burwash on November 4, 1968 together with a request that if, despite the position of the United States, Canada decided to draw additional baselines, the United States would be consulted well in advance of any such decision and would be given an opportunity to comment on the baselines concerned before their announcement.

The Government of the United States wishes to express its disappointment in being given only a few hours advance notice of the announcement by the Canadian Minister of Fisheries on April 5, 1969 and no opportunity to comment upon it. The United States hopes it will be given an opportunity to comment on any baselines Canada plans to draw pursuant to that announcement. It would appreciate receiving their geographical coordinates in sufficient time before their intended announcement to allow proper study and discussion with the appropriate Canadian authorities.

With respect to the intention of Canada to amend its Territorial Sea and Fishing Zones Act to permit the drawing of fisheries closing lines, the United States also wishes to express regret it was also only given a few hours advance notice of this proposal and no opportunity to consult on it. The United States hopes it will be consulted regarding the provisions of the proposed amending legislation and given an opportunity to comment on it before it is submitted to Parliament.

The Secretary of State wishes to state the concern of the United States Government that measures such as those seemingly envisaged by the Government of Canada, could do serious harm to multilateral efforts to preserve freedom of the high seas as a fundamental tenet of international law.

Department of State
Washington, D.C. April 25, 1969.

Annex 5

AN ACT TO PREVENT POLLUTION OF AREAS OF THE ARCTIC WATERS ADJACENT TO THE MAINLAND AND ISLANDS OF THE CANADIAN ARCTIC, *REVISED STATUTES OF CANADA, 1970*, CHAP. 2 (1ST SUPP.) (ARCTIC WATERS POLLUTION PREVENTION ACT)

[Not reproduced]

Annex 6

L. H. J. LEGAULT, "MARITIME CLAIMS", IN R. ST. J. MCDONALD, G. L. MORRIS AND D. M. JOHNSTON, EDS., *CANADIAN PERSPECTIVES ON INTERNATIONAL LAW AND ORGANIZATIONS*, 1974, PP. 377-397

L.H.J. LEGAULT*

15/Maritime Claims

This chapter attempts a brief review of Canada's maritime claims and their evolution from the colonial period to the present. The intention is not to give a history of those claims or an analysis of their legal merits; rather it is proposed to examine Canada's claims to either maritime sovereignty or jurisdiction (or both) in the light of the factors which have determined both the claims themselves and the policies adopted in seeking to advance them.

Fisheries have occupied an important place in Canada's economic history and foreign relations from the colonial period to the present. Fishing, and not the fur trade, is Canada's oldest primary industry. The first treaty negotiated by Canada in its own right was the International Pacific Halibut Convention with the United States in 1923 (which, however, required ratification by the British government, coming as it did three years before the Imperial Conference of 1926 had accepted the equal status of the dominions and the mother country).[1] Canada is a member of nine international fisheries commissions established under various international conventions,[2] and in the two years from April 1970 to March 1972 Canada entered into nine new bilateral agreements related to fisheries.[3]

Self-evident though it may be, it is important to emphasize that Canada's maritime claims from the outset have been related to the use and protection of the living resources of the sea off its coasts. Despite the relative decline in the importance of commercial fishing to Canada's economy, and despite the fact that the annual cost of government services for the fisheries ranges from 25 to 35 per cent of the gross value of commercial fishery production on the Atlantic coast, fishing is still of vital importance to Canada's coastal provinces in both social and economic terms.[4] The resource orientation of Canada's maritime policy remains strong, and has been broadened with technological development to include offshore mineral as well as living resources. In addition, environmental concerns, which are intimately related to the protection of living resources, have recently assumed equal or greater importance.

BRITISH INFLUENCE

The basic Canadian concern for the protection of coastal resource interests has been a decisive factor in the evolution of Canadian maritime claims. Indeed the history of those claims may be described as being in large part the result of the interplay between Canada's preoccupation with coastal resource interests and the different and wider range of maritime interests of Great Britain and the United States.

*The opinions expressed here are solely mine.

It is one of the anomalies of history that Canada's maritime claims in some cases rest on earlier British claims but that, on the other hand, the advancement of Canadian claims was for a long period circumscribed and restricted (but also protected) by British policy. This is true not only for the period when Britain itself was largely responsible for Canada's maritime policy but also to some extent for part of the period following the achievement of Canadian autonomy in external affairs. For the legal heritage Canada acquired from Britain included the British view of the law of the sea, and its influence, as well as the influence of the other links with Britain, remained great in the determination of Canadian policy. Nevertheless, divergences between the views of the two countries in maritime matters appeared even before 1926 and were to widen thereafter.[5]

Notable examples of extensive early British claims to maritime areas adjacent to the Canadian coast include Hudson Bay and Strait, Conception Bay (and other bays of Newfoundland), the Bay of Fundy, and the Gulf of St Lawrence. English claims to sovereignty of the sea on the other side of the Atlantic go back to the tenth century,[6] and similar ambitions in North American waters were evident in the early colonial period. And from the early 1700s to the early 1800s when, as a result of naval interests, Britain was attempting to establish the freedom of the seas and restrict to three miles the marginal belt, the British were at the same time claiming increasingly wide customs jurisdiction to protect their fiscal interests that were being prejudiced by smuggling activities.[7]

As Professor Morin points out, the factors that influenced Britain to restrict its claims off its own (metropolitan) coasts do not appear to have been as decisive to its claims in the colonies, at least in the earlier period.[8] Full sovereignty over Hudson Bay and Strait was claimed by both Britain and France, and the 'restoration' of British sovereignty over these waters was recognized by France in the Treaty of Utrecht of 1713.[9] The British claim to Conception Bay (and other bays of Newfoundland) dates back to at least 1819 and was upheld by the Privy Council in the 1877 case of *Direct US Cable Company* v *The Anglo-American Telegraphic Company*.[10] Similarly Britain asserted sovereignty over the waters of the Bay of Fundy in the eighteenth and nineteenth centuries.[11] Britain (and earlier France) in the eighteenth century also claimed the Gulf of St Lawrence; the Treaty of Paris of 1763 would seem to indicate that both countries then acknowledged that these waters were 'national' and that access to the fisheries therein was a privilege to be granted by the territorial sovereign.[12]

After Trafalgar, however, British policy emphasized the freedom of the high seas and resisted claims to 'domination' beyond the three-mile marginal sea. This process culminated in the Customs Consolidation Act of 1876 after which, according to Colombos, 'the invariable practice of Great Britain has been to uphold the three-mile distance.'[13]

The effects of the new British policy for Canada were soon felt. Nevertheless, British influence remained important for a considerable period. In 1930 the answers of both Canada and Britain to the questionnaire circulated prior to the Hague Codification Conference reflected the same approach to the law of the sea (with the exception, however, that Canada listed 'geographic' as well as historic bays as being exempt from the ten-mile baseline rule).[14] It was not until the years following World War II that the divergences between the respective maritime policies of the two

countries were to lead them to quite opposite stands on issues of coastal jurisdiction.

UNITED STATES INFLUENCE

As Canada's neighbour, and ultimately as the world's leading maritime power, the interests and policies of the United States have provided the other important element in the interplay of factors which have influenced Canada's maritime claims. Shortly after attaining independence the United States espoused the doctrine of the three-mile limit for 'exclusive pretensions to the sea,' although the United States has not considered it inconsistent with that position to claim certain rights of jurisdiction and control beyond that limit.[15] However, while being in essential agreement on this approach, the United States and Britain (on behalf of Canada) nevertheless became involved in a century-long conflict over the Atlantic fisheries of British North America. After the War of Independence, the new American republic was anxious to preserve for its nationals the same right to fish in British North American waters which they had enjoyed as British subjects. This led to a series of disputes and treaties culminating in the 1910 North Atlantic Coast Fisheries Arbitration heard before the Permanent Court at the Hague and revolving about the interpretation and application of article I of the Convention of 20 October 1818 between Britain and the United States.

In its decision the court upheld the right of the United States to common enjoyment of the inshore fisheries along certain areas of the Canadian Atlantic coast pursuant to the 1818 Convention, as well as the right of the British to regulate those fisheries in a reasonable and equitable manner. For those areas of the Canadian coast in which the United States under the 1818 Convention had renounced its 'liberty' to fish, the court decided that the line of exclusion should be i / three miles from a straight line drawn across the entrances to bays at the place where they ceased to have the configuration and characteristics of a bay, and ii / in all other cases, three miles from the sinuosities of the coast. The findings of the court were substantially incorporated in the Treaty of Washington of 1912, together with the court's recommendation that, in every bay not specifically provided for, the closing line should be drawn in the part nearest the entrance at the first point where the width did not exceed ten miles. (The 1912 treaty did not deal with Hudson Bay or delimit the bays of Newfoundland.)[16]

The decision in the North Atlantic Coast Fisheries Arbitration is of fundamental importance in the history of Canada's maritime claims. It may be seen both as having substantially recognized the principal Canadian claims at issue in the case and as having confirmed the limitations upon them vis à vis the United States. And it marked the end of a bitter controversy with the United States over the North Atlantic fisheries (a result which in the long run may have been assisted by the fact that United States fishermen gradually began to lose interest in those fisheries). It did not, however, completely lay to rest the underlying differences of views on maritime policy which continued sporadically to trouble the otherwise harmonious fisheries relations of the two countries on the west coast and appeared at the 1958 Law of the Sea Conference.

One of the early problems to appear in fisheries relations on the west coast was

the Bering Sea fur seal controversy. In this case it was a United States claim rather than a Canadian one which precipitated the dispute. Some time after the acquisition of Alaska the United States sought to put an end to pelagic sealing in the Alaskan portion of the Bering Sea, on the grounds of urgent conservation needs, while allowing American nationals to take seals on the Bering Sea islands. These attempts to stop pelagic sealing were resisted by Canada in the name of freedom of the high seas, and Canadian vessels were regularly arrested for violating United States sealing regulations. An arbitral tribunal was established to resolve the dispute in 1892. In the light of later developments the arguments put forward in support of the United States and Canadian positions are particularly fascinating. The United States claimed a property right in the fur seals based on a vital territorial link with their place of origin and probable return. The United States also argued the right of self-protection or self-defence against activities threatening the extinction of an industry vital to the economic life of the nation. The British, on behalf of Canada, denied these claims and asserted the right of all states to fish on the high seas. The tribunal upheld the British-Canadian case in deciding that the United States had no right of protection or property in the fur seals outside the three-mile limit and could not regulate the fishery against foreign nationals.[17]

Some years after the Bering Sea arbitration, in 1911, a Convention respecting Measures for the Preservation and Protection of the Fur Seals in the North Pacific Ocean was signed by Britain, the United States, Russia, and Japan. This treaty (ultimately replaced by the 1957 Interim Convention on the Conservation of the North Pacific Fur Seals) was the first of a series of remarkable bilateral and multilateral conventions for the fisheries of the north Pacific. What is significant about these conventions is that despite difficulties and problems, some of which persist to this day, Canada and the United States were able to work out unusually co-operative and innovative arrangements for the conduct of important west coast fisheries. This is due perhaps in part to the parallel interests of the two countries in some important aspects of the development and exploitation of the fisheries concerned – for example, the principle of abstention.

Perhaps the most troublesome factor in the Pacific fisheries relations of Canada and the United States has been the question of Canadian claims to sovereignty over the waters of Dixon Entrance and Hecate Strait. Canada has regarded the line fixed by the 1903 Alaska Boundary Award (the A–B line) as constituting the international maritime boundary in these waters, running from Cape Muzon, Alaska (point A), almost due east to what the tribunal decided was the mouth of the Portland Canal (point B). The Canadian position has been that the waters, and not only the lands, lying south of the A–B line (comprising all the waters of Dixon Entrance and Hecate Strait) are Canadian waters. In this way the Unites States' Dall Island and Prince of Wales Island would be deprived of part of the territorial sea which would normally appertain to them in the absence of an agreement or other disposition to the contrary. This view, however, was not supported by the British, and in 1910 the law officers of the crown in London dismissed the Canadian claim as being unjustified under international law or by treaty rights.

The United States position has been that the 'A–B line' divides only the land territories of the two countries and not their territorial waters, although in the Canadian view this position was advanced by the United States only some years after

the 1903 award. United States fishermen throughout the century have fished in the waters of both Dixon Entrance and Hecate Strait up to three miles from the Canadian shore. In addition, the extent of 'Canadian waters' in Dixon Entrance and Hecate Strait was temporarily restricted for customs purposes without 'foregoing any Canadian rights in respect of the waters thus restricted.'[18] Nevertheless, although Canada has not enforced its fisheries regulations against United States nationals (nor its customs regulations against foreign nationals generally) beyond three miles from shore in Hecate Strait and Dixon Entrance, the Canadian government since the 1890s has maintained that these are Canadian waters. Incidents have occurred from time to time to keep the issue alive.[19]

In summary, it can be seen that Canadian fisheries claims, and the underlying claims to sovereignty over wide areas of the sea, came into conflict with United States fishing interests shortly after the United States won its independence. That conflict has been a thread that has intermittently woven its way in and out of the otherwise generally harmonious pattern of fisheries relations between the two countries up to the present.

In addition, as the United States attained to prominence as a world power, and especially as a naval power, fisheries relations became complicated by strategic considerations. United States security interests have been seen as demanding the maximim freedom and range for American warships and aircraft and, as a corollary, the minimum assertion by states of coastal jurisdiction beyond three miles. In the wake of unilateral claims made by other states (especially of Latin America) following the equally unilateral 1945 Truman Proclamations on the continental shelf and on fisheries conservation, the United States has been concerned with the phenomenon of so-called 'creeping jurisdiction' and its possible effects on the mobility of its nuclear submarines.[20] As an ally of the United States in NATO and NORAD, Canada has shared the concern of the United States for North American security, but that common concern has not meant identical views on maritime policy and has not prevented the two countries from taking quite opposite positions on issues of coastal jurisdiction.[21]

POSTWAR DEVELOPMENTS

In the years following the end of the World War II Canada, like many other smaller and younger powers, became increasingly preoccupied with the question of extending its jurisdiction over coastal fisheries. Foreign fishing activities off both the Atlantic and Pacific coasts were expanding rapidly and gave rise to serious concern. Numerous precedents were set of unilateral claims to maritime sovereignty or jurisdiction out to twelve miles and well beyond following the Truman Proclamations on the continental shelf and on fishing. As a condition of the entry of Newfoundland into Confederation the Canadian government agreed to apply the headland-to-headland rule for the measurement of the territorial waters along the coasts of the new province. With the fundamental change in circumstances brought about in the Gulf of St Lawrence with Newfoundland's entry into Confederation, Canada (following the much earlier British lead) announced its intention to claim and seek acquiescence in the claim that the gulf should become an 'inland sea.' The 1951 *Anglo-Norwegian Fisheries* case, which upheld Norway's application of the

straight baseline system for the measurement of the territorial sea along its coast, was seen by the government as having important implications for the Canadian coastline and as being applicable to 'many parts of the Canadian shores.'[22]

This, then, was the immediate background to the 1958 and 1960 Conferences on the Law of the Sea. Canada, in common with many other states, wanted greater protection for its coastal fisheries. Unlike some other states, however, it was not prepared to claim that protection unilaterally, and the government made clear that its intention was to seek multilateral agreement on 'territorial waters.' Out of concern for the security interests so heavily emphasized by Britain and the United States, and taking into account that the basic Canadian interest lay in resources rather than extensions of sovereignty, Canada proposed at the UN General Assembly in 1956 a formula whereby a fishing zone could be established beyond the traditional three-mile limit of the territorial sea. This separation of specialized jurisdiction from sovereignty had its roots, of course, in both British and United States practice. Neither Britain nor the United States, however, was prepared to go all the way with Canada at the 1958 conference. The United States introduced its own proposal for a six-mile territorial sea (thus abandoning the three-mile limit before Canada) and a six-mile contiguous fishing zone in which 'traditional rights' would be recognized in perpetuity. Britain for its part proposed a six-mile territorial sea which was in effect a three-mile territorial sea with an additional three-mile fishing zone. Accordingly Canada converted its own proposal to the six-plus-six formula but, in the face of opposition from the United States, Britain, France, the USSR, and others, was unable to obtain the necessary two-thirds majority. At the 1960 conference the United States and Britain ultimately supported a slightly modified compromise version of the Canadian six-plus-six formula, which failed by one vote to obtain two-thirds approval.[23]

The failure of the 1958 and 1960 Conferences on the Law of the Sea to resolve the question of the territorial sea and fishing limits marked an important turning point in the evolution of Canada's maritime policy and maritime claims. Until that point Canada had generally followed the path of negotiation, arbitration, and bilateral and multilateral agreement in respect of its claims. That path was not abandoned in the years following the 1958 and 1960 conferences, but a further element was added or at least reinforced: unilateralism. In effect Canada then dipped into one of the 'two parallel streams' of the history of the law of the sea as described by Lauterpacht; namely, the unilateral assumption of protective jurisdiction for special purposes within zones contiguous to the territorial sea.[24] This phenomenon – whose origins and attempted suppression owe so much to British and United States practice – was to become an essential element in Canadian law of the sea policy, without, however, entirely displacing the traditional basic emphasis on bilateral and multilateral agreements.

1964 LEGISLATION

After 1960 the Canadian government made one more attempt to find a multilateral solution to the coastal fisheries problem which the 1958 and 1960 conferences had failed to provide. Despite the failure at Geneva, Canada joined with Britain in canvassing countries around the world to ask them to join in a multilateral treaty based

on the six-plus-six formula. This effort was supported by more than forty countries *but not by the United States, and so came to nothing. Accordingly*, by 1963 the Canadian government had decided that the protection of Canada's resources necessitated the establishment of a fishing zone without awaiting international agreement.[25] A bill to this effect was introduced in mid-1964.

The 1964 Territorial Sea and Fishing Zones Act provided the first general purpose definition of the breadth of the Canadian territorial sea, retaining the traditional three-mile limit.[26] It made the straight baseline system applicable to the Canadian coasts (with implementation of this provision left to the governor in council). And it established a nine-mile fishing zone contiguous to the three-mile territorial sea. By order in council the fishing vessels of the United States were allowed to continue to fish in the contiguous fishing zones on both the east and west coasts, and the fishing vessels of France, Britain, Portugal, Spain, Italy, Norway, and Denmark on the east coast, pending the conclusion of negotiations under way with each of these countries.[27] It was made clear that France and the US, the only two countries having treaty rights to fish in Canadian waters, would be allowed to continue their activities in the areas concerned, subject to agreed arrangements and conservation regulations, but that the traditional fishing practices of the other countries named in the order in council would be subject to phasing-out arrangements.[28]

Some three years later, in October 1967, the first list of geographical co-ordinates *of points for the establishment of straight baselines was issued by the governor in* council.[29] That list established straight baselines for the measurement of the territorial sea along the coast of Labrador and the eastern and southern coasts of Newfoundland. A second list was issued in 1969 establishing straight baselines along the eastern and southern coasts of Nova Scotia and the western coasts of Vancouver Island and the Queen Charlotte Islands.[30]

These various measures left unresolved questions associated with some of Canada's major claims to maritime sovereignty or jurisdiction, namely the claims relating to the Bay of Fundy, the Gulf of St Lawrence, and Dixon Entrance and Hecate Strait, all areas for which no baselines were promulgated in 1967 and 1969 (together with Hudson Bay and Strait and the waters of the Canadian Arctic archipelago). The Canadian claim to Dixon Entrance and Hecate Strait has already been discussed. It has also been noted that in 1949 the Canadian government had announced its intention to claim the Gulf of St Lawrence as an 'inland sea.' As for the Bay of Fundy, it came into prominence in November 1962 when the Canadian prime minister made clear in the House of Commons that this bay constituted Canadian internal waters and that Soviet trawlers which had been sighted there would be requested to leave.[31]

At about this same time, however, yet another claim began to emerge, that to Queen Charlotte Sound on the Pacific coast. *This claim, which had no apparent* antecedent in British or Canadian practice, was suggested in a brief submitted to the Canadian government by the Fisheries Council of Canada in January 1963.[32] The Fisheries Council recommended that straight baselines be drawn, *inter alia*, across the entrances to Queen Charlotte Sound, Dixon Entrance-Hecate Strait, the Bay of Fundy, and the Gulf of St Lawrence. Although the government had indicated that it would accept the council's recommendations as the basis of its negotiations with other countries,[33] these areas, as already noted, were not included among

those covered in the 1967 and 1969 orders in council. However, in announcing the promulgation of the 1969 baselines to the House of Commons on 4 June 1969, the secretary of state for external affairs declared that the government would deal with these 'gaps' by an amendment to the Territorial Sea and Fishing Zones Act that would permit them to be enclosed within 'fisheries closing lines' without affecting the limits of Canada's internal waters and territorial sea.[34]

1970 LEGISLATION

It was against this background that the Canadian government introduced two bills before parliament in April 1970: the Bill to amend the Territorial Sea and Fishing Zones Act, and the Arctic Waters Pollution Prevention Bill. These received royal assent on 26 June 1970, with the latter providing one of the rare examples of an item of legislation being unanimously approved by parliament.[35] It is with the introduction of these statutes that new, environmental concerns come to assume equal if not greater prominence than resource interests as the essential foundation of Canadian maritime policy.

The amended Territorial Sea and Fishing Zones Act extended Canada's territorial sea from three to twelve miles, thus bringing Canadian practice into line with that of the now prevalent international practice and, incidentally, eliminating Canada's former nine-mile contiguous fishing zone. The act also authorized the establishment of new fishing zones in 'areas of the sea adjacent to the coast of Canada.' New fishing zones have since been created within 'fisheries closing lines' established across the entrances to the bodies of water not enclosed within territorial sea baselines by the 1967 and 1969 orders in council, that is, the Bay of Fundy, the Gulf of St Lawrence, Dixon Entrance-Hecate Strait, and Queen Charlotte Sound.[36] Subsequently, amendments to the Canada Shipping Act extended Canada's jurisdiction over both Canadian and foreign vessels in these newly created fishing zones for the further purposes of prevention and control of marine pollution.[37]

The Arctic Waters Pollution Prevention Act added two new dimensions to the international law doctrine of innocent passage. First, it posited that a passage threatening the environmental integrity of the coastal state could not be regarded as innocent. Second, it implied the applicability of the doctrine of innocent passage (which traditionally applies only to the territorial sea in contradistinction to the doctrine of freedom of navigation which applies to the high seas) independent of any claim of sovereignty. Thus, the legislation was another manifestation of the functional approach whereby a particular form of jurisdiction, rather than full sovereignty, is claimed and exercised for special purposes. Under the terms of the legislation, the waters of the Arctic archipelago, and the Northwest Passage in particular, are open to shipping subject to the necessary conditions for the protection of the ecological balance of Canada's Arctic islands and the adjacent marine environment. Commercially owned shipping entering waters designated by the Canadian government as shipping safety control zones is required to meet Canadian design, construction, equipment, manning, and navigation safety standards. These zones extend up to a hundred miles offshore. Ship and cargo owners are obliged to provide proof of financial responsibility and are liable for pollution damage

caused by them; this liability will be limited by order in council but does not depend upon proof of fault or negligence. The legislation also extends to land-based activities which could affect the Arctic waters, and to exploration and exploitation of the mineral resources of Canada's Arctic continental shelf.[38]

While stressing the functional approach underlying the Arctic waters legislation and the fisheries provisions of the amended territorial sea legislation, the Canadian government was careful to point out that the establishment of pollution control zones in the Arctic waters and exclusive fishing zones in other bodies of water, could not be construed as being inconsistent with or as an abandonment of claims to sovereignty over the Arctic waters or such other special bodies of water as the Gulf of St Lawrence. The 1910 North Atlantic Coast Fisheries Arbitration was cited as authority for the view that a state may, while claiming sovereignty over the whole of a sea area, exercise only so much of its sovereign powers over all or part of that area as it deems desirable without thereby prejudicing its claim to full sovereignty.[39]

With the introduction of these two items of legislation, the Canadian government also submitted a new declaration of acceptance of the compulsory jurisdiction of the International Court of Justice. The new declaration contained a reservation excluding from the jurisdiction of the court 'disputes arising out of or concerning jurisdiction or rights claimed or exercised by Canada in respect of the conservation, management or exploitation of the living resources of the sea, or in respect of the prevention or control of pollution or contamination of the marine environment in marine areas adjacent to the coast of Canada.'[40] The government indicated that while remaining attached to the rule of law and maintaining its respect for the International Court of Justice, it was not prepared to litigate on vital issues where the law was 'inadequate, non-existent or irrelevant' or did not provide a firm basis for decision.[41] Ministers also pointed out that the new reservation did not apply to claims to maritime *sovereignty* such as, for instance, the extension of the territorial sea to twelve miles.[42]

The amended Territorial Sea and Fishing Zones Act and the Arctic Waters Pollution Prevention Act met with a prompt response from the United States and led to what may be one of the more acerbic exchanges in the history of diplomatic communications between the two countries. (The 1964 territorial sea legislation had also aroused public objections by the United States, and Canadian government spokesmen did not miss the opportunity to point out, in introducing the 1970 legislation, that the United States had adopted a nine-mile contiguous fishing zone in 1966 after having expressed disagreement with the same action by Canada in 1964.)[43] In a press release giving the substance of its official note to the Canadian government, the United States declared that international law provided no basis for these 'unilateral extensions of jurisdictions on the high seas' and that the United States could 'neither accept nor acquiesce in the assertion of such jurisdiction.' Concern was expressed that this action by Canada would be taken as a precedent in other parts of the world for 'other unilateral infringements of the freedom of the seas' and for claims to exercise jurisdiction for other purposes, 'some reasonable and some not, but all equally invalid according to international law,' with the result that 'merchant shipping would be severely restricted, and naval mobility would be seriously jeopardized.'[44] In its reply the Canadian government made clear that it could not accept the United States government's views concerning the Arctic waters

legislation and the amendments to the Territorial Sea and Fishing Zones Act, and it cited United States precedents with respect to the exercise of jurisdiction beyond a three-mile territorial sea as indicating that the United States itself did not adhere to these views in practice. The Canadian reply characterized the Arctic waters legislation as a lawful extension of a limited form of jurisdiction to meet particular dangers and thus as being of a different order from 'unilateral interferences with the freedom of the high seas such as, for example, the atomic tests carried out by the US and other states.' The Canadian note went on to stress the inadequacies of international law with respect to the protection of the marine environment and the conservation of fisheries resources, and declared that the Canadian government was not prepared to abdicate its own responsibilities in these matters while awaiting the gradual development of international law. The note also emphasized the importance of state practice in the development of customary international law and justified the Arctic waters legislation as being based on the 'overriding right of self-defence of coastal states to protect themselves against growing threats to their environment.' Finally, the note argued that traditional concepts of the law of the sea were particularly irrelevant to the unique characteristics of the Arctic marine environment and reaffirmed the Canadian position that the waters of the Arctic archipelago, and the Northwest Passage in particular, are not high seas but Canadian waters.[45] (Following this exchange a further press release was issued by the Department of State on 18 December 1970 expressing the United States' objections to the Canadian government announcement of the establishment of 'fisheries closing lines' in the Gulf of St Lawrence, Bay of Fundy, Dixon Entrance-Hecate Strait, and Queen Charlotte Sound.)[46]

The negotiations begun in 1964 with respect to the traditional fishing practices of Britain, Norway, Denmark, France, Portugal, Spain, and Italy, and with respect to the treaty fishing rights of France, had not been concluded when the amended Territorial Sea and Fishing Zones Act was introduced in 1970. The Canadian government indicated, however, that the new legislation would help to bring these negotiations to an end, while reaffirming its intention to respect the treaty rights of the United States and France.[47] Indeed, an agreement had already been concluded with the United States allowing the fishermen of both countries to continue, on a reciprocal basis, the commercial fisheries which they had carried out up to three miles off the coasts of the other country prior to the first establishment of exclusive fishing zones by either Canada or the United States.[48] Subsequently, agreements were also concluded with Britain, Denmark, Norway, and Portugal concerning their traditional fishing practices in the Gulf of St Lawrence and the outer nine miles of the territorial sea off Canada's east coast; an agreement was also signed with France concerning its treaty fishing rights.[49]

The agreements with Britain, Denmark, Norway, and Portugal provided for the gradual phasing out of the traditional fisheries of these countries in the east coast areas concerned, with the latest terminal date being before the end of the present decade. The agreement with France provided for the termination of fishing activities by metropolitan French trawlers in these same areas but allowed continued fishing by a limited number of St Pierre and Miquelon vessels, subject to reciprocal treatment for Canadian vessels in the waters off the coast of the French islands; this same agreement also fixed the territorial sea dividing line between

Newfoundland and St Pierre and Miquelon (but not the continental shelf boundary south of the French islands). The fisheries phasing-out agreement with Norway was accompanied by a separate agreement on Norwegian sealing operations which provided for conservation measures to ensure the protection of seal stocks in the northwest Atlantic and allowed Norwegian sealing operations in the Canadian territorial sea on the east coast on an occasional and strictly regulated basis and subject to termination by 1978 if so desired. With regard to Spanish fishing practices, the negotiation of an agreement took somewhat longer; that agreement is generally similar to those dealing with traditional fishing practices of other countries but contains a number of special provisions. No announcement has been made about possible negotiations with Italy; that country appears, in any event, to have discontinued its traditional fishing practices off Canada's east coast.

PRESENT STATUS OF CLAIMS

Newfoundland Bays

All of the bays on the south and east coasts of Newfoundland have now been enclosed within the straight baseline system and so constitute internal waters of Canada. A new order in council was issued on 9 May 1972 revoking orders in council [1967] P.C. 2025 and [1969] P.C. 1109 and reissuing essentially the same geographic co-ordinates as had been included in the latter orders with certain minor revisions respecting the use of low-tide elevations as baselines for measuring the breadth of the territorial sea.[50] In addition, the new order incorporates the territorial sea dividing line between Newfoundland and St Pierre and Miquelon recently negotiated with France and establishes straight baselines for Fortune and Connaigre Bays on the south coast of Newfoundland (which had not been covered by the earlier orders in council).[51]

Bay of Fundy

This area has now been established as an exclusive fishing zone by a 'fisheries closing line' drawn from Whipple Point, Nova Scotia, to Garnet Rock, then to Yellow Ledge, Machias Seal Island and North Rock, and thence along Grand Manan Island to the Canada/United States boundary in Grand Manan Channel. Within this area, Canada also exercises comprehensive anti-pollution authority over all vessels pursuant to the 1971 amendments to the Canada Shipping Act. That the assertion of these special jurisdictions is not inconsistent with Canada's historic claim to the Bay of Fundy was emphasized in statements by government ministers referring to the principle established by the 1910 North Atlantic Coast Fisheries Arbitration. In any event, even if the territorial sea in the Bay of Fundy were to be measured from the sinuosities of the coast, the entire bay (with the exception of a small area that could be regarded as a 'high seas enclave' assimilated to the territorial sea entirely surrounding it) would fall under Canadian sovereignty with the adoption of the twelve-mile limit. It is perhaps important to note that the territorial sea, and hence Canadian fisheries jurisdiction, extends beyond the 'fisheries closing line' drawn across the entrance to the bay.

Gulf of St Lawrence

This area has been established as an exclusive Canadian fishing zone by a 'fisheries closing line' across Cabot Strait and the Strait of Belle Isle. As in the case of the other new fishing zones, Canada now also exercises anti-pollution authority in respect of all vessels within the gulf. Again, it appears that the assertion of special jurisdictions within the Gulf does not constitute an abandonment of the underlying claim to full sovereignty.

Dixon Entrance-Hecate Strait

This area has been established as an exclusive Canadian fishing zone by a 'fisheries closing line' from Langara Island (Queen Charlotte Islands) to point A (Cape Muzon, Alaska) of the A–B line' established by the 1903 Alaska Boundary Award. The amendments to the Canada Shipping Act already referred to also provide for the exercise of Canadian anti-pollution authority over all vessels in these waters. Recent incidents involving interference with Canadian vessels by the US Coastguard south of the 'A–B line' have led to reaffirmations of Canadian sovereignty over the area. According to government spokesmen, Canada has indicated its willingness in principle to hold talks with the United States with a view to avoiding further incidents and achieving a 'satisfactory resolution of the Dixon Entrance problem.'[52]

Queen Charlotte Sound

This area has been established as an exclusive fishing zone by a 'fisheries closing line' extending from Winifred Island (Vancouver Island) to Beresford Islands, Sartine Islands, and Triangle Islands and thence to the Kerouard Islands and Kunglit Island (Queen Charlotte Islands). Again, Canada now exercises anti-pollution authority in these waters under the Canada Shipping Act. As already noted, this claim was first proposed by the Fisheries Council of Canada in 1963 and appears to have no previous historic antecedent.

Arctic waters

Under the Arctic Waters Pollution Prevention Act, Canada will exercise jurisdiction over all vessels within one hundred miles from shore in the waters and ice adjacent to the Canadian Arctic islands for purposes of navigation safety and the prevention of pollution. While emphasizing that this legislation did not represent an assertion of sovereignty, government ministers have also affirmed that Canada has always regarded the waters between the waters of the archipelago as being Canadian waters. Particular emphasis has been laid on the implications of the twelve-mile territorial sea with respect to the Northwest Passage, where the new limit brings part of Barrow Strait as well as the whole of Prince of Wales Strait within full Canadian sovereignty under 'any sensible view of the law,' whether or not it might be alleged 'that other waters are not Canadian.' It has also been suggested that the status of the waters of the Arctic archipelago might fall 'somewhere

between the regime of internal waters and the regime of the territorial sea.'[53] (For a further discussion of questions relating to the Arctic waters see the separate chapter by Professor Pharand.)

Hudson Bay and Strait

No straight baseline (or 'fisheries closing line') has been drawn across the entrance of Hudson Strait under the 1964 or 1970 legislation. However, a 1906 amendment to the Fisheries Act made clear that 'Hudson Bay is wholly territorial water of Canada,'[54] and an order in council of 18 December 1937 established a territorial waters baseline across the eastern entrance to Hudson Strait, from Button Island to Resolution Island.[55] There would appear to be no doubt that this claim is firmly established in both law and practice.

CONTINENTAL SHELF CLAIMS

In addition to the traditional fisheries claims already discussed, Canada's attention since World War II has been increasingly drawn towards the potential mineral wealth of the seabed adjacent to its shores. In his report to the House of Commons on Canada's participation in the 1958 Law of the Sea Conference, the Minister of Northern Affairs and National Resources, Mr Hamilton, stressed the 'particular significance to Canada' of the Convention on the Continental Shelf and indicated that it could have 'consequences of far-reaching importance to Canada in the development of underwater oil and mineral resources.'[56] Since that time, the pace of exploration activities in Canada's offshore areas has increased rapidly. In a statement to the House of Commons on 9 March 1970 the Minister of Energy, Mines and Resources, Mr Greene, noted that oil and gas permits had been issued, some at depths as great as twelve thousand feet, for 'more than half the total area of Canada's continental margin,' which he described as comprising a total area of 1.5 million square miles.[57]

Canadian policy with respect to the development of an international regime for the resources of the seabed and ocean floor beyond the limits of national jurisdiction is discussed in a separate chapter. What is of interest from the point of view of Canadian maritime claims is the Canadian position on the limits of national jurisdiction, bearing in mind the elastic definition of these limits in the 1958 Convention on the Continental Shelf (ie, the two hundred metre isobath or, beyond, to the limits of exploitability). While it is established doctrine that Canada like every other coastal state enjoys exclusive sovereign rights in respect of the exploration and exploitation of its continental shelf, differences of views exist as to how far out these rights extend under existing law and how far out they should extend under the new legal regime under discussion in the United Nations. On this question the Canadian position has been described as being founded on both the provisions of the Continental Shelf Convention and the decision of the International Court of Justice in the *North Sea Continental Shelf* cases. Canada's claim to the 'submerged continental margin' has been reiterated on a number of occasions and the margin has been defined as consisting of the 'continental shelf and slope and at least part of the rise.'[58] It is understood that the part of the rise in question is that part overlying the slope. On

this basis Canada's continental shelf would extend only a few miles off the Queen Charlotte Islands and, if Flemish Cap is included, more that four hundred miles offshore due east of Newfoundland.

Of equal interest is the Canadian view of the nature as well as the geographic extent of the coastal state's jurisdiction. The interpretative declaration appended to Canada's ratification of the Seabed Arms Control Treaty is of particular significance in this regard.[59] The declaration enunciates Canada's view that: a / the Seabed Arms Control Treaty cannot be interpreted as allowing states to place non-prohibited (ie, conventional) weapons on the seabed and ocean floor beyond the limits of national jurisdiction (ie, beyond the juridical limits of the continental shelf), or to use this area for anything but peaceful purposes; b / the treaty cannot be interpreted as allowing any state other than the coastal state to place non-prohibited weapons on its continental shelf; and c / the treaty cannot be interpreted as in any way restricting the right of the coastal state to carry out inspection and removal of any weapons or installations on its continental shelf.[60]

While it is beyond the scope of this chapter to deal with questions relating to the delimitation of Canada's continental shelf boundaries with neighbouring states, it should be noted that the need for such delimitation arises in respect of the following areas: with the United States, in the Beaufort Sea, in the regions of Dixon Entrance and Juan de Fuca Strait, and in the Gulf of Maine; with France, in the area southwards of St Pierre and Miquelon (the territorial sea boundary between St Pierre and Miquelon and Newfoundland already having been delimited as noted above); and finally, with Denmark, in the area between Greenland and northern Canada.

CONCLUSION

Canada's maritime claims may well be among the largest in the world, embracing as they do such vast expanses as Hudson Bay and the Gulf of St Lawrence. They have their origins in resource interests, geography, and in history, many of them dating back to the British colonial period. They have occasioned differences with some of Canada's closest friends and allies and especially the United States, particularly in recent years when Canada has felt obliged to advance and protect its interests by unilateral action. It is important, however, to look behind the controversial term 'unilateralism' for a proper understanding of Canada's actions.

To begin with, Canada did not take unilateral action without having made exhaustive multilateral efforts over a period of many years to secure what it considered to be its legitimate interests. The background to Canada's unilateral ventures was well described by Senator Robichaud in the Senate on 10 June 1970 in the following terms:

> *These [multilateral] efforts, I believe, have failed largely because the major maritime* states have been rigid and inflexible in their views. They have too often confused national interests with international imperatives. As a result there has developed what has been called the 'tyranny' of the traditional concept of the freedom of the seas. Although some concessions have been made to the interests of the newer states and the new needs arising from developing technology, these concessions have been too modest, they have come too late, and they have had too many strings attached.[61]

Another important consideration to be taken into account in assessing Canada's actions is the role of state practice in the development of international law. On this question the Canadian view was succinctly expressed in a statement to the United Nations General Assembly on 4 December 1970:

> The contemporary international law of the sea comprises both conventional and customary law. Conventional or multilateral treaty law must, of course, be developed primarily by multilateral action, drawing as necessary upon principles of customary international law. Thus multilateral conventions often consist of both a codification of existing principles of international law and progressive development of new principles. Customary international law is, of course, derived primarily from state practice, that is to say, unilateral action by various states, although it frequently draws in turn upon the principles embodied in bilateral and limited multilateral treaties. Law-making treaties often become accepted as such not by virtue of their status as treaties, but through a gradual acceptance by states of the principles they lay down ... Unilateralism carried to an extreme and based upon differing or conflicting principles could produce complete chaos. Unilateral action when taken along parallel lines and based upon similar principles can lead to a new regional and perhaps even universal rule of law. Similarly, agreement by the international community reached through a multilateral approach can produce effective rules of law, while doctrinaire insistence upon the multilateral approach as the only legitimate means of developing the law can lead to the situation which has prevailed since the failure of the two Geneva Law of the Sea Conferences to reach agreement upon the breadth of the territorial sea and fishing zones.[62]

Finally, it is important to note that Canada has sought to accommodate as much as possible the interests of other countries affected by Canada's unilateral initiatives, often at the cost of severe domestic political criticism. This accommodation of the interests of other countries has led, first of all, to restrictions on the qualitative scope of the Canadian claims. Thus they have been limited generally to extensions of functional jurisdiction for special purposes and cannot be said to have had any significant impact on freedom of navigation responsibly exercised. By way of further accommodation, Canada has not sought to terminate unilaterally either treaty fishing rights or traditional fishing practices; the former have become the subject of new arrangements and the latter are being phased out gradually and by agreement.

It is, of course, to the 1951 *Anglo-Norwegian Fisheries* case that Canada owes the recognition of the straight baseline system which Canada has used to its advantage. Canada, however, has not simply ignored the other principle established by that same case, namely that the delimitation of sea areas 'cannot be dependent merely upon the will of the coastal state as expressed in its municipal law.' Much the same point was made by Prime Minister Trudeau in the House of Commons in October 1969:

> Membership in a community ... imposes – and properly – certain limitations on the activities of all members. For this reason, while not lowering our guard or abandoning our proper interests, Canada must not appear to live by double standards. We cannot at the same time that we are urging other countries to adhere to regimes designed for the

> orderly conduct of international activities, pursue policies inconsistent with that order simply because to do so in a given instance appears to be to our brief advantage. Law, be it municipal or international, is composed of restraints. If wisely construed they contribute to the freedom and the well-being of individuals and of states. Neither states nor individuals should feel free to pick and choose, to accept or reject, the laws that may for the moment be attractive to them.[63]

This recognition of the restraints imposed upon states by law remains an important element in the Canadian approach to the law of the sea and, in particular, to the Third Conference on the Law of the Sea scheduled for 1974. Canada was instrumental in bringing about agreement on the UN resolution calling for this conference and Canada has played a leading role in the preparations for the conference within the United Nations Seabed Committee.[64]

In these preparations Canada has sought to devise a new way of approaching the problems of the law of the sea and to establish new ground for an accommodation in the increasingly sharp conflict between coastal interests, on the one hand, and flag or distant-water interests on the other. To this end Canada has advanced the concepts of 'custodianship' and 'delegation of powers' as vehicles for the development of the future law of the sea. The essence of the policy summarized in the terms 'custodianship' and 'delegation of powers' is simple but nevertheless of fundamental importance: first, the primary or priority interests of the coastal state in all activities in areas of the sea adjacent to its shores must be reflected in international law; second, much of the administration of the law of the future must be 'delegated' to the coastal state and must be based on resource management and environmental management concepts; third, the basis for an accommodation between conflicting interests in the uses of the sea must lie in a better balance between the rights and consequent responsibilities of states, and hence the coastal state must exercise both its existing sovereign powers and its future 'delegated' powers not only in its own interests but as 'custodian' of vital community interests in the uses of the sea, on the basis of internationally agreed principles to this end.

This Canadian policy, and the twin concepts in which it has been encapsulated, applies to the whole range of issues of the law of the sea. Where acquired well-established rights are concerned, as in the case of the coastal state's sovereignty over the territorial sea or its exclusive sovereign rights over the continental shelf, the notion of custodianship implies that the coastal state must exercise those rights with due regard to the shared interest of all states in, for instance, innocent passage through the territorial sea and freedom of navigation in the superjacent waters of the continental shelf. From this point of view the notion of custodianship has a self-denying effect; it highlights the limitations already inherent in various recognized forms of maritime sovereignty and jurisdiction under traditional law, and presents them as positive duties owed by the coastal state to the international community. Where new or extended rights are sought to be acquired, such as anti-pollution authority in areas adjacent to the territorial sea, custodianship rides piggyback on *the concept of delegation of powers (which, of course, does not apply to sovereign* powers already acquired). Thus, on the one hand the concept of delegation of powers is acquisitive in effect and serves as a legal fiction (in the best sense of that term) under which legitimate aspirations of the coastal state can be satisfied; on the other

hand it also carries with it the self-denying aspects of custodianship and hence does not open the door to unbridled arbitrary action by the coastal state. The idea, of course, is that states should not claim benefits without accepting corresponding obligations. (The concepts of custodianship and delegation of powers can, of course, be applied even to the right of flag states to navigate the high seas, which should also entail certain duties and responsibilities.) That some states may claim the obligations in order to gain access to the benefits in no way detracts from the essential objective of balancing rights and responsibilities.[65]

It is worth noting that the concept of custodianship is fundamental to perhaps the most important initiative which Canada has ever taken in its domestic maritime legislation, the Arctic Waters Pollution Prevention Act. In discussing the alternative approaches available with respect to the pollution of Arctic waters, Prime Minister Trudeau described Canadian policy in terms which aptly describe what is meant by custodianship:

> To close off those [Arctic] waters and to deny passage to all foreign vessels in the name of Canadian sovereignty, as some commentators have suggested, would be as senseless as placing barriers across the entrance to Halifax and Vancouver harbours ... On the other hand, if we were to act in some misguided spirit of international philanthropy by declaring that all comers were welcome without let or hindrance, we would be acting in default of Canada's obligations not just to Canadians but to all of the world ... For these reasons ... Canada regards herself as responsible to all mankind for the peculiar ecological balance that now exists so precariously in the water, ice and land areas of the Arctic archipelago.[66]

These concepts of custodianship and delegation of powers underlie Canada's policy in response to new demands for further extensions of Canada's fisheries jurisdiction. For, the old Canadian claims having been effectively secured, new claims are being pressed upon the government by the Fisheries Council of Canada which is now seeking to have established Canada's ownership of the non-sedentary species inhabiting the waters above the Canadian continental shelf.[67] However, rather than asserting such a claim to ownership, Canada is pressing for international agreement on the concept that the coastal state has a special interest in and special responsibility for the conservation and management of the living resources of the sea adjacent to its coasts beyond its territorial sea and exclusive fishing zones. The Canadian approach distinguishes between coastal, anadromous, and oceanic species and the management systems to be devised for each of these. With regard to coastal species – that is, the free-swimming or non-sedentary species that inhabit the relatively shallow waters adjacent to the coast – Canada has proposed a resource management system under which the coastal state would assume the responsibility, and be 'delegated' the required powers, for their conservation and management as 'custodian' for the international community. Under this system the coastal state would not have the exclusive right to exploit the non-sedentary species of its continental shelf. It would, however, obtain preferential rights and a preferential share – which could be as much as 100 per cent in some cases – in the harvest of those stocks of particular importance to the coastal population. The coastal state would, moreover, have the clear authority to regulate and control the exploitation

of coastal species on the basis of internationally agreed principles, subject to review *of the exercise of that authority by an international tribunal in the event of disputes* with other states. This approach, in essence, would more clearly define the special interest of the coastal state already recognized in the 1958 Geneva Convention on Fishing and the Conservation of the Living Resources of the High Seas, and would give it effect in a practical, workable way while retaining the necessary safeguards against unreasonable action.[68]

Canada – and indeed the international community as a whole – is entering a new phase in the history of maritime claim and counter-claim. Canada is bringing to this new phase an approach which remains founded on national interests in the protection of coastal resources and the coastal environment. At the same time, however, Canada brings to the preparations for Third Law of the Sea Conference an imaginative, constructive approach which recognizes that there are limits to what can or should be done by unilateral action; that beyond the necessary accommodation between various national interests there are overriding international interests that must be secured; and that to the old concept of freedom of the seas there must be allied concepts of rational, responsible management not only of marine resources but of the marine environment as a whole. It is now more than ever essential that a new order be developed for the seas and oceans of the world before chaos, anarchy, and conflict take over Britannia's old job of ruling the waves. In the end, *it is only in international agreement that an abiding solution can be found for the* problems underlying the maritime claims of Canada and other countries.

NOTES

1 J.-Y Morin, 'Les eaux territoriales du Canada au regard du Droit international' (1963), *Can. Y.B. Int'l. L.* 86.

2 *Canada Yearbook* (1970–1) 651.

3 i Agreement between the Government of *Canada and the Government of Denmark* concerning Fisheries Relations between the Two Countries (Ottawa, 27 March 1972).

ii Agreement between Canada and France on their Mutual Fishing Relations (Ottawa, 27 March 1972).

iii Exchange of Notes between the Government of Canada and the Government of Norway constituting an Agreement with respect to Norwegian Fishing Practices off the Atlantic Coast of Canada (Ottawa, 15 July 1971).

iv Agreement between the Government of Canada and the Government of Norway on Sealing and the Conservation of Seal Stocks in the Northeast Atlantic (Ottawa, 15 July 1971).

v Exchange of Notes between the Government of Canada and the Government of Portugal concerning Fisheries Relations between the Two Countries (Ottawa, 27 March 1972).

vi Exchange of Notes between the Government of Canada and the Government of the United Kingdom concerning *Fisheries Relations between the Two* Countries, (Ottawa, 27 March 1972).

vii Agreement between the Government of Canada and the Government of the United States of America on Reciprocal Fishing Privileges in certain areas off their Coasts (Ottawa, 24 April 1970).

viii Agreement between the Government of Canada and the Government of the U.S.S.R. on Co-operation in Fisheries in the Northeastern Pacific Ocean off the Coast of Canada (Moscow, 22 January 1971).

ix Agreement between the Government of Canada and the Government of the U.S.S.R. on Provisional rules of Navigation and Fisheries Safety in the Northeastern Pacific Ocean off the Coast of Canada (Moscow, 22 January 1971).

4 See W.C. Mackenzie, *Fishery Problems in*

the Atlantic Provinces, prepared for the Conference concerning Canada-U.S. Law of the Sea Problems, University of Toronto, 15–17 June 1971.

5 Morin, *supra* note 1, at 86, 145–6.

6 C.J. Colombos, *International Law of the Sea* (6th rev ed, 1967) 48.

7 See W.E. Masterson, *Jurisdiction in Marginal Seas* (1929).

8 Morin, *supra* note 1, at 91.

9 G. Chalmers, ed, *A Collection of Treaties between Great Britain and Other Powers* (1790) VOL I, 379–81.

10 N. MacKenzie and L.H. Laing, eds, *Canada and the Law of Nations* (1938) 88–91.

11 Morin, *supra* note 1, at 104–5; J.-G. Castel, *International Law, Chiefly as Interpreted and Applied in Canada* (1965) 346–8.

12 L. Hertslet, *A Collection of Treaties and Conventions and Reciprocal Regulations between Great Britain and Foreign Powers* (1840) vol I, 239–40.

13 Colombos, *supra* note 6, at 94.

14 For text of Canadian Reply to the Questionnaire see L.N. Doc C 74(a), M 39(a)(1929) V. This difference between the Canadian and British replies is brought out in an unpublished report prepared by Dean G.F. Curtis for the government of Canada in 1954.

15 See P.C. Jessup, *The Law of Territorial Waters and Maritime Jurisdiction* (1927) 49–60.

16 *Ibid*, 363–82; D.M. Johnston, *The International Law of Fisheries* (1965) 190–205; Castel, *supra* note 11, at 294–304, 443–9.

17 See L. Oppenheim, *International Law*, vol I, 499; Johnston, *supra* note 16, 205–10; *British and Foreign State Papers* (1892–93) vol LXXXV, 1158–67. It is another of the anomalies of history that the right of self-defence should have been one of the major arguments invoked by Canada against the United States, and rejected by the United States, in the exchange of communications between the two countries in respect of Canada's 1970 Arctic Waters Pollution Prevention Act. The analogies between the United States position in the fur seal dispute and the Canadian position in the current controversy with Denmark over high seas fishing for Atlantic salmon are obvious. One difference of fundamental importance, however, is that Canada has recently put severe restrictions on its own Atlantic salmon fishing effort, even in its territorial waters, whereas the United States did not forbid other than pelagic sealing by its own nationals at the time of the fur seal dispute.

18 *Canada Gazette* vol 71, 1929. A proclamation, dated 29 January 1938, to Canadian Order in Council, [1937] P.C. no 3139.

19 For a recent official statement of the Canadian position see the statement by Albert Béchard, parliamentary secretary to the minister of justice, Canada, H.C. *Debates*, 20 September 1971, 8013.

20 See E.D. Brown, *Arms Control in Hydrospace: Legal Aspects* (1971) 90–6; also J.A. Knauss, *Factors Influencing a U.S. Position in A Future Law of the Sea Conference*, Law of the Sea Institute, Occasional Paper no 10 (1971); L.S. Ratiner, 'United States Ocean Policy: An Analysis' (1971); 2 *Journal of Maritime Law and Commerce*; a somewhat unorthodox military view, at least for the time, is given by G.E. Carlisle, US Navy, in 'Three-Mile Limit: Obsolete Concept' (1967), *U.S. Naval Institute Proceedings* 25–33.

21 See statement by the Honourable Mitchell Sharp, secretary of state for external affairs, on introduction of the Arctic Waters Pollution Prevention Bill, in Canada, H.C *Debates*, 16 April 1970, 5952: 'Security factors are vital to us as well as to others. It is because we share the concern to head off developments undesirable for common interests that we ask other states to adopt a flexible attitude which is responsive to new needs and special circumstances, and that we seek the cooperation of other states and offer them ours.'

22 See A.E. Gotlieb, 'The Canadian Contribution to the Concept of a Fishing Zone in International Law' (1964), *Can. Y.B. Int'l L.* 58–62.

23 Ibid, 64–71; see also *The Law of the Sea: A Canadian Proposal* (1962), and Canada, H.C. *Debates*, 25 July 1958, 2678–85.

24 See H. Lauterpacht, 'Sovereignty Over Submarine Areas' (1950), 27 *Brit. Y.B. Int'l L.* 404–7.

25 Canada, H.C. *Debates*, 30 January 1963, 3261; Canada, H.C. *Debates*, 20 May 1964, 3409–10; see also Gotlieb, *supra* note 22, at 74–5.

26 1964, Can., c 22.

27 Canadian Order in Council, [1964] P.C. no 1112.

28 Canada, H.C. *Debates*, 20 May 1964, 3408–12.

29 Canadian Order in Council, [1967] P.C. no 2025.

30 Ibid, [1969] P.C. no 1109.
31 Canada, H.C. *Debates*, 15 November 1962, 1650, and 16 November 1962, 1699–1700.
32 See appendix A, *Proceedings of the Senate Standing Committee on Banking and Commerce*, 7 May 1964, 38–44.
33 Proceedings of the Senate Standing Committee on Banking and Commerce, 7 May 1964, 20.
34 Canada, H.C. *Debates*, 4 June 1969, 9717–18.
35 An Act to amend the Territorial Sea and Fishing Zones Act, 1964, Can., c 63; An Act to Prevent Pollution of Areas of the Arctic Waters adjacent to the Mainland and Islands of the Canadian Arctic, 1970, Can., c 47.
36 Canadian Order in Council, [1971] P.C. no 366. The term 'fisheries closing lines' does not appear in the act or the order in council but is in common usage.
37 1971, Can., c 27.
38 See 'Background Notes on the Arctic Waters Pollution Prevention Bill and the Territorial Sea and Fishing Zones Bill' issued by the Department of External affairs, 8 April 1970; also Canada, H.C. *Debates*, 16 April 1970, 5948–53.
39 Canada, H.C. *Debates*, 16 and 17 April 1970, 5948–53 and 6014–15 respectively; also Senate Debates, 10 June 1970, 1198.
40 (1970–1), 25 *International Court of Justice Yearbook* 49.
41 Canada, H.C. *Debates*, 16 April 1970, 5952.
42 See address by Prime Minister, the Right Honourable Pierre Elliott Trudeau, to the Annual Meeting of the Canadian Press in Toronto on 15 April 1970. Department of External Affairs, *Statements and Speeches*, no 70/3.
43 Canada, H.C. *Debates*, 17 April 1970, 6013.
44 See appendix A: U.S. Press Release on Canada's Claim to Jurisdiction over Arctic Pollution and Territorial Sea Limits. Canada, H.C. *Debates*, 15 April 1970, 5923–4.
45 See appendix: Summary of Canadian Note handed to the U.S. Government. Canada, H.C. *Debates*, 16 April 1970, 6027–30.
46 See Department of State Press Release, no 357, 18 December 1970.
47 Senate *Debates*, 10 June 1970, 1199–1200.
48 Agreement between the Government of Canada and the Government of the United States of America on Reciprocal Fishing Privileges in certain areas off their Coasts (Ottawa, 24 April 1970); extended for one year as of 24 April 1972.
49 *Supra* note 3, i-vi.
50 Canadian Order in Council, [1972] P.C. no 966.
51 *Supra* note 3, ii.
52 Canada, H.C. *Debates*, 20 September 1971, 8013.
53 Ibid, 16 and 17 April 1970, 5948–53 and 6012–17 respectively.
54 1906, Can., c 13.
55 Canadian Order in Council, [1937] P.C. no 3139.
56 Canada, H.C. *Debates*, *25 July 1958, 2680.*
57 Ibid, 9 March 1970, 4568–70.
58 See notes for an address, 'Law and Arms Control on the Seabed,' by the Honourable Mitchell Sharp, secretary of state for external affairs, to the International Law Association, Toronto, 5 Nov 1969.
59 Seabed Arms Control Treaty, signed at London, Washington, and Moscow, 11 February 1971. Canadian ratification deposited at London, Washington, and Moscow, 17 May 1972. In force on 18 May 1972.
60 See text of Canadian Declaration attached to Canadian ratification of Seabed Arms Control Treaty.
61 Canada, Senate *Debates*, 10 June 1970, 1196.
62 See statement by Mr J.A. Beesley, Canadian representative in the First Committee, on item 25. Law of the Sea, Press Release no 50, 4 December 1970.
63 Canada, H.C. *Debates*, 24 October 1969, 39.
64 See G.A. Res. 2750, 25 U.N. GAOR (1971). The Canadian role in bringing about agreement on this resolution was stressed in the US State Department's Press Release no 357 of 18 December 1970, which noted that 'Canada, perhaps more than any other country, played a very important lead role in achieving a commitment by the international community to resolve these issues multilaterally.'
65 See statement by Mr J.A. Beesley, legal adviser to the Department of External Affairs and Representative of Canada to the United Nations Committee on the Peaceful Uses of the Seabed and Ocean Floor beyond the Limits of National Jurisdiction, Plenary Session, Geneva, 5 August 1971.
66 Canada, H.C. *Debates*, 24 October 1969, 39; see also J.L. Hargrove, ed, *Law, Institutions, and the Global Environment* (1972) 101, in which the concept of custodianship with respect to the environment is discussed in the following terms in a report on the Conference on Legal and Institutional Responses to Problems of the Global Environment, jointly sponsored by the Carnegie Endow-

ment for International Peace and the American Society of International Law, and held in September 1971: 'The delegation by the *international community* of authority to the coastal state to act as environmental "custodian" over a portion of the ocean adjacent to its own coasts, currently suggested by some, could be predicated on the theory of an international community interest, although in practical fact its proponents are understandably more likely to be motivated by an interest in self-protection than in protecting the community at large.'

67 *See Resolution, adopted at the 1972 Annual* Meeting, in *Fisheries Council of Canada Bulletin* (1972) 11.

68 *See statements by Dr A.W.H. Needler*, deputy representative of Canada to the United Nations Committee on the Peaceful Uses of the Seabed and Ocean Floor beyond the Limits of National Jurisdiction, Sub-Committee II, Geneva, 6 August 1971 and by Mr J.A. Beesley, legal Adviser to the Department of External Affairs and Representative of Canada to the United Nations Committee on the Peaceful Uses of the Seabed and Ocean Floor beyond the Limits of National Jurisdiction, Sub-Committee II, New York, 15 March 1972.

Annex 7

DECLARATION BY CANADA RECOGNIZING AS COMPULSORY THE JURISDICTION OF THE INTERNATIONAL COURT OF JUSTICE, IN CONFORMITY WITH ARTICLE 36, PARAGRAPH 2, OF THE STATUTE OF THE INTERNATIONAL COURT OF JUSTICE, NEW YORK, 7 APRIL 1970, 724 *UNTS* 64

[Not reproduced]

Annex 8

NOTE FROM THE SECRETARY OF STATE TO EMBASSY OF CANADA, DATED 14 APRIL 1970

NOTE NO. 105 FROM EMBASSY OF CANADA TO THE UNITED STATES DEPARTMENT OF STATE, DATED 16 APRIL 1970

NOTE FROM THE SECRETARY OF STATE TO EMBASSY OF CANADA, DATED 5 MAY 1970

NOTE FROM THE SECRETARY OF STATE TO EMBASSY OF CANADA, DATED 14 APRIL 1970

The Secretary of State presents his compliments to His Excellency the Ambassador of Canada and has the honor to inform him of the views of the United States Government regarding certain legislation recently introduced by his Government in the House of Commons.

Last week the Canadian Government introduced in the House of Commons two bills dealing with pollution in the Arctic, fisheries and the limits of the territorial sea. One of the bills seeks to assert unilateral and exclusive Canadian jurisdiction for the purpose of pollution control in Arctic waters up to 100 miles from every point of Canadian coastal territory above the 60th parallel. The second bill seeks to authorize the establishment of a 12-mile territorial sea off Canada's coasts, and also to establish exclusive Canadian fishing zones in certain areas of the high seas beyond 12 miles.

It is the view of the United States that these assertions of claims to unilateral extension of jurisdiction or sovereignty on the high seas are without foundation in international law. The United States will neither accept nor acquiesce in the assertion of such jurisdiction. Accordingly, the United States will be required to take lawful and appropriate steps to protect the integrity of its position on these matters.

If Canada had the right to claim and exercise exclusive pollution and resources jurisdiction on the high seas, other countries could assert the right to exercise jurisdiction for other purposes, some reasonable and some frivolous, but all equally invalid according to international law. The result would be anarchy on the seas. Merchant shipping would be severely restricted and naval mobility would be seriously jeopardized. The potential for international dispute is obvious.

The United States Government regrets that the Canadian Government has seen fit to extend its territorial sea to 12 miles in advance of international agreement on the subject. The United States regards the waters beyond the 3-mile limit as high seas in which the usual freedoms of the sea are guaranteed under long established and universally accepted principles of international law. The United States must, therefore, reserve its rights and those of its nationals in the waters in question.

The United States has long sought international solutions to problems involving the high seas. The United States is currently looking toward the conclusion of a new international treaty dealing with the limit of the territorial sea,

freedom of transit through and over international straits and defining preferential fishing rights for coastal states on the high seas. The United States is also deeply concerned over oil pollution of the seas. In this connection, the United States last winter signed two international conventions establishing the right of a coastal state to take preventive anti-pollution measures against vessels on the high seas, and also imposing strict liability upon the owners of vessels responsible for pollution. These conventions were concluded under United Nations auspices at Brussels, and the United States Government regretfully notes that of the forty-seven countries participating in the conference, Canada cast the only negative vote against the liability convention, despite the efforts of the United States to persuade her to join constructively in the endeavor.

The United States Government is currently seeking new international means for controlling pollution on the high seas. Moreover, the United States is acutely aware of the peculiar ecological nature of the Arctic region, and the potential dangers of oil pollution in that area. The Arctic is a region important to all nations in its unique environment, its increasing significance as a world trade route and as a source of natural resources. The United States believes the waters and ice of the Arctic beyond national jurisdiction should be subject to an international regime protecting their assets, both living and non-living. To this end, the United States intends shortly to ask other interested states to join in an international conference designed to establish, by agreement, such a regime. The United States Government would be pleased if the Canadian Government were to join in such a conference.

The views of the United States and those of Canada differ with regard to the freedom of the high seas. As indicated earlier, the United States rejects Canada's assertions of unilateral jurisdiction, and will not recognize their validity. Accordingly, the United States Government now invites Canada to submit these differences regarding pollution and fisheries jurisdiction to the International Court of Justice, the forum where disputes of this nature should rightfully be settled. With regard to Canada's simultaneous reservation to the compulsory jurisdiction of the Court, the United States Government must state its disappointment over the Canadian Government's apparent lack of confidence in the international judicial process, and the United States Government calls upon that government to join with the United States in submitting this dispute to the court despite the reservation.

The history of United States-Canadian relations is unique in world affairs for its closeness and cooperation. It is the hope of the United States that, in this spirit, the United States and Canada may continue to share the benefits of culture and technology, and to resolve their differences amicably and with mutual understanding.

14 April 1970
Washington, D.C.

NOTE NO. 105 FROM EMBASSY OF CANADA TO THE UNITED STATES DEPARTMENT OF STATE, DATED 16 APRIL 1970

No. 105

The Ambassador of Canada presents his compliments to The Honourable the Secretary of State and has the honour to refer to the Secretary's Note of April 14 outlining the views of the Government of the United States regarding

certain legislation recently introduced by the Canadian Government in the House of Commons. It will be recalled that one of these Bills, namely the Arctic Waters Pollution Prevention Bill, is intended to protect the delicate ecological balance of the Canadian Arctic by laying down anti-pollution measures, while the second Bill is intended to extend Canada's territorial sea from 3 to 12 miles and to provide for the subsequent establishment by the Government of new fisheries zones.

The Canadian Government is unable to accept the views of the United States Government concerning these measures and regrets that the United States is not prepared to accept or acquiesce in them. The Canadian Government cannot accept in particular the view that the proposed measures are "without foundation in international law". For many years, large numbers of States have asserted various forms of limited jurisdiction beyond their territorial sea over marine areas adjacent to their coasts. The Canadian Government notes that the position of the United States Government is that the waters beyond a 3-mile limit are high seas and that no State has a right to exercise exclusive pollution or resources jurisdiction on the high seas beyond a 3-mile territorial sea. The Canadian Government does not accept this view which indeed the United States itself does not adhere to in practice. For example, as early as 1790, at a time when the international norm for the breadth of the territorial sea was without question three miles, the United States claimed jurisdiction up to twelve miles for customs purposes and enacted appropriate enforcement legislation. This legislation was originally applicable only to vessels bound for the United States but was extended in 1922 to apply to all vessels, and is still in force. Since 1935, the United States has claimed the authority to extend customs enforcement activities as far out to sea as 62 miles, in clear contradiction of applicable International Law. In 1964, the United States established exclusive fisheries jurisdiction beyond its 3-mile territorial sea extending out to 12 miles from shore, and the United States has just passed analogous legislation asserting exclusive pollution control jurisdiction beyond its 3-mile territorial sea and up to 12 miles.

The Canadian Government reserves to itself the same rights as the United States has asserted to determine for itself how best to protect its vital interests, including in particular its national security. It is the further view of the Canadian Government that a danger to the environment of a State constitutes a threat to its security. Thus, the proposed Canadian Arctic waters pollution prevent legislation constitutes a lawful extension of a limited form of jurisdiction to meet particular dangers, and is of a different order from unilateral interferences with the freedom of the high seas such as, for example, the atomic tests carried out by the United States and other States which, however necessary they may be, have appropriated to their own use vast areas of the high seas and constituted grave perils to those who would wish to utilize such areas during the period of the test blast. The most recent example of such a test by the United States and its consequences for the freedom of the high seas, as was pointed out by some governments at that time, occurred in October, 1969, when the United States warned away shipping within a 50-miles radius of the test it was conducting at Anchitka Island. The proposed anti-pollution legislation, the proposed fisheries protection legislation and the proposed 12-miles territorial sea constitute a threat to no State and a peril to no one.

The Canadian Government draws to the attention of the United States Government that it is a well established principle of international law that customary international law is developed by State practice. Recent and important instances of such state practice on the law of the sea are, for example, the Tru-

man Proclamation of 1945 proclaiming United States jurisdiction over the continental shelf and the unilateral establishment in 1966 by the United States of exclusive fishing zones. Overwhelming evidence that international law can be and is developed by State practice lies in the fact that in 1958, at the time of the first of the recent failures of the international community to reach agreement on the breadth of the territorial sea, some 14 States claimed a 12-mile territorial sea, whereas by 1970 some 45 states have established a 12-mile territorial sea and 57 States have established a territorial sea of 12 miles or more. Indeed, the 3-mile territorial sea, now claimed by only 24 countries, was itself established by State practice.

The United States Government is aware of the major efforts made by Canada at the 1958 and 1960 Geneva Law of the Sea Conferences to bring about an agreed rule of law on the breadth of the territorial sea and on the breadth of contiguous zones for the exercise of various other types of limited jurisdiction. The United States Government is aware also that subsequent to the failure of the 1958 and 1960 conferences Canada joined with other countries in a further extensive and vigorous multilateral campaign to bring about agreement on these questions, and that these efforts failed because the United States ultimately declined to participate in them, having delayed its decision by nearly a year during which period Canada and many other members of the International Community deferred taking alternative action. The United States Government will recall also that when in 1964 Canada passed legislation establishing a 9-mile contiguous fishing zone, the United States objected to it, only to follow suit two years later, thereby confirming its acquiescence in both the substance and the manner of Canada's action. The United States Government is aware also from discussions between Canada and the United States from time to time over the last ten years of the serious concern of Canada over the unresolved questions of the breadth of the territorial sea and the rights of coastal states to assert limited forms of jurisdiction beyond the territorial sea for the purpose of protecting their vital interests. With respect to the Arctic Waters Pollution Prevention Bill, the United States will recall the strenuous efforts of the Canadian Delegation at the November, 1969 Intergovernmental Maritime Consultative Organization Conference in Brussels to bring about international agreement on effective pollution prevention measures, and is aware how far the results of that conference fell short of effective protection for coastal states. The Canadian Government is surprised and disappointed, in light of these developments, that the United States Government should have seen fit to portray Canada's negative vote at the Brussel's Conference as a vote against pollution control, when it is well known by all those concerned that it was intended as a demonstration of Canada's disappointment at how little the conference was prepared to do to meet the urgent problems of the protection of the world's marine environment and to require adequate compensation for damage.

It is well known that Canada takes second place to no nation in pressing for multilateral solutions to problems of international law, and that Canada has repeatedly and consistently shown its good faith by its continuing efforts to produce agreed rules of law. The Canadian Government is, however, determined to fulfil its fundamental responsibilities to the Canadian people and to the international community for the protection of Canada's offshore marine environment and its living resources, and the proposed legislation is directed to these ends.

Canadian Government has long been concerned about the inadequacies of international law in failing to give the necessary protection to the marine environment and to ensure the conservation of fisheries resources. The proposed

anti-pollution legislation is based on the overriding right of self-defense of coastal states to protect themselves against grave threats to their environment. Traditional principles of international law concerning pollution of the sea are based in the main on ensuring freedom of navigation to shipping states, which are now engaged in the large scale carriage of oil and other potential pollutants. Such traditional concepts are of little or no relevance anywhere in the world if they can be cited, as is the case in the Secretary of State's note, as precluding action by a coastal state to protect this environment. Such concepts are particularly irrelevant, however, to an area having the unique characteristics of the Arctic, where there is an intimate relationship between the sea, the ice and the land, and where the permanent defilement of the environment could occur, and result in the destruction of the whole species. It is idle, moreover, in the view of the Canadian Government to talk of freedom of the high seas with respect to an area, large parts of which are covered with ice throughout the year, other parts of which are covered with ice for most of each year, and where the local inhabitants use the frozen sea as an extension of the land to travel over it by dogsled and snowmobile far more than they can use it as water. While the Canadian Government is determined to open up the Northwest Passage to safe navigation, it cannot accept the suggestion that the Northwest Passage constitutes high seas. In these circumstances the Canadian Government is not prepared to await the gradual development of international law, either by other states through their state practice nor through the possible development of rules of law through multilateral treaties. The Canadian Government has repeatedly made clear that it is fully prepared to participate actively in multilateral action aimed at producing agreed safety and anti-pollution standards and the protection of the living resources of the sea, but it is not prepared to abdicate in the meantime its own primary responsibilities concerning these questions.

With respect to the Bill which would authorize the establishment of a 12-mile territorial sea off Canada's coasts, the Canadian Government notes that the United States "regards the waters beyond the 3-mile limit as high seas in which usual freedoms of the sea are guaranteed under long established and universally accepted principles of international law". In light of the large number of coastal states now claiming a territorial sea of 12 miles or more, the Canadian Government queries the existence of "universally accepted principles of international law" concerning the status of the 3-mile territorial sea and the area beyond. Indeed, it is the view of the Canadian Government that recent efforts of the United States directed towards a rule of law on the territorial sea, rights of passage, and fisheries jurisdiction provides the best evidence of the validity of the Canadian position on this question. The Canadian Government is aware of United States interest in ensuring freedom of transit through international straits, but rejects any suggestion that the Northwest Passage is such an international strait. The widespread interest in opening up the Northwest Passage to commercial shipping and the well-known commitment of the Canadian Government to this end are themselves ample proof that it has not heretofore been possible to utilize the Northwest Passage as a route for shipping. The Northwest Passage has not attained the status of an international strait by customary usage nor has it been defined as such by conventional international law. The Canadian Government reiterates its determination to open up the Northwest Passage to safe navigation for the shipping of all nations subject, however, to necessary conditions required to protect the delicate ecological balance of *[sic]* Canadian Arctic. The Canadian Government is puzzled by the reference in the Secretary of State's note to the United States Government's "disappointment over the Canadian Government's apparent lack of confidence in the inter-

national judicial process" in the light of the well-known and long-established reservations of the United States to compulsory jurisdiction of the International Court, particularly the so-called "Connally amendment" of August 14, 1946, which reserves to the sole judgement of the Government of the United States, the determination of what matters are within the jurisdiction of the International Court of Justice. The Canadian Government draws to the attention of the United States Government that even after the submission of its new reservation, Canada's acceptance of the compulsory jurisdiction of the International Court is much broader than that of most other member states of the United Nations. The new reservation does not in any way reflect lack of confidence in the Court but takes into account the limitations within which the Court must operate and the deficiencies of the law which it must interpret and apply. Moreover, it may be revoked and Canada's acceptance of the compulsory jurisdiction may again be broadened at such time as these deficiencies are made good. Canada's readiness to submit to the international judicial process remains general in scope and is subject only to certain limited and clearly defined exceptions rather than to a general exception which can be defined at will so as to include any particular matter. It should be noted that 81 of the 126 member states of the United Nations have not submitted a declaration of accepting compulsory jurisdiction of the International Court of Justice. Only 45 member states have accepted the Court's compulsory jurisdiction.

It is the earnest hope of Canadian Government that it will be possible to achieve internationally accepted rules for Arctic navigation within the framework of Canada's proposed legislation. It is recognized that the interests of other states are inevitably affected in any exercise of jurisdiction over areas of the sea. These interests have been taken into account in drafting this legislation; Canada has, for instance, provided that naval vessels and other ships owned by foreign governments may be exempted from the application of Canadian anti-pollution regulations if the ships in question substantially meet Canadian standards. Canada will give the interests of other states including United States, further consideration in entering into consultations with them before promulgating safety regulations under the Arctic Waters Bill.

The Canadian Government is pleased to note that the United States confirms that it is acutely aware of the peculiar ecological nature of the Arctic region and the potential dangers of oil pollution in that area. The Canadian Government agrees that the Arctic is a "region important to all nations in its unique environment, its increasing significance as a world trade route, and as a source of natural resources". The Canadian Government does not, however, agree that the Arctic as a whole "should be subjected to an international regime protecting its assets both living and non-living if this is what is proposed by the United States". Canada's sovereignty over the islands of the Arctic Archipelago is not, of course, in issue, nor are Canada's sovereign rights over its northern continental shelf, and the Canadian Government assumes that the United States Government is not suggesting an international regime to cover these environments (nor the land mass and adjacent submarine resources of Alaska). With respect to the waters of the Arctic Archipelago, the position of Canada has always been that these waters are regarded as Canadian. While Canada would be pleased to discuss with other states international standards of navigation safety and environmental protection to be applicable to the waters of the Arctic, the Canadian Government cannot accept any suggestion that Canadian waters should be internationalized. The Canadian Government notes that the United States intends shortly to ask other interested states to join in an international conference designed to establish by agreement an "International Regime" for the Arc-

tic, and notes that the United States Government would be pleased to join the Canadian Government in such a conference. Before the Canadian Government can express a definitive view on this question, further information will be required as to the scope, nature, and territorial limits of the regime the United States proposes, since the Canadian Government obviously cannot participate in any international conference called for the purpose of discussing questions falling wholly within Canadian domestic jurisdiction. With regard to matters properly of an international character, the Prime Minister took the lead in his statement to the Canadian Parliament on October 24 last, in inviting the international community to join Canada in promoting a new concept, an international legal regime to ensure to human beings the right to live in a wholesome natural environment.

The Canadian Government notes the views of the United States Government concerning the proposed measures permitting the establishment of exclusive fishing zones. It is the considered view of the Canadian Government that neither existing customary international law nor contemporary conventional international law are adequate to prevent the continuing and increasingly rapid depletion of the living resources of the sea. The Canadian Government is aware of the proposals of the United States and other states concerning possible solutions to this problem through a multilateral approach, and the Canadian Government intends to participate actively and constructively in any conferences to be held to consider such questions. Pending the development of agreed rules of law on such questions, Canada in the meantime proposes to take all measures necessary for the protection and conservation of the living resources of the sea adjacent to Canada's coast. It is the expectation of the Canadian Government that other states will take similar action since it is becoming increasingly apparent that there is no other effective way to prevent the rapid depletion of the living resources of the marine environment.

The Canadian Government is pledged to the development of the use of Canada's Arctic waters for the encouragement and expansion of Canada's northern economy and has adopted a functional and constructive approach to these questions which does not interfere with and indeed can facilitate the legitimate activities of others. The two bills reflect the determination of the Canadian Government to fulfill its responsibilities to its own people and to the international community to preserve the ecological balance of Canada and to protect and conserve the living resources of its marine environment.

The Canadian Government reaffirms its faith in the spirit of cooperation which Canada and the United States have shown throughout so much of the history of their relations and is confident that it will be possible to resolve their differences amicably and with mutual understanding.

NOTE FROM THE SECRETARY OF STATE TO EMBASSY OF CANADA, DATED 5 MAY 1970

The Secretary of State presents his compliments to His Excellency the Ambassador of Canada and has the honor to refer to the Ambassador's Note of April 16 regarding certain legislation recently introduced by the Canadian Government in the House of Commons. In view of certain statements contained in the Note, the Government of the United States believes it would be desirable to clarify various aspects of the views it has earlier expressed.

With respect to the jurisdiction of coastal states, the United States does not dispute that international law recognizes limited enforcement powers of the

coastal state in a zone of the high seas which does not extend beyond twelve miles from the coast or appropriate baselines. This is clearly stated in the United Nations Convention on the Territorial Sea and the Contiguous Zone. The recent amendments to the United States Federal Water Pollution Control Act explicitly refer to the criteria of that Convention.

The United States strongly supported the efforts of the United Nations to codify the law of the sea, signed and ratified the four United Nations Conventions on the Law of the Sea, and has taken no action inconsistent with those Conventions. It neither sought nor obtained recognition of any coastal state jurisdiction over navigation in a zone of the high seas extending beyond twelve miles. The 1935 legislation referred to by the Government of Canada in fact explicitly limits the customs waters of the United States to twelve nautical miles from the coast. Its provisions with respect to vessels hovering on the high seas within fifty miles beyond customs waters and engaged in liquor smuggling into the United States are inapposite; they have not in any event been enforced since the 1958 United Nations Conference on the Law of the Sea. The establishment of an exclusive fisheries zone in 1966 extending to twelve miles from the coast was consistent with the position taken at the United Nations Conferences by nearly every state attending, including Canada, and followed similar action or agreement on such action by nearly all other maritime nations, including Canada.

The Government of Canada has also referred to the United States nuclear test at Amchitka. This test was conducted in a manner consistent with the treaty obligations of the United States and international law. The United Nations issued no prohibition of navigation on the high seas; the forty-eight-hour suspension of innocent passage within the three-mile territorial sea surrounding Amchitka was in accordance with the provisions of the United Nations Convention on the Territorial Sea and the Contiguous Zone. In issuing a warning of the test to vessels on the high seas in the area, the United States considers that it was acting in furtherance of its obligations to other nations and international shipping. The United Nations Convention on the High Seas requires that the freedoms of the high seas be exercised with reasonable regard to the interests of other states in their exercise of the freedoms of the high seas. The United States considers that this standard was fully satisfied.

Although frequent reference is made to the 1945 Truman Proclamation on the Continental Shelf to justify a variety of unilateral actions, the United States must point out that it did not in 1945 or thereafter receive any objection from any other state regarding the Truman Proclamation. Unlike the waters of the high seas, the natural resources of the seabed and subsoil of the continental shelf beyond the territorial sea had not been the subject of developed principles of international law or extensive legal study or discussion. Such precedent as did exist tended to support the concepts of the Truman Proclamation. Nevertheless, the Truman Proclamation was followed by extensive and unreasonable assertions of sovereignty or jurisdiction over the high seas by some states which were clearly in contravention of applicable principles of international law and which resulted in international dispute. It is this experience in particular which convinces the United States that unilateral action, especially at a time when so many channels for international action have been developed, is unwarranted and unwise.

The United States Government is deeply concerned at the possible precedential effects of Canada's action in taking these unilateral protective measures in the present circumstances. That concern prompted the United States to suggest, in the Secretary of State's note of April 14, 1970, that Canada join with the

United States in submitting these jurisdictional differences to the International Court of Justice. The United States is particularly concerned with the implication in the Canadian Note that the International Court of Justice cannot perform an adjudicatory function when in the view of one of the parties to the dispute, the international law relevant to the dispute is "deficient". The Court, as a judicial body expressly constituted to resolve disputes between nations, is fully capable of applying and developing the law in terms of contemporary problems. Accordingly, the United States reiterates its invitation to the Government of Canada to join with the Government of the United States is submitting these questions to the Court.

At the same time, it should be clearly understood that submission of these issues to the Court has no direct relation to the convening of an international conference on the protection of the Arctic environment or to the results of that conference. The Government of the United States welcomes the interest of the Government of Canada in such an international conference and once again notes with pleasure the Prime Minister's proposals in this regard. The United States believes that such a conference should be convened at the earliest possible time with a view to achieving early agreement on appropriate measures to protect the Arctic environment. Such a conference would be convened for the purpose of creating new treaty law and therefore would not need to await decisions by the Court on the validity of unilateral protective measures or to take such decisions into account.

The United States Government agrees that the international conference on protection of the Arctic environment should be limited to matters properly of international concern. The government of the United States does not believe that differing views regarding the unilateral enactment of the protective measures proposed by the Canadian Government should prevent the achievement of international agreement on effective, permanent measures to protect the Arctic environment.

The problem of ocean pollution knows no boundaries. Oil spilled on the high seas hundreds or thousands of miles away can be washed on shore by unpredictable currents and winds. The problem cannot be resolved effectively by unilateral state action; such action will inevitably lead to conflicting assertions of jurisdiction and standards of regulation, whereas the dangers of pollution call for the highest degree of cooperation between nations and a standardized approach to regulation and control.

For these reasons, the United States has strongly supported, and continues to support, efforts at international agreement to protect the ocean environment and the adjacent coastlines. The United States Government will give urgent and serious consideration to the adoption by international agreement of standards and measures designed to protect the Arctic environment.

Department of State,
Washington, D.C., May 5, 1970.

Annex 9

STATEMENT BY AMBASSADOR CADIEUX, LEGAL DISCUSSIONS CONCERNING IMPLICATIONS OF ANGLO-FRENCH ARBITRATION AWARD FOR CANADA/USA MARITIME BOUNDARY DELIMITATION IN THE GULF OF MAINE AREA, OTTAWA, 14 OCTOBER 1977

As a state Canada has long been a promoter of the rule of law because it offers the best hope for securing rights and interests in the international areas. It is, therefore, not by accident that Canada, over the years, has consistently supported the development of a coherent and comprehensive regime of international law and sought earnestly to ensure that its policies and actions conform to the established and emerging norms of applicable international law. Nor is it surprising that in the present decade two Under-Secretaries of the Department of External Affairs have at one time also served as Legal Advisers to this Department.

The Government of Canada considers that its commitment to the rule of law implies an obligation to review its policies and positions in the light of the progressive development and clarification of international law through the processes of Treaty-making, codification, judicial decisions, state practice, and the writings of eminent jurists. In the absence of a situation of estoppel, states cannot and should not be bound by positions or policies which, as a consequence of the clarification or development of legal norms, no longer conform to applicable principles and rules of international law. To adopt a contrary view would not only impede the development of international law, but would also constitute a serious obstacle to the settlement of disputes through negotiation and other peaceful means.

The United States' Government, I assume, holds similar views. Your actions with respect to continental shelf delimitation in the Gulf of Maine/Georges Bank area are evidence of your approach to these matters. As you know, Canada issued oil and gas permits on Georges Bank up to the equidistance line in 1964/65. The responsible USA officials were well aware of what we did and they accepted the principle of equidistance as a method of delimitation and did not question the validity of the Canadian permits. I do not propose to address now the question of whether an estoppel was created by the USA actions and statements at that time, as you are already aware of our position on this matter. It was only in November 1969, following the decision of the ICJ in the *North Sea Continental Shelf* cases, that the USA Government indicated that it did not accept the application of the equidistance principle to the Gulf of Maine/ Georges Bank area. In the bilateral discussions which took place in 1970 and again in 1975/76, it became clear that the USA position in the Gulf of Maine/ Georges Bank area rested essentially on the USA interpretation of that ICJ decision and on the clarification and/or development of the applicable international law which, it believed, this decision represented.

Many governments have eagerly awaited the recent Award of the Anglo-French Court of Arbitration on the Delimitation of the Continental Shelf and have given that decision careful study. As the first judicial decision on continental shelf delimitation rendered between parties to the 1958 Geneva continental Shelf Convention, its relevance to maritime boundary delimitation between our two countries is obvious. We on the Canadian side have consulted with

eminent international jurists familaiar *[sic]* with the case. We are of the view that it would be most useful for both Canada and the USA to review their respective positions in the light of this signal Award. We have already carried out such a review with respect to the Gulf of Maine/Georges Bank area and are still in the process of assessing the impact of the Award on the other Canada/USA maritime boundary areas. Today, we would like to have as full and frank an exchange of views as time allows on the relevance of the Award to the Gulf of Maine area, and leave the discussion of the other areas for a later meeting. I think that it will be useful to you and may help our negotiations if you are aware of the most recent trends in our thinking at the official level and of the advice which is likely to be available to Canadian political leaders as they make their decisions on matters which are within our terms of reference. We hope to profit additionally if you will reciprocate and outline to us how you interpret recent developments in the relevant rules of international law. Our respective leaders will also appreciate having information on our respective positions.

Annex 10

MARITIME BOUNDARY SETTLEMENT TREATY AND EAST COAST FISHERY RESOURCES AGREEMENT: HEARINGS BEFORE THE COMMITTEE ON FOREIGN RELATIONS, UNITED STATES SENATE, 96TH CONGRESS, 2ND SESSION, PP. 1-9, 18-21 AND 74-76 (15-17 APRIL 1980) (STATEMENTS OF SENATOR PELL, SENATOR COHEN, SENATOR CHAFEE, DEPUTY SECRETARY OF STATE CHRISTOPHER AND SENATOR WEICKER)

[Not reproduced]

Annex 11

COMMITTEE ON FOREIGN RELATIONS, UNITED STATES SENATE, 86TH CONGRESS, 2ND SESSION, REPORT ON THE CONVENTIONS ON THE LAW OF THE SEA, EXECUTIVE REPORT NO. 5, DATED 27 APRIL 1960

HEARING BEFORE THE COMMITTEE ON FOREIGN RELATIONS, UNITED STATES SENATE, 86TH CONGRESS, 2ND SESSION, ON EXECUTIVES J, K, L, M AND N (THE 1958 LAW OF THE SEA CONVENTIONS), 20 JANUARY 1960, PP. 82-93

[Not reproduced]

Annex 12

DEPARTMENT OF EXTERNAL AFFAIRS, "CANADA/USA MARITIME BOUNDARY DELIMITATION, GULF OF MAINE/GEORGES BANK AREA", DATED 10 JUNE 1977

CANADA/USA MARITIME BOUNDARY DELIMITATION

GULF OF MAINE/GEORGES BANK AREA

Background

The subject of continental shelf delimitation has been under discussion between the Canadian and USA Governments since 1970, but these discussions have not as yet led to agreed settlements. The extension by both countries earlier this year of fisheries jurisdiction to 200 miles has created an urgent need to settle the outstanding issues of maritime boundary delimitation between them.

The four areas in which the question of Canada/USA maritime boundaries must be addressed are in the Gulf of Maine/Georges Bank area, seaward of Juan de Fuca Strait, seaward of Dixon Entrance, and in the Beaufort Sea.

Canadian and USA fishermen have traditionally fished on the high seas off the coast of the other country and — pursuant to reciprocal agreements — in areas falling under the other country's jurisdiction. In order to prevent a dislocation of these fisheries and to promote the mutually beneficial development of the marine resources in the boundary areas, it is necessary to negotiate a new fisheries relationship which will take account of the realities of the 200-miles regime and, at the same time, reflect the unique and longstanding tradition of friendship and cooperation which has characterized Canada/USA fisheries relations.

Applicable International Law

Since both Canada and the United States are parties to the 1958 Geneva Convention on the Continental Shelf, Article 6 of the Convention is the applicable rule of law for the determination of continental shelf boundaries between them. Article 6 of the Convention provides that continental shelf boundaries "shall be determined by agreement ... In the absence of agreement, and unless another boundary line is justified by special circumstances, the boundary is the median (equidistance) line ..."

Since the regime of 200-miles fishery zones is new, there is relatively little established legal guidance with respect to the delimitation of such zones between adjacent or opposite states. However, it is assumed that, for practical reasons, in most instances states will adopt the same boundaries for fisheries jurisdiction as for continental shelf jurisdiction.

USA Position

The United States has taken the position that the rule laid down in the 1958 Geneva Continental Shelf Convention must be interpreted in the light of the 1969 decision of the International Court of Justice in the North Sea Continental Shelf Cases. The United States maintains that a maritime boundary in the Gulf

of Maine area should reflect "special circumstances" which it alleges exist in the area and, specifically, that a maritime boundary in accordance with "equitable principles" should allocate all of Georges Bank to the United States. In the view of the United States, the concavity of the New England coastline and the convexity of the Nova Scotian coastline causes an equidistant line to be "pulled" toward the United States coastline, thereby creating a boundary that is not in accordance with "equitable principles". Also, the United States believes that the geological, geomorphological, and ecological nature of Georges Bank indicates that it is physically and legally the "natural prolongation" of the United States and that a boundary in accordance with "equitable principles" should reflect this alleged fact. An important point of the United States argument is that the proportional relationship between the lengths of the relevant coastlines should be reflected in the area to be delimited.

Canadian Position

The Government of Canada is of the view that, as both Canada and the USA are parties to the 1958 Geneva Convention on the Continental Shelf, they are bound to settle their continental shelf boundaries in accordance with the Conventional regime and, in particular, with the equidistance-special circumstances rule set out in Article 6. Since it does not believe that any "special circumstances" exist in the Gulf of Maine/Georges Bank area, it holds that the boundary should be determined by the application of the equidistance principle.

Canada does not accept that the regime of customary, international law, as defined and applied by the International Court of Justice between states not bound by the Continental Shelf Convention, is applicable to the determination of continental shelf boundaries between Canada and the USA. Moreover it does not accept the factors identified by the International Court of Justice as being legally relevant to the delimitation of the continental shelf boundary in the North Sea Cases are present in the Gulf of Maine area. In particular, it does not believe that the geology, geomorphology, and ecology of the area show that Georges Bank is the "natural prolongation" of the USA. It believes that models based on a proportional relationship between the length of coastlines and the area to be delimited can be constructed according to varying criteria and can be used to support the positions of both governments. It maintains that the coastline of Nova Scotia must be accorded due weight in the delimitation of maritime boundaries and that the concavity of the coast in that area is amply compensated by the peninsula and islands protruding seaward of Massachusetts in the area of Cape Cod. Thus, even if the regime of customary international law based on "equitable principles" as defined by the International Court of Justice were applicable in the Gulf of Maine area — a proposition which the Government of Canada does not accept — Canada is of the view that the most equitable means for determining the boundary would be through the application of the principle of equidistance.

Canadian officials are of the view that Canada's legal position is strengthened by the fact that is has exercised jurisdiction over the continental shelf through the issues of oil and gas permits up to the line of equidistance dating from 1964. In 1965, there was an exchange of letters between Canadian and USA officials in which a USA official, in effect, indicated tacit agreement to the equidistance line as the continental shelf boundary between the two countries. Although the USA government was aware of the Canadian permits, it did not formally indicate its dissent until 1969.

Resource Arrangements

The importance of the boundary is directly related to the rich fisheries resources and potential hydrocarbon resources of Georges Bank. In an attempt to separate, to some extent, the issue of boundaries from the related economic questions, the Canadian side has put forward ideas on shared access resource zones in the boundary areas. In response, the USA side indicated it was prepared to pursue negotiations on resource arrangements only in conjunction with negotiations on a compromise boundary, i.e. between the Canadian and USA claims. However, circumstances have not proved conducive to pursuing negotiations on this basis. The actual location of the boundary will have important implications for the negotiation of mutually satisfactory resource arrangements.

Bilateral Talks

The last session of bilateral talks on the boundaries question took place in September, following which officials concentrated on the negotiation of an interim fisheries agreement to prevent a disruption of the fisheries during 1977 and to avoid prejudicing the boundary positions of both sides. The interim fisheries agreement signed on February 24 is being applied on a provisional basis by both sides pending the completion of USA ratification procedures. At the present time, officials in both countries are reviewing their respective position in anticipation of negotiations on permanent boundaries settlement and long-term resource agreement.

Third Party Settlement

Both Canada and the United States have indicated they would prefer to settle their outstanding maritime boundaries through negotiation. However, they have also taken the position that, should it not prove possible to obtain negotiated settlements within a reasonable time frame, for example by the end of 1977, the two countries will have to consider third party procedures.

Chronology

See attachment.

DEPARTMENT OF EXTERNAL AFFAIRS
June 10, 1977.

Gulf of Maine Maritime Boundary Negotiations

A Chronology

1964-65 — Canada issued oil and gas permits in Gulf of Maine up to and straddling the line of equidistance.

1965 — Exchange of correspondence and maps between USA and Canadian mineral resource management officials (U.S. Department of the Interior and the then Canadian Department of Northern Affairs and National Resources) for purpose of ensuring agreement as to the positioning of the median line.

1969	USA rejected the validity of Canadian exploration permits for any part of Georges Bank and proposed negotiations on delimitation of the continental shelf.
1970	Canada/USA talks in which Canada claimed equidistance boundary and USA argued for boundary following Northeast Channel.
1975	USA informed Canada that the Department of the Interior would be calling for oil and gas nominations in the Gulf of Maine area including that part of Georges Bank claimed by Canada, and that the United States Geological Survey would be conducting drilling operations. Canada protested proposed USA action. Canada protested promulgation by USA under Bartlett Act of sedentary species fisheries limits (i.e. "lobster limits") running through the Northeast Channel.
December, 1975-May, 1976	Canada/USA talks in which both sides elaborated their respective legal position on the Gulf of Maine boundary.
July, 1976	Canada/USA talks which were broadened to include *(a)* delimitation of fisheries zone as well as continental shelf, and *(b)* all four maritime boundaries, i.e. in the Gulf of Maine, seaward of Juan de Fuca Strait, seaward of Dixon Entrance, and in the Beaufort Sea.
September, 1976	Canada/USA talks focusing on resource arrangements.
November 1, 1976	Canada published proposed Order-in-Council extending fisheries jurisdiction to 200 miles on Atlantic and Pacific coasts. Proposed Order included coordinates of fisheries zone, plus clause stating that coordinates were without prejudice to boundaries negotiations.
November 4, 1976	State Department published Notice in U.S. *Federal Register* stating it did not accept all of the Canadian coordinates and setting out coordinates of its continental shelf and proposed fisheries jurisdiction. Coordinates were without prejudice to boundaries negotiations.
December, 1976	Canada formally advised USA that a number of its coordinates were not acceptable to Canada.
January 1, 1977	Canadian 200-miles fisheries zone came into effect. Canada exercised unilateral forbearance in the exercise of its jurisdiction against USA fishermen.
February 24, 1977	Signature of Canada/USA interim fisheries agreement for 1977 following Prime Minister Trudeau's visit to Washington.
March 1, 1977	USA 200-miles fisheries zone came into effect.
Since March 1	Canada and USA have applied provisions of interim fisheries agreement on a provisional basis, pending Congressional legislation ratifying the agreement.

Annex 13

"EXTENSION OF FISHERIES ZONE", NOTES FOR A STATEMENT BY THE SECRETARY OF STATE FOR EXTERNAL AFFAIRS, THE HONORABLE DON JAMIESON, IN THE HOUSE OF COMMONS, OTTAWA, 19 NOVEMBER 1976

I stated in the House on November 5, 1976, that I would be reporting on my recent talks in Paris regarding Canada/France fisheries questions. I propose to do that today but first I think it would be useful to review in a more general way developments relating to the implementation of our 200 mile fisheries zone.

The decision to extend our fisheries zones on the Atlantic and Pacific coasts was taken in light of the urgent need to halt the rapid depletion of our fish stocks and arrest the decline of our inshore fisheries industry, a situation which had reached crisis proportions. The urgent nature of this problem required us to take action before conclusion of the Law of the Sea Conference where fisheries questions are among the many matters being discussed. Nevertheless the new extended jurisdiction is in conformity with the consensus emerging at the Law of the Sea Conference. The principle is now firmly embodied in the Revised Single Negotiating Text that a coastal state has the sovereign right to manage the living resources of the seas in a 200 mile zone adjacent to its shoreline. The main features of the new Canadian regime are based on the relevant provisions of the RSNT.

A number of countries have enacted, or are soon to enact, 200 mile zones including Mexico, Norway, Denmark, France, the U.K., and the U.S.A. Most recently, the Foreign Ministers of the Nine agreed that a European Economic Community 200 mile fisheries zone should be in place as of January 1, 1977. Altogether there are now some 50 states which have already, or will soon establish extended fisheries zones beyond 12 miles, and in many cases, as far as 200 miles.

Thus from the standpoint of both emerging treaty law and cumulative state practice there is a sound basis in international law for the action Canada has taken to protect the living resources in waters contiguous to its shoreline.

Canada has not only acted in accordance with emerging international law but has also made every effort to take into account the interests of those states directly affected by our extended jurisdiction. We have been conscious of the need to avoid disputes with other countries stemming from our new fisheries management regime. For this reason, Canada has taken a number of steps internationally, aimed at achieving a smooth transition to our new 200 mile jurisdiction regime.

Our first priority was to obtain agreement within ICNAF on fishing quotas for the calendar year 1977 which would correspond to Canadian requirements within the 200 mile zone. At Canada's insistence, total allowable catches of stock have been set at levels low enough to ensure rebuilding of threatened species over a period of time. There will be a further meeting of ICNAF in December in Spain to deal with the quotas on a few remaining stocks.

The Commission, at our urging, is in the process of examining the role it might play in future. We have given formal notice of Canada's intention to withdraw from the Convention, as has the U.S.A. I am hopeful, however, that ICNAF can make the necessary adjustment to Canada's exclusive jurisdiction, management and enforcement in the 200 mile zone, and that new arrangements

will preserve the long tradition of international cooperation, particularly in the field of scientific research, which has grown up within the Commission. On this basis Canada could continue to play a full and active part in the work of the Commission. After the December meeting, we will be in a better position to assess what our attitude toward ICNAF should be for the coming year.

Our next priority was to negotiate bilateral agreements with those countries which together account for almost 90% of the foreign fishing operations off our coasts. The Government has now concluded an intensive round of bilateral negotiations, and fisheries agreements are now in place with Norway, U.S.S.R., Poland, Spain and Portugal. These agreements set out the terms and conditions that Canada will apply in permitting foreign fishermen, under Canadian management and control, to harvest certain stocks surplus to our needs.

In addition we have required the submission of fishing programs from all members of ICNAF who wish to fish off our coasts in 1977. This information is essential in order to ensure that these projected fishing operations are compatible with the quotas established by ICNAF with Canadian concurrence.

The problems on the Pacific coast are no less important and we are taking the steps which we consider necessary to ensure that Canadian jurisdiction in our new Pacific zone is effective. Our recent bilateral agreements with the U.S.S.R. and Poland cover the Pacific coast and we are engaging in consultations with other countries that have previously fished there.

The Government will also take early action to promulgate an extended fisheries zone in the Arctic. There is no foreign commercial fishing in waters off the Canadian Arctic coast nor are there depleted stocks requiring urgent conservation measures. However, the Government is fully alive to the need to safeguard the fishing interests of the Inuit and to provide for the future development of fisheries in the Arctic area. Consequently the Government has decided to bring into force a 200 mile fisheries zone in the Arctic by March 1, 1977.

I have outlined the steps we have taken to ensure a smooth transition to the 200 mile jurisdiction regime. The response has been encouraging. Nations fishing off our coasts have shown a willingness to adapt to the facts of the resource crisis and to the new legal regime which Canada is bringing in.

I now wish to draw your attention to an important aspect of the notice of Order-In-Council tabled by my colleague, the Minister of Fisheries and the Environment, on November 2, namely, the geographic coordinates defining the fishing zones in which Canada will be exercising jurisdiction. If members agree, I would be prepared to table maps prepared by the Canadian Hydrographic Service illustrating the new zones as prescribed by the coordinates in the Order-In-Council. These coordinates raise maritime boundary implications with neighbouring countries. The Order-In-Council makes express reference to boundary delimitation talks with the U.S., France and Denmark and affirms that the limits of the Canadian fishing zones as defined in the Order are "without prejudice to any negotiations respecting the limits of maritime jurisdiction in such areas; . . .".

The United States Government has responded to the publication of the Order-In-Council by issuing in the form of a Notice in their *Federal Register* of November 4, 1976, a list of coordinates defining the lateral limits of its prospective fisheries zone, as well as its continental shelf in the areas adjacent to Canada. In a number of areas these lines differ from the Canadian coordinates. We do not accept these lines and we are so informing the United States Government through diplomatic channels. I am pleased to note however that the U.S. Government has mirrored the approach taken in the Order-In-Council by making it clear in the *Federal Register* Notice that the coordinates therein are

without prejudice to any negotiation with Canada or to any positions which may have been or may be adopted respecting the limits of maritime jurisdiction in the boundary areas adjacent to Canada.

During my visit to France, I had the occasion to discuss with the French Foreign Minister our plans for extension of jurisdiction by January 1 in the area off our east coast. At that time precisely, on November 3, the European Community officially announced the decision taken by all member countries to extend their jurisdiction over fisheries to 200 miles by January 1, 1977. While the new management regime will be decided by the Community, the determination of the exact areas to be brought under extended jurisdiction, of course, continues to belong to the individual member countries, and the matter of delimitation of waters off St. Pierre and Miquelon remains a question for Canada and France to work out. What I particularly wished to underline in Paris, and my French colleague was quick to respond favourably, relates to the urgent need for both our countries to put in place by the end of this year interim arrangements in waters close to the French islands. Such arrangements would avoid conflicting fisheries regulations, on matters such as enforcement and licensing. I am confident that as a result of those discussions in Paris, both sides have a keener appreciation of the necessity of early agreement on these arrangements.

Interim arrangements are especially necessary in the absence of agreed maritime boundaries off the coasts of the French islands of St. Pierre and Miquelon. While France has given itself enabling legislation to extend jurisdiction off any of its coasts, there has been no indication to date by France of its intentions regarding the area off St. Pierre and Miquelon. In the preamble to the Order-In-Council extending jurisdiction, we clearly indicated that the establishment of an extended fishing zone is not intended to prejudice ongoing consultations on the delimitation of waters with France, and this matter is also being pursued.

Another important factor in our fisheries relations with France is that the bilateral fisheries agreement concluded in 1972 grants certain rights to French vessels, and in particular, to vessels registered in St. Pierre and Miquelon, in the areas that are now under Canadian jurisdiction, that is, in our 12 mile territorial sea and in the Gulf. These rights, which are not modified by the creation of our new zones, were granted in exchange for the abandonment by France of important treaty rights in extensive areas dating back to the time of French settlement in the area. Similar rights were granted to Canadian vessels off the coast of St. Pierre and Miquelon. We have made very clear to the French that the rights granted to their vessels by this agreement are exclusive to France, and cannot in any way be claimed or exercised by other members of the European Community.

The 1972 bilateral agreement also refers to the possibility of extension by either country. In Article 2, the Agreement states that each country will, in the event of a modification of the areas under its jurisdiction, undertake on the basis of reciprocity to recognize the right of nationals of the other country to continue to fish in the modified areas, under rules and regulations to be applied by the country having jurisdiction, including, in our view, regulations on quotas, licensing and enforcement.

Annex 14

D. G. CROSBY, *DEFINITION OF THE CONTINENTAL SHELF: ARTICLE 76, L.O.S. CONVENTION — APPLICATION TO CANADIAN OFFSHORE*, LAW OF THE SEA INSTITUTE, *PROCEEDINGS*, ANNUAL CONFERENCE, HALIFAX, 24 JUNE 1982

D. SHERWIN, "COMMENTARY", IN F. T. CHRISTY, JR., T. A. CLINGAN, JR., J. K. GAMBLE, JR., H. G. KNIGHT AND E. MILES, EDS., LAW OF THE SEA INSTITUTE, *PROCEEDINGS*, 9TH ANNUAL CONFERENCE, 6-9 JANUARY 1975, PP. 193-197

[Not reproduced]

Annex 15

Aide-Mémoire from Embassy of Canada to the United States Department of State, Dated 7 March 1983

Aide-Mémoire from the United States Department of State to Embassy of Canada, Dated 8 April 1983

AIDE-MÉMOIRE FROM EMBASSY OF CANADA TO THE UNITED STATES DEPARTMENT OF STATE, DATED 7 MARCH 1983

Canadian Embassy Ambassade du Canada

Canadian and U.S. negotiators initialled a draft Pacific Salmon Treaty in February, 1983. In presenting it to the Government of Canada and the Government of the United States, they expressed the view that it represented "a fair and balanced accord which will permit both Parties to overcome severe conservation problems and provide opportunities to increase production through enhancement".

The Canadian authorities have noted the press release issued by the Governor of Alaska on February 21 indicating that he was not prepared to endorse the draft Treaty and that he was calling for further negotiations. Such views are not limited to the United States. Important elements of the Canadian fishing industry have indicated their opposition to the draft Treaty.

It is now up to the Canadian and U.S. Governments to decide whether to proceed with the draft Treaty, on the basis of their own perceptions of the balance of advantages and disadvantages it may offer. In any event, however, so far as the Government of Canada is concerned, the *status quo* cannot be maintained. The Canadian authorities believe that it will be difficult to continue the progress that has been made in the regulation of intercepting fisheries on an informal basis over the past two years, in anticipation of the conclusion of the Treaty. The following points, in particular, should be noted:

(1) Although the Canadian authorities would still seek to develop cooperative arrangements to rebuild depressed chinook stocks, it would be unreasonable to expect them to take the necessary measures in the sport and commercial fisheries without corresponding action in Alaska. Chinook conservation is a matter of serious concern to both sides, as evidenced by U.S. Senate Resolution 455 of October 1, 1982.

(2) Canadian hatcheries on the west coast of Vancouver Island are contributing increasing numbers of chinook salmon to Alaskan fisheries, with reduced benefits to Canadian fishermen; Canada would be obliged to consider conducting these hatcheries to the production of coho salmon.

(3) The situation on the transboundary rivers, notably the Yukon, Stikine and Taku, would be especially difficult. The Canadian authorities, while remaining responsive to conservation needs, would have no choice but to have a vigorous fishing presence on these rivers.

(4) With respect to Fraser River sockeye and pink runs, it may be expected that Canada would increase its catches outside the Convention Area, particularly for pink salmon in 1983.

(5) Finally, with regard to the Fraser River, Canada shares with the USA the desire to ensure transition arrangements that take into account the achievements of the present Salmon Commission. Considering the very weak sockeye run expected in 1984, Canada would wish the Salmon Commission to continue to regulate the fisheries in the Convention Area during that year. The Canadian authorities, however, cannot see the continuation of present *arrangements beyond the 1984 season, outside the wider framework of* cooperation envisaged in the present draft Treaty.

Washington, D.C.
March 7, 1983.

AIDE-MÉMOIRE FROM THE UNITED STATES DEPARTMENT OF STATE TO EMBASSY OF CANADA, DATED 8 APRIL 1983

The Department refers to your Aide-Mémoire of March 7, 1983, concerning the Treaty between the Government of the United States of America and the Government of Canada concerning Pacific salmon.

The Department wishes to assure the Government of Canada that the United States Government believes a treaty between our two Governments is essential if the Pacific salmon resource, which intermingles and is subject to harvest by fishermen of both countries, is to be saved from destruction. The United States Government believes the principles embodied in the proposed treaty provide a foundation to begin correcting the severe conservation problems and to encourage increased salmon production.

In reviewing the proposed treaty, the Department notes several points that could be well served by further elaboration or clarification. This might also help allay the concerns of affected United States interests with various treaty provisions. To this end, we suggest that officials of our governments meet in the very near future to explore these issues.

Department of State
Washington, D.C. April 8, 1983.

Annex 16

INTERNATIONAL HYDROGRAPHIC BUREAU, *CHART SPECIFICATIONS OF THE I.H.O.; SECTION 400, HYDROGRAPHY AND NAVIGATIONAL AIDS*, 1979, PP. 4-11 AND 4-12

CANADA HYDROGRAPHIC SERVICE, *SYMBOLS AND ABBREVIATIONS USED ON CANADIAN NAUTICAL CHARTS*, CHART 1, JULY 1981, P. 18

[Not reproduced]

Annex 17

J. A. GULLAND, *GUIDELINES FOR FISHERY MANAGEMENT*, FOOD AND AGRICULTURE ORGANIZATION, INDIAN OCEAN PROGRAMME, INDIAN OCEAN FISHERY COMMISSION, IOFC/DEV/74/36, SEPTEMBER 1974, P. 2

[Not reproduced]

Annex 18

AIDE-MÉMOIRE FROM EMBASSY OF CANADA TO THE UNITED STATES DEPARTMENT OF STATE, DATED 4 JANUARY 1974

AIDE-MÉMOIRE FROM THE UNITED STATES DEPARTMENT OF STATE TO EMBASSY OF CANADA, DATED 22 APRIL 1974

AIDE-MÉMOIRE FROM EMBASSY OF CANADA TO THE UNITED STATES DEPARTMENT OF STATE, DATED 4 JANUARY 1974

The Canadian Government has the honour to refer to the United States Aide-Mémoire of June 28, 1973, including the text of a draft treaty on United States-Canada territorial disputes.

The Canadian Government is conscious of the difficulties which have arisen in recent years in respect of the waters situated in the vicinity of Machias Seal Island and North Rock in the Gulf of Maine area and of the A-B Line in the Dixon Entrance area. Mindful of the long tradition of friendship and cooperation which has characterized the relations between Canada and the United States and anxious to resolve any outstanding disputes through appropriate procedures, the Canadian Government wishes to reiterate its readiness to engage in meaningful consultations, or negotiations where appropriate, with regard to any problems which the United States authorities might wish to raise. The Canadian Government also recognizes that in some cases it may be appropriate to submit certain questions to third party adjudication as an acceptable procedure for the successful settlement of disputes.

Before Canada could envisage referral to third party adjudication in any matter, it must be satisfied that all efforts have been made to reach a solution through normal bilateral consultations or negotiations and that its position would not be prejudiced by the very terms of any agreement to adjudicate.

The United States proposal to submit to adjudication the question of which of the parties is the lawful sovereign of Machias Seal Island and North Rock would of itself put Canada's long-standing unquestioned title into question. There is no evidence to support any United States claim to sovereignty over these islands and indeed the only evidence that the United States has ever asserted such a claim appears to be the recent United States allegation that there is a dispute of some kind in relation to the status of the islands which ought to be resolved. Canada has long-exercised undisputed sovereignty over these islands and the fact that Canada at the same time has exercised restraint in dealing with intrusions of United States fishing vessels into Canadian waters surrounding the islands cannot and must not be construed as implying that Canada has even informally agreed not to attempt to exercise jurisdiction over United States fishing vessels in that area. Such an implication would, of course, make it more difficult to continue to exercise similar restraint in the future.

In the proposed United States draft treaty, Canada would also be called upon, in advance of adjudication, to agree that the two islands in question will be "disregarded in delimiting the respective maritime jurisdiction of the parties, including their respective rights on the natural resources of the continental

shelf". Such a provision would demand an outright concession on the part of Canada while at the same time implicitly reflecting on the validity of the United States claim to sovereignty. In any event, Canada's sovereignty over the islands is a material factor to be taken into account in the negotiation of the continental shelf between the two countries.

In these circumstances, the Canadian Government is not prepared to agree to adjudication regarding the status of Machias Seal Island and North Rock.

As to the question of the status of the "A-B Line", it has been the long-standing Canadian position that this line constitutes a maritime boundary between the two countries. Nevertheless, this area may lend itself to somewhat different treatment than Machias Seal Island and North Rock. The Canadian Government is prepared to consider the entire matter in the light of the legislative measures adopted and the practices maintained by the two parties, as well as on the basis of international law as it has developed over the years.

In conclusion, the Canadian Government would suggest that it may be desirable to have early consultations with a view to developing practical arrangements for the purpose of minimizing incidents that have occurred from time to time to the extent that such arrangements may be appropriate.

Washington, D.C.
January 4, 1974.

AIDE-MÉMOIRE FROM THE UNITED STATES DEPARTMENT OF STATE TO EMBASSY OF CANADA, DATED 22 APRIL 1974

The Department of State refers to its aide-mémoire to the Embassy of Canada of June 28, 1973, proposing negotiation of a treaty between the United States and Canada to submit to adjudication disputes regarding sovereignty over Machias Seal Island and North Rock in the Gulf of Maine, and regarding the status of the A-B Line in the Dixon Entrance, and to Canada's reply to this proposal, dated January 4, 1974.

The Department notes with disappointment the Government of Canada's unwillingness to negotiate a treaty providing for the peaceful adjudication of these disputes. Regarding the status of Machias Seal Island and North Rock in the Gulf of Maine, the United States cannot share the Government of Canada's view that Canada's title to these islands is "unquestioned". The unsettled issue of sovereignty over Machias Seal Island and North Rock has been noted by United States and Canadian officials for a number of years, and therefore the United States cannot agree with Canada that there is no dispute with respect to these islands. Accordingly, the United States reserves its position with respect to this issue. The United States also notes the Government of Canada's apparent unwillingness at this time to submit to adjudication the status of the A-B Line, and similarly must reserve its position with respect to this issue.

However, the Department notes the Government of Canada's expressed willingness "to consider the entire matter" of the A-B Line "in light of the legislative measures adopted and the practices maintained by the two parties, as well as on the basis of international law as it has developed over the years".

The Department also notes Canada's expression of interest in early consultations to develop "practical arrangements for the purpose of minimizing incidents that have occurred from time to time to the extent that such arrangements may be appropriate". The Department of State is equally desirous of such consultations to consider possible means to improve the present informal arrange-

ments to minimize the likelihood of unfortunate incidents in both of the areas under consideration. It is suggested that the proposed meeting between the Legal Advisers of the Department of State and of the Department of External Affairs would provide an appropriate forum to explore these questions and to consider the entire matter of unsettled boundary issues with a view to developing means satisfactory to both Parties to resolve such issues.

Department of State
Washington, D.C., April 22, 1974.

Annex 19

(193) FIGURE: APPLICATION OF THE EQUIDISTANCE METHOD GIVING "HALF EFFECT" TO THE SOUTHWESTERN COAST OF NOVA SCOTIA

Volume II

ANALYTICAL ANNEXES TO THE REPLY

Annex 20

A CRITIQUE OF THE ANALYSIS IN THE CANADIAN COUNTER-MEMORIAL OF THE CONCEPT OF A STOCK

1. A "stock" is a community of fish or shellfish that, under normal circumstances, is capable of maintaining itself without immigration from other communities of the same species. This concept is fundamental to fishery science and management. On the one hand, each stock must be managed as a unit, because fishing a stock in part of its range will affect the abundance of that stock throughout its range. On the other hand, separate stocks of the same species may be managed independently, because fishing one stock will not affect the abundance of the other stock.

2. In its Memorial, Canada defines stocks as "relatively discrete populations that show limited exchange (in the genetic sense) with contiguous populations [1]", and acknowledges the existence of "relatively discrete *stocks* on Georges Bank [2]". Nevertheless, in its Counter-Memorial, Canada implies that "stock" is an " *'abstract'* " concept of " 'misplaced concreteness' " that ill fits the "untidy" world of nature [3].

3. Notwithstanding Canada's disclaimers, the concept of a "stock" is a practical one that is critical to fishery management precisely because it does correspond to biological realities. Indeed, the concept is fundamental to Canada's own fishery management theory and practice, both international and domestic.

4. *Canada itself has promoted the incorporation of the concept of a stock into international law.* A working paper distributed at the Third United Nations Conference on the Law of the Sea by the delegations of Argentina and Canada stated that "[f]ish stocks are single biological units and must be managed as such [4]". That paper was concerned with the problem of stocks that straddle the 200-nautical-mile resource zone of a State and the areas outside and adjacent to the zone. At the Conference,

[1] Canadian Memorial, para. 103, n. 23.

[2] Canadian Memorial, para. 103. [Emphasis in original; citation omitted.]

[3] Canadian Counter-Memorial, paras. 209-211. [Emphasis in original.]

[4] Working Paper Submitted by the Delegations of Argentina and Canada, "The Special Case of Fish Stocks which occur both within the Exclusive Economic Zone and in an Area beyond and immediately adjacent to it", submitted at the Second Part of the Ninth Session of UNCLOS III, Geneva, 1980, [hereinafter *Joint Working Paper*], p. 1. United States Memorial, Annex 91, Vol. IV.

Canada argued that, because the consistent management of a stock throughout its range was so critical to fishery conservation, coastal-State fishery jurisdiction should be extended beyond the exclusive economic zone where necessary to include the entire range of the straddling stock. The *Joint Working Paper* related conservation problems to the concept of a stock:

> "The fundamental point is that the fish stock which occurs both within the EEZ of a coastal State and the high seas beyond and immediately adjacent to it is a single biological unit. Experience off the coasts of countries where these fish stocks occur has demonstrated that overfishing of such resources in the seas beyond the economic zone will result in drastic reductions of the biomass of the stocks, and, accordingly, of the yield both within the coastal state's EEZ and in the high seas adjacent to this zone.
>
> . . . .
>
> "Application of a different management regime inside and outside 200 miles to a single stock inevitably results in depletion.
>
> . . . .
>
> "Conservation considerations alone then make it imperative that stocks occurring both within the Exclusive Economic Zone and in the seas beyond and immediately adjacent to its [sic] be treated as a single management unit and, through ensuring consistency of sound conservation measures for the stock throughout its entire range, guarantee the existence of a stable productive resource [1]".

5. Canada also submitted to the Third Law of the Sea Conference a "Working Paper on Management of the Living Resources of the Sea", which discussed several "scientific principles", including the principle that "stocks should be managed as individual units [2]". The paper explains the concept of a stock and its significance to fishery management. It is also noteworthy, in light of the contrary assertions in the Canadian Counter-Memorial, that the paper explains that the areas inhabited by coastal stocks "are usually well-defined":

> "Few species form homogeneous mixtures of individuals throughout the species' range. Rather these individuals tend to be grouped into *separate populations or stocks, often associated with particular oceanographic features, such as current systems or distinct shelf areas, with little interchange between the separate groups.* Each group will have its own particular set of biological characteristics

[1] *Joint Working Paper*, pp. 1-3.

[2] Working Paper on Management of the Living Resources of the Sea, submitted by Canada, Report of the Committee on the Peaceful Uses of the Sea-Bed and the Ocean Floor Beyond the Limits of National Jurisdiction, [hereinafter *Canadian Working Paper*], pp. 164, 172-173, U.N. Doc. A/AC. 138/SC.II/1.8. United States Memorial, Annex 91, Vol. IV.

such as growth rate or mortality rate, dependent on its genetic makeup and the environment which it inhabits. Each will respond to fishing pressure in a different way, depending on the size of the particular stock and its unique characteristics. Management procedures should be designed to take account of the varying characteristics of each stock.

"*The areas inhabited by such stocks will vary in size, but for coastal species are usually well-defined.* For some stocks, the distribution may extend to coastal waters of several adjacent states; for others the distribution will be confined to the adjacent waters of a single state. In any case, the stock must be managed as a whole if management is to be effective [1]".

Mr. J. A. Beesley, a Canadian representative to the Seabed Committee, also noted that fish stocks inhabit well-defined areas. His statement has been summarized as follows:

"In exercising its management authority, the coastal State would have to take account of certain biological principles. Firstly, each population within a species had its unique characteristics and, with the exception of large pelagic species and marine mammals, normally inhabited well-defined areas [2]".

6. In part as a result of Canada's effective advocacy, the concept of stocks became an integral part of the Convention adopted by the Third United Nations Conference on the Law of the Sea. For example, Article 63 directs States to seek to agree upon management measures for stocks—not species—that range through two or more exclusive economic zones and for stocks that straddle an exclusive economic zone and the sea beyond. Other articles dealing with anadromous stocks, catadromous species, and highly migratory species also are designed to promote consistency in conservation measures for each stock throughout its range [3].

7. The 1982 Law of the Sea Convention is not the only international instrument to recognize the concept of a stock. So, too, does the 1958 Geneva Convention on Fishing and Conservation of the Living Resources of the High Seas [4]. Although Canada is not a Party to that Convention,

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[1] *Canadian Working Paper*, pp. 172 and 173. [Emphasis added.]

[2] United Nations Committee on the Peaceful Uses of the Sea-bed and the Ocean Floor Beyond the Limits of National Jurisdiction, U.N. Doc. A/AC.138/SC.II/SR.25.

[3] United Nations Convention on the Law of the Sea, Articles 64, 66, and 67.

[4] Articles 3, 4, 5, 7, and 12 refer to "stock" or "stocks". The text of the Convention is *reprinted at* United States Memorial, Annex 5, Vol. I.

Canada has become a party to a number of other international agreements that use the concept of a stock [1].

8. The concept of a stock was already well-accepted during the period of the North American Council on Fishery Investigations (NACFI), which began its work in 1921. Much of the Council's work concerned the identification of separate fish stocks [2]. Indeed, tagging studies and larvae studies confirmed the existence of separate and distinct cod and haddock stocks on Georges Bank and the Scotian Shelf. These studies provided a biological basis for the division of statistical areas along the Northeast Channel.

9. Many of the management measures accepted by Canada as a member of the International Convention for the Northwest Atlantic Fisheries (ICNAF) were based upon the concept of a stock and the existence of discrete stocks. The United States Counter-Memorial contains a list of the ICNAF actions that explicitly or implicitly recognized separate Georges Bank stocks [3].

10. The stock concept also has been indispensable to the work of ICNAF's successor organization, the Northwest Atlantic Fishing Organization (NAFO). Dr. Wilfred Templeman, a leading fisheries scientist from Newfoundland, presented the keynote paper to a recent NAFO Stock Discrimination Symposium. He defined the term as follows: "[a] marine fish stock is a recognizable population unit for management purposes . . . [4]".

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[1] Among the Conventions to which Canada became party that incorporate the concept of a stock are: the International Convention for the Northwest Atlantic Fisheries, 8 Feb. 1949, United States Memorial, Annex 45, Vol. III; Protocol of 28 December 1956 to the Convention for the Protection, Preservation, and Extension of the Sockeye Salmon Fisheries in the Fraser River System, 290 U.N.T.S. 103; Protocol Amending the International Convention for the High Seas Fisheries of the North Pacific Ocean, 25 Apr. 1978, deposited by the United States pursuant to Article 50(2) of the Rules of Court; Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, 24 Oct. 1978, Canadian Memorial, Annex 9, Vol. I; Protocol of 29 March 1979 Amending the Convention for the Preservation of the Halibut Fishery of the Northern Pacific Ocean and Bering Sea, deposited by the United States pursuant to Article 50(2) of the Rules of Court; and Convention for the Conservation of Salmon in the North Atlantic Ocean, Mar. 1982, deposited by the United States pursuant to Article 50 (2) of the Rules of Court.

[2] NACFI *Proceedings*, Nos. I-III, (1921-1930, 1931-1933, 1934-1936). Deposited with the Court in connection with the United States Memorial pursuant to Article 50(2) of the Rules of Court.

[3] United States Counter-Memorial, Annex IA, Tabs A-H.

[4] NAFO SCR Doc. 82/IX/79, Ser. No. N585, p. 6. Deposited by the United States pursuant to Article 50(2) of the Rules of Court.

11. Within NAFO, as it had within ICNAF, Canada promotes management on the basis of the concept of a stock. For example, at the NAFO Annual Meeting in September, 1983, Canada proposed quotas for ten stocks of fish [1], including two stocks each for several species, and these were adopted by the Commission [2]. Thus, NAFO management measures for 1984 will be predicated upon the existence of separate stocks, as indeed they have been in all other years.

12. The concept of a stock has been fundamental to Canada's domestic management practices. For example, Canada's Task Force on Atlantic Fisheries noted that "each stock can be managed independently, because fish from one stock do not mix with those of another [3]". The Task Force refers throughout its report to specific stocks, and much of its data, such as catch data, deals with separate stocks [4]. To organize its data, the Task Force used the NAFO statistical areas (formerly the ICNAF Subareas), because "they made sense to us and *had the advantage of following the boundaries of fish stocks* and of statistical collection areas [5]".

13. The Task Force also commented upon the problem of stocks that straddle the 200-nautical-mile zone and the areas beyond, and the need to manage such stocks throughout their range:

> "The core of the current international allocations problem, from a Canadian perspective, is the susceptibility to over-fishing of groundfish outside the 200-mile limit. Fish stocks outside 200 miles on the Grand Banks and Flemish Cap are regulated by the Northwest Atlantic Fisheries Organization (NAFO). While Canada has a major say in how these stocks will be managed by NAFO, countries that are not members of NAFO (e.g., Spain) can and do carry out fishing operations beyond 200 miles without regard to internationally accept-

[1] "Canadian Proposal of quota allocations", Preliminary Report of the 5th Annual Meeting of the NAFO Fisheries Commission, p. 20. Deposited by the United States pursuant to Article 50(2) of the Rules of Court.

[2] The Press Notice for the 5th Annual Meeting stated that "[o]n the basis of the scientific advice provided by the Scientific Council from its meeting in June 1983, agreement was reached on conservation and management measures for 1984 regarding total allowable catches (TAC's) and allocations for certain fish stocks . . .". These included separate stocks of cod, of redfish, and of American plaice. Press Notice, Preliminary Report of the 5th Annual Meeting of the NAFO Fisheries Commission, pp. 17-18. Deposited by the United States pursuant to Article 50(2) of the Rules of Court.

[3] Task Force on Atlantic Fisheries, *Navigating Troubled Waters: A New Policy for Atlantic Fisheries* [the 'Kirby Report'], 1982, p. 366. [hereinafter *The Kirby Report*.] Deposited with the Court in connection with the United States Counter-Memorial pursuant to Article 50(2) of the Rules of Court.

[4] *The Kirby Report*, p. 24.

[5] *The Kirby Report*, p. 27. [Emphasis added.]

ed conservation measures, resulting in over-fishing of these stocks (which on the Grand Banks extend inside the 200-mile zone as well) [1]."

The Task Force discussion of straddling stocks is also of interest because it highlights some of the difficulties of fishery conservation by agreement, in particular, that of reaching agreement upon the economic issue of allocating a scarce resource [2].

14. Canada's 1983 Atlantic Groundfish Management Plan confirms the importance of the concept of a stock. As described in *Fisherman's Information,* a handbook distributed by the Canadian Department of Fisheries and Oceans, the Plan sets total allowable catches and domestic and foreign fishing quotas for 14 stocks of cod, including separate stocks in Subareas 5Y and 5Z on Georges Bank; 3 stocks of haddock, including a separate stock in Subarea 5; and a number of separate stocks of redfish, various flounders, and other species [3]. A number of Canadian fishery regulations that explicitly or implicitly recognize stock divisions occurring at the Northeast Channel have been listed previously in the United States Counter-Memorial [4].

15. In its Counter-Memorial, Canada misinterprets the concept of a stock in support of its incorrect accusation that the United States has rejected stock management [5]. As correctly explained in the joint Canadian and Argentine law of the sea working paper quoted above, the concept of a stock requires "consistency of . . . conservation measures for the stock throughout its entire range . . . [6]". This principle has been incorporated into the Fishery Conservation and Management Act of the United States, which requires that:

> "To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks shall be managed as a unit or in close coordination [7]."

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[1] *The Kirby Report*, p. 197.

[2] *The Kirby Report*, pp. 197-205.

[3] Atlantic Fisheries Service, Dept of Fisheries and Oceans, *Fisherman's Information-1983*, pp. 30-35. Deposited by the United States pursuant to Article 50(2) of the Rules of Court.

[4] United States Counter-Memorial, Annex I, Appendices A-D and F-H.

[5] Canadian Counter-Memorial, para. 229.

[6] *Joint Working Paper*, para.4, n.4, *supra*.

[7] Fishery Conservation and Management Act of 1976, 18 U.S.C. sec. 1851(a)(3). United States Memorial, Annex 8, Vol. I. Canada's suggestion that the United States management system requires "conservation by agreement" is inaccurate. [Canadian Counter-Memorial, paras. 230-233.] Under United States law, the Secretary of Commerce has the authority to impose consistent management measures on fisheries that cross different jurisdictions within the United States. [Fishery Conservation and Management Act, 16 U.S.C. secs. 1854(f) and 1856.] No such ultimate arbiter is available to impose solutions upon two or more States fishing the same stocks; hence, international fisheries can be managed effectively only by agreement.

16. On Georges Bank, the stocks of various groundfish species are so interrelated that they cannot be caught and allocated independently of one another, and therefore must be managed as a unit. Accordingly, the United States Interim Fishery Management Plan for Atlantic Groundfish does not manage this "complex of stocks" through individual stock quotas, which have been tried and found to be ineffective. Rather, the Plan uses a combination of measures: minimum mesh sizes, minimum fish sizes, and closed areas [1]. These regulations apply to vessels fishing a number of species throughout a certain area, which may be large enough to embrace several stocks of certain species. Nevertheless, the Plan faithfully respects the concept of a stock, and the dictates of United States law, because each stock is subject to consistent management measures throughout its entire range [2].

17. In brief, the concept of a stock is well-established in fishery science. Precisely because it does correspond to biological realities, the stock concept has become a powerful, indispensable tool of fishery management. Notwithstanding the reservations expressed in the Canadian Counter-Memorial, Canada's domestic and international fishery management practices demonstrate that Canada, too, recognizes the reality and the importance of the concept of a stock.

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[1] New England Fishery Management Council, Interim Fishery Management Plan for Atlantic Groundfish, 30 Sep. 1981. Deposited by Canada pursuant to Article 50(2) of the Rules of Court. The introduction of the Plan touched off a debate between Canada and the United States involving different theories of fishery management and disagreements between fishery scientists over the effect of various management options.

[2] Of course, the Plan cannot now ensure consistency of management measures throughout the range of these stocks, because it does not control Canadian vessels fishing in the disputed area as a result of the restraint exercised by the United States pending the resolution of this case.

Annex 21

A CRITIQUE OF THE ANALYSIS IN THE CANADIAN COUNTER-MEMORIAL OF STOCK DIVISIONS IN THE GULF OF MAINE AREA

INTRODUCTION

1. In its Memorial and Counter-Memorial, the United States demonstrated that separate stocks of 12 of the 16 commercially most important fish and shellfish species in the Gulf of Maine area are associated with Georges Bank, and that they are separated by the Northeast Channel from other stocks of the same species [1]. In its Counter-Memorial, Canada generally disputes the divisions of these 12 species but analyzes only four of them: cod, herring, sea scallops, and lobster [2]. A review of Canada's analysis of these four species, however, confirms that the Northeast Channel marks a division between Georges Bank stocks and Scotian Shelf stocks of most of the commercially important species in the Gulf of Maine area.

SECTION 1. Cod

2. In its Memorial, Canada acknowledged that cod was one of the species for which a separate Georges Bank stock had been identified [3]. Indeed, Canada identified this stock as a "resident" one, as distinguished from "migrant species that concentrate [on Georges Bank] during part of their life histories or on a seasonal basis [4]". In its Counter-Memorial,

(23)(42) [1] United States Memorial, paras. 55 and 57, and Figs. 7 and 36; United States (124)(126)-(134) Counter-Memorial, Annex 1, Vol. IA, paras. 76-99, and Figs. 32, 35, 37, 38, 39, 40, 42, 43, 44, 45, and 46. In an attachment to the letter of 20 January 1983 to the Registrar from the Agent of the United States, which was submitted in response to the letter of 15 December 1982 from the Agent of Canada, the United States showed that the Canadian Memorial and documents deposited in connection therewith were in agreement with the United States that 11 of these 12 species are divided naturally at the Northeast Channel. *See* United States Counter-Memorial, para. 45 [p. 37], n.3, and Annex 15, Vol. V.

[2] Canadian Counter-Memorial, paras. 213-224.

[3] Canadian Memorial, para. 103.

[4] Canadian Memorial, para. 106.

Canada retreats from this position, claiming that the description in its Memorial of a resident Georges Bank stock of cod "relates to the spawning period only [1]".

3. The discussion of cod in the Canadian Counter-Memorial and Volume I of the Annexes thereto [2] purports to rely upon a 1963 article by the fishery scientist J.P. Wise [3]. Wise based his article upon a tagging experiment of such inconsiderable numbers (fewer than 600 cod tagged on Georges Bank, only 225 tagged on Browns Bank, and a total of only 135 recaptured) that it is incapable of supporting any scientifically defensible conclusions [4]. In any event, this article provides little support for the new position regarding cod that Canada has adopted in its Counter-Memorial, inasmuch as the author concludes that:

> "[f]ish tagged on Georges Bank *are most often caught on Georges Bank*, but frequently turn up on Browns Bank and to the eastward in following summers. Fish tagged on Browns Bank *are caught mainly on Browns Bank*, but also to the *eastward* in following summers . . . [5]".

As will be discussed hereinafter, other Canadian researchers, not cited by Canada, have found a marked separation between the cod stocks of Georges Bank and those of Browns Bank.

4. Annex 1 to the United States Counter-Memorial described the three separate stocks of cod on Georges Bank, in the Gulf of Maine Basin, and on the Scotian Shelf [6]. The United States furnished evidence that these are separate stocks, including illustrations of separate spawning grounds, different growth curves, and separate larval distributions [7]. The United States established that the identification of these stocks also was supported by studies of meristics, tagging studies, parasite work, distribution patterns, and abundance trends [8].

[1] Canadian Counter-Memorial, para. 201. In fact, spawning aggregations are a very important element in the formation of unit stocks. *See* United States Counter-Memorial, Annex 1, Vol. IA, paras. 66-73.

[2] Canadian Counter-Memorial, paras. 214-216; and Annexes, Vol. I, paras. 141 and 142.

[3] J.P. Wise, "Cod Groups in the New England Area", in *Fishery Bulletin*, Vol. 63, No. 1, 1963, pp. 189-203. Deposited with the Court by Canada in connection with its Counter-Memorial pursuant to Article 50(2) of the Rules of Court.

[4] Other tagging studies in which many more cod were tagged and recaptured demonstrate more clearly the separateness of the Georges Bank cod stock from the Browns Bank cod stock. *See* para. 6, *infra*.

[5] Wise, *op. cit.*, p. 200. [Emphasis added.]

[6] *United States Counter-Memorial, Annex 1, Vol. IA, paras. 76-78.*

(123) [7] United States Counter-Memorial, Annex 1, Vol. IA, Figs. 29, 30, and 31, and para. 77.

[8] United States Counter-Memorial, Annex 1, Vol. IA, Table B, p. 97, and para. 76.

5. A Canadian fishery authority, G. M. Hare, in a work Canada has submitted to the Court, identified the same cod stocks as those identified in the United States Memorial, viz., separate stocks for Georges Bank, for Browns and LaHave Banks (on the Scotian Shelf), and for the Gulf of Maine Basin [1]. Hare also noted that ICNAF assessed the abundance of the Georges Bank stock with reference to ICNAF Division 5Z, the Gulf of Maine Basin stock with reference to Division 5Y, and the Browns-LaHave Banks stock with reference to Division 4X [2].

6. In the International Commission for the Northwest Atlantic Fisheries (ICNAF) and elsewhere, Canada consistently has treated cod stocks as separated from each other at the Northeast Channel and has proposed regulatory measures based upon this stock separation [3]. Canadian researchers also have acknowledged on many occasions the separateness of the cod stock on Georges Bank from those on the Scotian Shelf, as reflected in the following examples:

(i) D. J. Scarratt, in his 1982 atlas, summarized "the general status and 1980 TACs [Total Allowable Catches] for *various commercial cod stocks"*, describing the Browns Bank *stock* as "depressed", with a 16,000-ton TAC in 1980, and the Georges Bank *stock* as "stable", with a 35,000-ton TAC [4];

(ii) W.R. Martin, in a paper specifically prepared for the ICNAF Annual Meeting in 1953, stated: *"The deep-water Fundian [Northeast] Channel between Georges and Browns Banks* and the still deeper Laurentian Channel between St. Pierre Bank and Banquereau *are barriers to the movement of cod* [5]*"*;

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[1] G.M. Hare, *Atlas of the Major Atlantic Coast Fish and Invertebrate Resources Adjacent to the Canada-United States Boundary Areas*, Canadian Dept. of the Environment, Fisheries and Marine Service, Tech. Rpt. No. 681, 1977, p. 1. Deposited with the Court by Canada in connection with its Memorial pursuant to Article 50(2) of the Rules of Court.

[2] *Ibid.*

[3] United States Counter-Memorial, Annex 1, Vol. IA, para. 78, and Appendix A, listing ICNAF actions and Canadian Atlantic Fisheries Scientific Advisory Committee (CAFSAC) actions treating cod in Subareas 4 and 5 as separate from each other.

[4] D.J. Scarratt, ed., *Canadian Atlantic Offshore Fishery Atlas*, Canadian Special Publication of Fisheries and Aquatic Sciences 47 (Rev.), 1982, p. 49. [Emphasis added.] Deposited with the Court by the United States in connection with its Counter-Memorial pursuant to Article 50(2) of the Rules of Court. Scarratt listed a more northern Scotian Shelf cod stock, that of Banquereau-Sable Island, as "rebuilding" with a 60,000-ton TAC in the mid-1980s.

[5] W.R. Martin, "Identification of Major Groundfish Stocks in Subarea 4 of the Northwest Atlantic Convention Area", in *ICNAF Annual Proceedings*, Vol. 3,

(footnote continued on next page)

(iii) R. A. McKenzie reported that, of the more than 2,200 returns from some 21,000 cod tagged in the Bay of Fundy and along the Canadian Atlantic coast, only 11 were retrieved west of the Northeast Channel, i.e., on Georges Bank and in the Gulf of Maine Basin [1];

(iv) F. D. McCracken reported that, of 757 fish recaptured from a tagging experiment conducted near Lockeport (on the Atlantic coast of Nova Scotia) in which 1,804 cod were tagged, only seven were recaptured west of the Northeast Channel [2];

(v) R. G. Halliday noted that another Canadian scientist, W. Templeman, had concluded that "cod on Brown's and LaHave banks probably form a separate spawning stock from those on Georges Bank [3]". Halliday further noted that tagging experiments, combined with results of vertebral counts and parasitological studies, indicate that little mixing occurs between these stocks [4].

SECTION 2. Herring

7. In its Memorial, Canada recognized that a separate stock of herring was identified with and maintained on Georges Bank [5]. Canada also noted that, to the extent that the Georges Bank herring stock ranged beyond Georges Bank, there was "more mixing between stocks across the Great South Channel than across the Northeast Channel [6]". As was the case with cod, the Canadian Counter-Memorial retreats from the discussion of herring found in the Canadian Memorial. In its Counter-Memorial, Canada claims that its earlier statements related "to the

(footnote continued from the previous page)

Part 4, 1953, p. 57. [Emphasis added.] Deposited with the Court by the United States in connection with its Counter-Memorial pursuant to Article 50(2) of the Rules of Court. In the same paper, Martin also discussed haddock, another of the 12 most commercially important species in the area, whose stock division at the Northeast Channel Canada now appears to question. [Canadian Counter-Memorial, para. 212(f); and Annexes thereto, Vol. I, para. 140.] Martin noted that "[h]addock are more restricted to bottom than cod and for this reason Subarea 4 haddock are even more sharply separated from those in Subareas 3 and 5 than noted above for cod". *Ibid.*, p. 59. Of the Browns Bank haddock stock, he noted that "[t]his population differs sharply from that of Georges Bank to the west and LaHave Bank to the east". *Ibid.*

[1] R.A. McKenzie, "Atlantic Cod Tagging off the Southern Canadian Mainland", Fisheries Research Board of Canada, Bulletin No. 105, 1956, p. 69.

[2] F.D. McCracken, *"Cod and Haddock Tagging off Lockeport, N.S."*, Fisheries Research Board of Canada, Progress Reports of the Atlantic Coast Stations, No. 64, 1956, pp. 11 and 12.

[3] R.G. Halliday, "A Preliminary Report on an Assessment of the Offshore Cod Stock in ICNAF Div. 4X", ICNAF Res. Doc. 71/12, 1971, p. 1.

[4] *Ibid.*

[5] Canadian Memorial, para. 103.

[6] *Ibid.*

spawning period only [1]". Canada's discussion of herring plays down the significance of the separation of herring stocks that occurs at the Northeast Channel, emphasizing instead the fact that individuals from different stocks may intermingle during non-spawning periods [2].

8. In Annex 1 to its Counter-Memorial, the United States showed that herring from Georges Bank, the Gulf of Maine Basin, and the Scotian Shelf are divided into separate stocks associated with each of these features [3]. The United States also showed that the herring stock on Georges Bank has different characteristics from the herring stocks on the Scotian Shelf [4]. The United States provided evidence that these are separate stocks, including illustrations of their separate spawning grounds and larval distributions, and noted that the identification of these stocks was supported by studies of meristics, tagging studies, parasite work, growth studies, biochemical research, distribution patterns, and abundance trends [5].

9. Canada historically has recognized and acted upon the herring stock division that occurs at the Northeast Channel. Appendix B of Annex 1 to the *United States Counter-Memorial listed, as evidence of Canadian* acceptance of the separation between Georges Bank and Scotian Shelf herring stocks, ICNAF and CAFSAC actions in which the herring stocks in Subareas 4 and 5 were treated separately. Canadian fishery scientists also have recognized the Northeast Channel as a herring stock division. Thus, the Canadian scientist Hare noted that there is: (1) a Nova Scotia herring stock complex, which migrates between ICNAF Subareas 4X and 4W; (2) a separate Gulf of Maine Basin stock of herring; and, (3) a separate Georges Bank stock, with its "major spawning area" on "the northern edge of the bank", and which winters "far to the westward, south of Cape Cod [6]".

10. By quoting selectively from a statement by a United States representative at an ICNAF meeting, the Canadian Counter-Memorial implies that the United States does not believe that the Northeast Channel separates herring stocks. The Canadian quote of that statement is as follows:

> "'... *effective management schemes for herring must,* when applied to the migratory range of various herring stocks, be designed

[1] Canadian Counter-Memorial, para. 201.

[2] Canadian Counter-Memorial, paras. 201, 217, and 218. The fact that stocks may intermingle does not preclude the existence of separate stocks. *See* United States Counter-Memorial, Annex 1, Vol. IA, para. 65, n. 4.

[3] United States Counter-Memorial, Annex 1, Vol. IA, para. 79.

[4] *Ibid.*

(125) [5] United States Counter-Memorial, Annex 1, Vol. IA, Figs. 30, 33, and 34; Table B, p. 97; and paras. 79-82.

[6] Hare, *op. cit.*, p. 6.

> for the various stocks and *not be unduly limited by the rather arbitrary divisions within Convention Subareas* [1]".

The omission of the remainder of that statement leaves the impression that the United States did not believe that it was appropriate to apply ICNAF divisions to herring. The full statement, however, leaves no doubt that the United States believes that there are separate herring stocks associated with the Scotian Shelf, Georges Bank [2], and the Gulf of Maine Basin, and that these stocks should not be subdivided further. The statement by the United States representative continued:

> "[f]or example, it would seem that *the herring stock off southern Nova Scotia* which appears to overlap Divisions 4X and 4W *could be most effectively managed as a unit*. A *related problem* is posed by the extension of the *Georges Bank stock* into Subarea 6 [3]".

Accordingly, the United States went on to suggest:

> ". . . a catch quota for adult herring in Subarea 5Y, a quota for the 'Georges Bank' stock that in fact is fished in Subarea 5Z and Subarea 6, and a quota for the stock in 4XW [4]".

11. Other ICNAF documents relating to this period indicate that Canada recognized the separation between Georges Bank and Scotian Shelf herring stocks. Thus, Canada accepted the results of a report by the Standing Committee on Research and Statistics (STACRES) as it affected the Nova Scotia (Division 4Xa-4Wb) herring stock, including the statement in that report that "the juvenile fisheries of Nova Scotia do not in any way affect recruitment to either the Gulf of Maine stock or the Georges Bank stock [5]". Furthermore, during this same period, ICNAF Panels 4 and 5 recommended a draft resolution relating to proposals for the conservation of herring stocks prompted by the knowledge "that the

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[1] Canadian Counter-Memorial, para. 218. [Emphasis by Canada.] Quoting from *Special Commission Meeting on Herring—January-February 1972, Conservation of Herring, Memorandum by the United States*, ICNAF Serial No. 2680, Spec. Mtg. Comm. Doc. 72/1. Canadian Counter-Memorial, Annexes, Vol. IV, Annex 18. As the quotation indicates, the United States addressed arbitrary divisions "within" not "between", subareas.

[2] As was noted previously, this stock migrates seasonally along the southern New England shelf. United States Counter-Memorial, Annex 1, Vol. IA, para. 81, and (126) Fig. 35.

[3] *Special Commission Meeting on Herring—January-February 1972, Conservation of Herring, Memorandum by the United States*, ICNAF Serial No. 2680, Spec. Mtg. Comm. Doc. 72/1. [Emphasis added.]

[4] *Ibid.*

[5] *Special Meeting on Herring—January-February 1972, Canadian Proposals for the Nova Scotia Stock (Div. 4Xa-4Wb)*, ICNAF Serial No. 2728, Proceedings No. 3, App. I. Deposited with the Court by the United States in connection with its Memorial pursuant to Article 50(2) of the Rules of Court.

stock of herring found on Georges Bank (Division 5Z of Subarea 5) migrates westward and southward into an area designated by the Commission as Statistical Area 6 and is exploited there [1]".

12. A.W.H. Needler was the head of the Canadian delegation at these proceedings. In June of 1979, he described the early regulation of the herring stocks by ICNAF as follows:

> "ICNAF got the authority, the mandate, to recommend national allocations to governments in December 1971. . . . Within six weeks, ICNAF had, for the first time, established quotas, total allowable catches, and national allocations in the multination fishery. It had never been done before, and this was for the *three large* [Georges Bank, Gulf of Maine Basin, and Scotian Shelf] *herring stocks* [2]".

13. By stating that these herring stocks intermingle, Canada implies that the separate Georges Bank, Gulf of Maine Basin, and Scotian Shelf herring stocks do not exist [3]. Canada furnishes no support for its statement that the herring stocks intermingle. In Volume I of the Annexes to its Counter-Memorial, Canada relies upon a work by the Canadian fishery scientist W.T. Stobo in stating that "herring tagged at the entrance to the Bay of Fundy have demonstrated extensive southwest movement into the Gulf of Maine, beyond Cape Cod, and also northward to Cape Breton [4]". (92) Canada accompanies this statement with Figure 53 in Volume I of the (194) Annexes to its Counter Memorial, reproduced here as Figure 1A. In this illustration, Canada portrays six arrows crossing the Gulf of Maine Basin southwestward from Nova Scotia and one arrow rounding the tip of Nova Scotia and proceeding northeastward along the Scotian Shelf. The tagging upon which this figure is based was conducted in the Bay of Fundy and off southwestern Nova Scotia. In all, 343 herring

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[1] *Special Meeting on Herring—January-February 1972, Resolution Relating to 1972 Proposals for the Conservation of Herring Stocks in Subareas 4 and 5,* ICNAF Serial No. 2729, Proceedings No. 4, App. V. Deposited with the Court by the United States in connection with its Memorial pursuant to Article 50(2) of the Rules of Court.

[2] *Annual Meeting—June 1979, Statement by Dr. A. W. H. Needler (Canada),* ICNAF Serial No. 5520, Proceedings No. 7, App. IV. [Emphasis added.] Dr. Needler's comments on this occasion attest to Canadian recognition of the division at the Northeast Channel of more than just the herring stocks. He continued:

> "Within six months, ICNAF did the same for a score or so of groundfish stocks. In 1973, less than 18 months after it had the authority, ICNAF extended this system to almost all the stocks which are subject to international fishing".

Ibid.

[3] Canadian Counter-Memorial, paras. 201, 217, and 218.

[4] Canadian Counter-Memorial, Annexes, Vol. I, para. 139, citing to W.T. Stobo, *Movements of Herring Tagged in the Bay of Fundy - Update,* ICNAF Res. Doc. 76/VI/48, Serial No. 3834, 1976. Deposited with the Court by Canada in connection with its Counter-Memorial pursuant to Article 50(2) of the Rules of Court.

tags were retrieved [1]. Canada does not mention, nor does Canada's Figure (92) 53 reflect, that the preponderance (200) of the herring were recaptured in the same area in which they were tagged [2]. Another 64 tags, also disregarded in Canada's presentation, were recovered largely off New Brunswick, with a few of these retrieved along the Maine coast east of Mount Desert Rock [3]. Fifty-four herring travelled along the southwestern tip of Nova Scotia, then northeastward along the Scotian Shelf, and were recaptured off Cape Breton [4]. These 54 herring are represented in (92) Canada's Figure 53 by one arrow extending northeastward. The six arrows that Canada has drawn across the Gulf of Maine Basin reflect only 25 recaptures out of a total of 343 [5]. Only *one* of these 25 recaptures, or less than 0.3 per cent of the total recaptured, was from Georges Bank [6]. (194) *See* Figure 1B. This tagging study thus confirms the existence of a separate stock of herring identified with Georges Bank, separated from the herring stocks on the Scotian Shelf by the Northeast Channel.

14. Subsequent to the article relied upon by Canada, Stobo published another review of herring tagging studies from 1973 through 1981, in which 1,488 tagged herring were recaptured after release off southwest Nova Scotia [7]. Almost 94.4 per cent of the herring were recaptured from the Scotian Shelf and Bay of Fundy [8]. Fewer than 5.6 per cent were recaptured in the western portion of the Gulf of Maine Basin, and only two herring, or 0.001 per cent of those tagged, were recaptured on Georges Bank [9].

15. In brief, there is little evidence of herring migrations across the Northeast Channel between Georges Bank and the Scotian Shelf, but there is a definite connection, recognized by Canadian and United States scientists and previously acknowledged by Canada itself [10], between the herring on Georges Bank and those found on Nantucket Shoals and the southern New England shelf.

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[1] Stobo, 1976 *op. cit.*, p. 2, Table 1.

[2] Stobo, 1976 *op. cit.*, p. 2, Table 1; and pp. 10-15, Figs. 5a-c and 6a-c.

[3] *Ibid.*

[4] *Ibid.*

[5] Stobo, 1976 *op. cit.*, p. 2, Table 1.

[6] Stobo, 1976 *op. cit.*, p. 11, Fig. 5b.

[7] W. T. Stobo, *Scientific Council Meeting—June 1983, Report of the Ad hoc Working Group on Herring Tagging*, NAFO Serial No. N723, NAFO SCS Doc. 83/VI/18, 1983, Figs. 7, 8, 15, and 20.

[8] *Ibid.* Because of the way in which the data were reported in the study, this includes a few recaptures from along the Maine coast east of Mount Desert Rock.

[9] Stobo, 1983 *op. cit.*, Figs. 7, 8, 15, and 20.

[10] Paras. 7, 9, and 11, *supra.*

SECTION 3. Scallops

16. In its Memorial, Canada stated that "[w]hile it is not possible to state definitely that there is a discrete Georges Bank scallop stock, there are well identified discontinuities in the concentrations of scallops in the Gulf of Maine area", and that "[f]ollowing the pattern of these areas of concentration, major fisheries for scallops have developed on Georges Bank proper, in the Great South Channel-Nantucket Shoals area, and in the waters off southwest Nova Scotia [1]". Elsewhere in its Memorial, Canada described Georges Bank as offering a "habitat" for " 'resident' stocks" of a number of species, including scallops [2]. In its Counter-Memorial, Canada continues to recognize scallops as one of a number of species that "form separate stocks or aggregations on Georges Bank [3]". Nevertheless, by emphasizing the possibility that larvae from one bed eventually may settle in another bed, without explaining the significance of that fact [4], the presentation in the Canadian Counter-Memorial obscures the fact that the scallops on Georges Bank are virtually stationary, that they are associated with Georges Bank alone, and that there is a discontinuity at the Northeast Channel. What Canada fails to note is that, although larval drift connects the various scallop beds on Georges Bank, because of the pattern in which water circulates through the Gulf of Maine area, there is no larval drift between the Scotian Shelf and Georges Bank [5].

17. In its Memorial, the United States described a division at the Northeast Channel between the scallops of the Scotian Shelf and those of Georges Bank [6]. As a result of this break, fishing for scallops on Georges Bank, and management measures relating thereto, do not affect maintenance of the scallops on the Scotian Shelf [7]. In Annex 1 to its Counter-Memorial, the United States also described the connection, through the drift of pelagic larvae, among all of the scallop beds of Georges Bank (i.e., on the northern edge and northeast peak, the southeast part, and the Great South Channel), and between those scallop beds and the beds on the southern New England shelf [8].

18. Nothing in the Canadian Counter-Memorial or its Annexes refutes the division at the Northeast Channel between scallop beds, the interrelationships of the scallop beds on Georges Bank, or the connection of the

[1] Canadian Memorial, para. 104.

[2] Canadian Memorial, para. 106.

[3] Canadian Counter-Memorial, para. 212(f).

[4] Canadian Counter-Memorial, para. 221.

[5] United States Counter-Memorial, Annex 1, Vol. IA, paras. 94 and 95.

(23)(42) [6] United States Memorial, para. 55, and Figs. 7 and 36.

[7] *Ibid.*

[8] United States Counter-Memorial, Annex 1, Vol. IA, paras. 94 and 95.

Georges Bank beds with the beds to the southwest [1]. The Canadian presentation simply draws attention to United States acknowledgment that scallop larvae drift in the water before they settle to the seabed [2]. To this end, Canada quotes from the United States Final Environmental Impact Statement as it relates to the United States Fishery Management Plan for Atlantic sea scallops:

> " 'There are no observed biological differences that would lead to a separation of stocks *within the area regulated by this management plan* ... considering the long pelagic phase of the larvae ...' [3]".

Canada neglects to add, however, that the "area regulated by this management plan" was the United States Fishery Conservation Zone off the North Atlantic states, which extends northeastward *only to the Northeast Channel* [4]. This quotation thus supports the United States description of the connections among the scallop beds on Georges Bank; it does not reflect a connection between the scallops on Georges Bank and those on the Scotian Shelf. In view of the pattern in which water circulates through the area, passing from the Scotian Shelf and the Northeast Channel round the Gulf of Maine Basin before doubling back around Georges Bank [5], scallop larvae from the Scotian Shelf will not reach Georges Bank, whereas larvae from the beds on Georges Bank will circulate in the Georges Bank gyre and will, to some extent, drift southwestward along the southern New England shelf.

SECTION 4. Lobster

19. In its Memorial and Counter-Memorial, the United States described the separate stocks of lobster associated with Georges Bank and Browns Bank [6]. In his atlas on major Atlantic coast fish and invertebrate resources, discussed above with respect to cod and herring, the Canadian authority Hare depicts separate lobster concentrations on Browns Bank

[1] Canadian Counter-Memorial, paras. 221 and 222; and Annexes, Vol. I, para. 145.

[2] Canadian Counter-Memorial, para. 221; and Annexes, Vol. I, para. 145.

[3] Canadian Counter-Memorial, para. 221. [Emphasis added.]

[4] *See* the description of a "Management Unit", in *Fishery Management Plan, Final Environmental Impact Statement, Regulatory Impact Review for Atlantic Sea Scallops (Placopecten magellanicus)*, prepared by New England Fishery Management Council, in consultation with the mid-Atlantic Fishery Management Council and South Atlantic Fishery Management Council, Jan. 1982, p. 1.

(22) [5] *See* United States Memorial, Fig. 5.

(23)(42) [6] United States Memorial, para. 55, and Figs. 7 and 36; and United States Counter-Memorial, Annex 1, Vol. IA, para. 97.

and Georges Bank [1]. The Canadian Memorial does not address the stock structure of lobster. In its Counter-Memorial, however, Canada denies that the Northeast Channel is located between separate stocks of lobster, and goes so far as to claim that the Channel is an important area of concentration for lobster [2]. By its presentation of data concerning lobster concentrations, as well as the results of tagging studies, the Canadian Counter-Memorial and Volume I of the Annexes thereto obscures the separation that occurs at the Northeast Channel.

(89) 20. A comparison of Figure 40 in Volume I of the Annexes to the Canadian Counter-Memorial, reproduced here as Figure 2, with the original figures from which it was derived, found in a study by the (195) Canadian scientists Stasko and Pye and reproduced here as Figures 3 and (196) 4 [3], reveals major discrepancies. The two original figures show separate concentrations of fishing effort on the slopes of Browns Bank and Georges Bank, separated by the Northeast Channel. The Canadian representation (89) of this data in Figure 40 nonetheless implies that these separate areas are continuous, thereby extending across the Northeast Channel from Browns Bank to Georges Bank [4].

21. Canada also refers to tagging studies to buttress its assertions that Georges Bank lobster and Browns Bank lobster, and, indeed, all lobster in the Gulf of Maine area, are of one stock [5]. In fact, these and other tagging studies confirm the separation of Georges Bank lobster from

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[1] Hare, *op. cit.*, p. 8.

[2] Canadian Counter-Memorial, para. 212(a)(ii).

[3] *A. B. Stasko and R. W. Pye, Canadian Offshore Lobster Fishery Trends,* CAFSAC Res. Doc. 80/56, 1980, pp. 10-11, Figs. 2 and 3. Deposited with the Court by Canada in connection with its Counter-Memorial pursuant to Article 50 (195) (2) of the Rules of Court. Dotted areas in Fig. 3 indicate the Canadian lobster fishing locations from 1973 to 1979. The commercial catch per effort is shown in Fig. (196) 4. Because of the manner in which the data are presented in Fig. 4, numbers—showing the data for each year from 1973 to 1979—appear across the Northeast Channel. This does not mean that the lobster were caught in the Northeast Channel. The lobster catches shown in Fig. 4 were made in *the dotted areas* in Fig. 3 and *the shaded areas* in Fig. 4.

[4] This article also points out that there are population differences between the Georges Bank (Corsair Canyon) and Browns Bank lobster: the catch per unit effort on Browns Bank is increasing whereas the catch per unit effort on Georges Bank is decreasing. Stasko and Pye, *Canadian Offshore Lobster Fishery Trends, op. cit.*, pp. 1-4. Such differences are evidence of the lack of interdependence between the two stocks of lobster. In a separate work, the same authors note another indicium of the independence of these two stocks: the difference in their mean size. A.B. Stasko and R.W. Pye, *Geographical Size Differences in Canadian Offshore Lobsters,* CAFSAC Res. Doc. 80/57, 1980, pp. 1-12.

[5] Canadian Counter-Memorial, para. 224, and Annexes, Vol. I, para. 131 (b).

Scotian Shelf lobster. Canada refers to a Canadian study in which 28,226 tagged lobster were released off Port Maitland, Nova Scotia, over a period of more than 35 years [1]. Over 50 per cent of these were recaptured [1]. Most (80.8 per cent) of the lobster were recaptured within the area in which they were released, and an additional 14.6 per cent were recaptured within 18.5 kilometers of the release area [1]. Only 4.1 per cent were recaptured 18.5 kilometers or more from the Nova Scotia fishing area in which they were released [2]. The few lobster (0.2 per cent of the total recaptured) that moved 74 kilometers or more were recaptured mainly in the *inshore* fisheries of the Bay of Fundy and the Gulf of Maine [3]. The lobster moved principally to the northeast and to the southeast along the coast [4]. Only *two* lobster, of the more than 14,000 recaptured, were recaptured on Georges Bank [5].

(90) 22. Figure 41 in Volume I of the Annexes to the Canadian Counter-Memorial, reproduced here as Figure 5, is redrawn from a figure in Campbell's article [6]. The Canadian figure purports to show "extensive migrations [of lobster] from Port Maitland, Nova Scotia, throughout the Gulf of Maine area". In fact, the figure illustrates the migration of only *30* of the more than *14,000* lobster that were recaptured [7]. The author of the original study noted in the caption to his figure a fact ignored by Canada: over a period of more than 35 years, with the exception of one site [8], only one lobster was recaptured at each of the distant recapture (197) sites. The original figure is reproduced here as Figure 6.

(91) 23. Figure 42 in Volume I of the Annexes to Canada's Counter- (90) Memorial is similar to Figure 41. It purports to show lobster tag returns, based upon "unpublished Canadian Department of Fisheries and Oceans data" that Canada has failed to provide to the Court or to the United (91) States. As such, it can only be assumed that Figure 42 has no more (90) support than does Figure 41.

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[1] Canadian Counter-Memorial, Annexes, Vol. I, para. 131(b); A. Campbell, *Movements of Tagged Lobsters Released off Port Maitland, Nova Scotia, 1944-80*, Canadian Tech. Rpt. of Fisheries and Aquatic Sciences, No. 1136, 1982, p. iii. Deposited with the Court by Canada in connection with its Counter-Memorial pursuant to Article 50 (2) of the Rules of Court.

[2] *Ibid.*, p. 4.

[3] *Ibid.*, p. iii.

[4] *Ibid.*

[5] *Ibid.*, p. 5, Fig. 6.

[6] *Ibid.*

[7] Campbell, *op. cit.*, p. 5, Fig. 6; p. 11, Table 4, listing the 30 recaptures; and p. iii, for total number recaptured.

[8] At that one site, two lobster were recaptured over the 35-year period.

24. In short, the tagging studies relied upon by Canada confirm that lobster are generally recaptured close to the areas in which they are released. Extensive migration is the exception, rather than the rule [1]. To the extent that lobster from Georges Bank canyons migrate, the movement is primarily to the shallower areas of the Bank during the spring and early summer, with a retreat to the deeper water of the canyons occurring in the late summer and fall [2].

25. Finally, in Volume I of the Annexes to its Counter-Memorial, Canada proffers a "hypothesis" that lobster within the Gulf of Maine area form a unit stock [3]. As support for this hypothesis, Canada cites an article that deals with lobster in the Canadian maritime region (off Nova Scotia, New Brunswick, and Prince Edward Island). That article concludes that the region is comprised of three general lobster stock areas: (1) the western maritimes, including the Bay of Fundy and off southwestern Nova Scotia; (2) off the eastern coast of Nova Scotia; and (3) the southern Gulf of St. Lawrence [4]. As the authors noted, this study did not address the lobster populations of the Gulf of Maine Basin or Georges Bank:

> "Although some of our analyses included Newfoundland, Quebec and Maine, the main discussion is centered around lobster populations off New Brunswick, Nova Scotia and P.E.I. [Prince Edward Island] [5]."

The paper, therefore, does not support Canada's hypothesis that lobster within the Gulf of Maine area form a unit stock [6].

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[1] As the United States discussed in Annex 1 to its Counter-Memorial [para. 75, and Table B, p. 97], tagging studies are a factor in the identification of separate fish and shellfish stocks. Nonetheless, the fact that individual members of a stock are found to have strayed from the area associated with the stock does not negate the separate existence of that stock.

[2] *See*, Hare, *op. cit.* p. 8; and United States Counter-Memorial, Annex 1, Vol. IA, para. 97.

[3] Canadian Counter-Memorial, Annexes, Vol. I, para. 131(b), n. 22.

[4] A. Campbell and R.K. Mohn, "The Quest for Lobster Stock Boundaries in the Canadian Maritimes", *NAFO SCR Doc. 82/IX/107, 1982, p. 1. Deposited with* the Court by Canada in connection with its Counter-Memorial pursuant to Article 50 (2) of the Rules of Court.

[5] *Ibid.*, p. 3.

[6] The other paper with which Canada attempts to support its hypothesis that there is only one lobster stock consists of a chain of hypotheses with no evidence of a unit lobster stock to support these hypotheses. Canadian Counter-Memorial, Annexes, Vol. I, para. 131(b), n. 22. G.C. Harding, K. F. Drinkwater, and W.P. Vass, "Factors Influencing the Size of American Lobster (*Homarus americanus*) Stocks Along the Atlantic Coast of Nova Scotia, Gulf of St. Lawrence, and Gulf of Maine: a New Synthesis", in *Canadian Journal of Fisheries and Aquatic Sciences*, Vol. 40, 1983, pp. 168-184. Deposited with the Court by Canada in connection with its Counter-Memorial pursuant to Article 50 (2) of the Rules of Court.

26. Canada's hypothesis is contradicted directly by the tagging studies discussed above and by those referred to in Annex 1 to the United States Counter-Memorial [1], as well as by other studies by Canadian authorities [2]. For instance, in a 1980 work, the Canadian scientist A.B Stasko reviewed the results of a 1975 study in which 4,304 lobster were tagged on the Scotian Shelf [3]. Stasko noted that most of the recaptured lobster had not moved far: 80 per cent of the lobster were recaptured less than 37 kilometers (20 nautical miles) from the release point [4]. Commenting upon the results of tagging conducted from 1972 through 1975 in the vicinity of northeastern Georges Bank and Browns Bank, in which 1,935 lobster were tagged, the author mentioned only one occurrence in which a lobster moved between Browns Bank and Georges Bank [5].

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[1] United States Counter-Memorial, Annex 1, Vol. IA, para. 97. For example, in a study [deposited by the United States with its Counter-Memorial] in which 7,326 lobster were tagged on Georges Bank and the continental shelf to the southwest (from Corsair Canyon on Georges Bank to Hudson Canyon off Long Island) and 945 were recaptured, none of the tagged lobster was recaptured northeast of the Northeast Channel or in the Gulf of Maine Basin. J.R. Uzmann, R.A. Cooper, and K.J. Pecci, "Migration and Dispersion of Tagged American Lobsters, *Homarus americanus*, on the Southern New England Continental Shelf", National Oceanic and Atmospheric Administration, Tech. Rpt., National Marine Fisheries Service, SSRF-705, 1977, pp. 1 and 7, Fig. 3.

[2] Stasko and Pye, commenting in a 1980 work upon a lobster tagging study conducted in 1975, noted that, of 363 lobster recaptured out of the 4,260 lobster tagged on the Scotian Shelf, only six lobster, or 1.7 per cent of the total recaptured, moved from the Scotian Shelf to Georges Bank. Stasko and Pye, *Geographical Size Differences in Canadian Offshore Lobsters, op. cit.*, p. 4.

[3] A.B. Stasko, "Tagging and Lobster Movements in Canada", Canadian Tech. Rpt. of Fisheries and Aquatic Sciences, No. 932, 1980, p. 147.

[4] *Ibid.*

[5] *Ibid.*

Annex 22

A CRITIQUE OF THE ANALYSIS IN THE CANADIAN COUNTER-MEMORIAL OF THE 12 SPECIES THAT CANADA PROPOSES TO ADD TO THE 16 SPECIES IDENTIFIED BY THE UNITED STATES AS COMMERCIALLY IMPORTANT

INTRODUCTION

1. In its Counter-Memorial and Volume I of the Annexes thereto, Canada suggests that an additional 12 species should be included in the list, compiled by the United States, of the 16 fish species that are commercially important in the Gulf of Maine area [1]. Canada's suggestion is unfounded in view of the established patterns of fishing in the Gulf of Maine area.

2. As the United States indicated in its Memorial and Counter-Memorial, although over 200 species of fish are found in the Gulf of Maine area, most of these species are of little or no commercial importance [2]. In contrast to many parts of the world where "pelagic" species (those, such as tuna, that live in open waters) are the primary focus of commercial fishing, most of the fishing in the Gulf of Maine area is for bottom-dwelling species—the "groundfish", or "demersal" fish. Of the 16 fish and invertebrate species of major commercial importance in the area, 10 [3] are groundfish, four are invertebrates (including scallops and lobster, which are bottom-dwelling), and only two of the fish species (herring and mackerel) are pelagic. Because of their commercial importance, considerable fisheries research [4] has been conducted into all 16 species, and certain of them are the object of directed fisheries [5]. The commercial importance of these 16 species traditionally has been recognized by the Parties in the International Commission for the Northwest Atlantic Fisheries (ICNAF) and in their respective domestic management systems [6].

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[1] Canadian Counter-Memorial, para. 212; and Annexes, Vol. I, para. 121, and n. 12.

[2] United States Memorial, para. 52; and United States Counter-Memorial, Annex 1, Vol. IA, para. 52.

[3] These are: Atlantic cod, haddock, silver hake, red hake, white hake, redfish, yellowtail flounder, pollock, argentine, and cusk.

[4] United States Counter-Memorial, Annex 1, Vol. IA, paras. 76-99.

[5] A directed fishery is a fishery designed specifically to catch a particular species.

[6] United States Counter-Memorial, Annex 1, Vol. IA, para. 75, and Appendices A-H; for a general discussion of United States initiatives within ICNAF designed to impose stricter regulatory controls upon these species, *see* United States Counter-Memorial, Annex 3, Vol. II, paras. 23-62.

3. The distributions of stocks of four of the 16 species—mackerel, pollock, argentine, and shortfin (*Illex*) squid—are such that these species will be "transboundary" stocks irrespective of the delimitation of the Gulf of Maine area, and thus will require joint management in any event. The remaining 12, or fully three-quarters of these commercially important species, are divided naturally at the Northeast Channel and therefore could best be managed if the delimitation were to respect that natural boundary [1]. By contrast, should the boundary to be delimited cut across Georges Bank and thereby through stocks of these species, these 12 would become transboundary stocks and, as with the other four necessarily transboundary stocks mentioned above, would require joint management. As previously discussed by the United States, joint conservation and management of a stock is inherently difficult [2]. This difficulty is compounded as the number of stocks that require joint management increases [3].

4. Although Canada does not dispute the commercial importance of the 16 species identified by the United States, it would include with those 16 species 12 additional species. Canada asserts that nine of these 12 are also commercially important, and that three are of recreational importance [4]. The additional 12 species that Canada regards as "important" in fact are generally of minor commercial importance in the Gulf of Maine area, especially to Canada [5]. Because of their lack of commercial importance, there is little or no need for measures to conserve or manage these species. Furthermore, seven of these species only migrate through the area, without being harvested, and thus management of these seven will not be affected

[1] United States Counter-Memorial, Annex 1, Vol. IA, paras. 76-99.

[2] United States Counter-Memorial, paras. 349-368.

[3] United States Counter-Memorial, para. 368.

[4] Canadian Counter-Memorial, Annexes, Vol. I, para. 121, n. 12. In a number of instances, Canada indiscriminately combines its three "recreational" species with its nine additional "commercially important" species, referring to all 12 as "commercially important". *See, e.g.*, Canadian Counter-Memorial, Annexes, Vol. I, para. 121.

[5] Based upon catch statistics compiled by the Northwest Atlantic Fisheries Organization (NAFO), in 1982, 301,920 metric tons (m.t.) of the 16 species recognized by the Parties as commercially important in the Gulf of Maine area were caught by *all States on Georges Bank and in the Gulf of Maine Basin.* [NAFO Secretariat, *Provisional Nominal Catches in the Northwest Atlantic, 1982*, NAFO SCS Doc. 83/IX/22, (hereinafter NAFO, *Provisional Nominal Catches)*, 1983, pp. 12-45. Throughout this Annex, Subareas 5Ze and 5Y are used to estimate Georges Bank and Gulf of Maine Basin landings.] This is an average of 18,870 m.t. per species. By contrast, in 1982, only 43,385 m.t. of the additional species proposed by *Canada were caught by all States on Georges Bank and in the* Gulf of Maine Basin. [NAFO, *Provisional Nominal Catches*, pp. 16-37.] This is an average of only 3,615 m.t. per species. Furthermore, most of the combined catch of the 12 additional species consisted of three species that divide naturally at the Northeast Channel. These species were American plaice (15,180 m.t.), winter flounder (10,265 m.t.), and witch flounder (5,008 m.t.). [*Ibid.*, pp.16, 17, and 19.] Thus, *these three species accounted for 30,453 m.t., or 70 per cent of the* combined catch of the 12 additional species proposed by Canada.

by this delimitation. The remaining five species divide naturally at the Northeast Channel. Concentrations of these five species would be transected by a delimitation that cut across Georges Bank [1]. Should the need arise to conserve and manage these species, they would be benefitted by a delimitation that generally respects the Channel.

SECTION 1. The Migratory Species upon Which Canada Has Focused Migrate Through the Gulf of Maine Area and Are Not Caught There in Significant Numbers

A. Bluefin Tuna

5. Bluefin tuna are highly migratory and range from off Newfoundland to the Gulf of Mexico [2]. Bluefin tuna do not spawn in the Gulf of Maine area and are not fished, except incidentally, in the area to be delimited [3]. Bluefin tuna are regulated under the International Convention for the Conservation of Atlantic Tunas, to which both Canada and the United States are Parties [4].

B. Atlantic Salmon

6. Atlantic salmon are highly migratory and range to the north well beyond the Gulf of Maine area, indeed, as far as Greenland. They are anadromous species that spawn in rivers. Atlantic salmon normally are not found on Georges Bank or in the Gulf of Maine Basin [5]. They are regulated under the new North Atlantic Salmon Convention, to which both Canada and the United States are Parties [6].

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[1] It is noteworthy that several other species that, by Canada's standards, should be listed as commercially important in the area in fact are excluded by Canada. These species are the summer flounder, windowpane flounder, ocean pout, tilefish, skates (winter and little), and bluefish. Each of these species exhibits a distinct distributional break at the Northeast Channel. *See, e.g.*, United States (the Northeast Fisheries Center of the National Oceanic and Atmospheric Administration) groundfish trawl-survey data, provided on a regular basis to Canadian fishery authorities over the years. Canada included some of these data in the Annexes to its Memorial. Canadian Memorial, Annexes, Vol. IV, Annex 2.

[2] Canada devotes an entire figure to this point in the Annexes to its Counter-Memorial. Canadian Counter-Memorial, Annexes, Vol. I, Fig. 36.

[3] For example, in 1982, Canada landed no bluefin tuna from Georges Bank or the Gulf of Maine Basin, and the United States landed 2,935 m.t. from those areas. NAFO, *Provisional Nominal Catches*, p. 29.

[4] 673 U.N.T.S. 63. The other Parties to the Convention are: Angola, Benin, Brazil, Cape Verde, Cuba, France, Gabon, Ghana, Ivory Coast, Japan, Korea, Morocco, Portugal, Senegal, South Africa, Spain, and the Union of Soviet Socialist Republics.

[5] For example, in 1982, neither Canada nor the United States landed Atlantic salmon from Georges Bank or from the Gulf of Maine Basin. NAFO, *Provisional Nominal Catches*, p. 32.

[6] Convention for the Conservation of Salmon in the North Atlantic Ocean, Mar. 1982, Art. 2. [Ratified by Canada, the European Economic Community, Iceland, Norway, and the United States.]

C. Swordfish

7. Swordfish are highly migratory and range from off Newfoundland to the Gulf of Mexico [1]. Swordfish do not spawn in the Gulf of Maine area. Although there is a swordfish fishery within the area to be delimited, it is an extremely limited one [2].

D. Spiny Dogfish

8. Spiny dogfish are migratory and range from southern Labrador to off Florida. They bear their young primarily in the middle Atlantic waters and only occasionally in the Gulf of Maine area [3]. They are not fished, except incidentally, in the area to be delimited [4].

E. Alewife

9. Alewife range from Newfoundland and the southern Gulf of St. Lawrence to North Carolina. They spawn in rivers and, like other anadromous species, their unit-stocks should be defined by their river of origin, since the most intensive fishing occurs there. Alewife are not fished for in the area to be delimited in this case, albeit alewife occasionally may be caught [5].

F. American Shad

10. American shad range from the Gulf of St. Lawrence to Florida [6]. They spawn in rivers and, as is the case with salmon and alewives, unit-stocks of shad should be defined by their river of origin. American shad are not fished in the area to be delimited [7].

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[1] Canada devotes an entire figure to demonstrating this point. Canadian Counter-Memorial, Annexes, Vol. I, Fig. 35.

[2] For example, in 1982, Canada landed one metric ton of swordfish from Georges Bank and none from the Gulf of Maine Basin; this represented only 0.1 per cent of Canada's total landings of swordfish in the Northwest Atlantic Ocean. The United States landed 702 m.t. of swordfish from those areas. NAFO, *Provisional Nominal Catches*, p. 28.

[3] Spiny dogfish do not spawn (lay eggs); their young are born as fully formed young fish.

[4] For example, in 1982, Canada landed no spiny dogfish from Georges Bank or the Gulf of Maine Basin, and the United States landed 2,994 m.t. from those areas. NAFO, *Provisional Nominal Catches*, p. 37.

[5] For example, in 1982, Canada landed no alewife from Georges Bank or the Gulf of Maine Basin, and the United States landed 4,183 m.t. from those areas. NAFO, *Provisional Nominal Catches*, p. 30.

[6] Canada devotes two figures in Volume I of the Annexes to its Counter-Memorial to demonstrations of the migratory nature of shad. Canadian Counter-Memorial, Annexes, Vol. I, Figs. 37 and 38.

[7] For example, in 1982, Canada landed no American shad from Georges Bank or the Gulf of Maine Basin, and the United States landed only 25 m.t. from those areas. NAFO, *Provisional Nominal Catches*, p. 31.

G. Saury

11. Saury is an oceanic, pelagic species that for most of its life is found in the surface waters of the open sea beyond the continental shelf between Cape Hatteras and Newfoundland. Saury are found on the continental shelf from the late spring to the early autumn when the waters above the shelf are relatively warm. Saury do not spawn in the Gulf of Maine area. They are not generally fished on Georges Bank or in the Gulf of Maine Basin [1].

SECTION 2. The Additional Five Species upon Which Canada Has Focused Are Naturally Divided at the Northeast Channel

A. Winter Flounder

12. In its Counter-Memorial, Canada acknowledged that the Northeast Channel divides separate stocks of winter flounder [2]. As the United States discussed in Annex 1 to its Counter-Memorial, the winter flounder is a member of the yellowtail-ocean pout association [3]. This group is relatively abundant on Georges Bank and southwest to southern New England and beyond; separate stocks are found on certain of the banks of the Scotian Shelf. This species, harvested as a by-catch, is of minor commercial importance in the area [4].

B. American Plaice

13. As the United States noted in Annex 1 to its Counter-Memorial, the American plaice is a member of the same group of species as herring, cod, and haddock. Each of these species has stocks on Georges Bank that are separated by the Northeast Channel from stocks of the same species on the Scotian Shelf. Figure 26 in Annex 1 to the United States Counter-Memorial, which is based upon groundfish trawl-survey data, illustrates the break in the distribution of American plaice that occurs at the Northeast Channel. Canada's own Figure 48, in Volume I of the Annexes to its Counter-Memorial, which shows the biomass distribution of American plaice, also confirms this break in distribution occurring at the

[1] For example, in 1982, neither Canada nor the United States landed saury from Georges Bank or from the Gulf of Maine Basin. NAFO, *Provisional Nominal Catches*, p. 30. Saury is listed under "Pelagic Fish (NS) [Non-Specified]."

[2] "For the remaining two species (*yellowtail flounder* and *winter flounder*), stocks are in fact divided by the Northeast Channel." Canadian Counter-Memorial, para. 212(g). [Emphasis in original.]

[3] *United States Counter-Memorial, Annex 1, Vol. IA, paras. 53 and 54, and Fig. 23.*

[4] For example, in 1982, Canada landed only 19 m.t. of winter flounder from Georges Bank and none from the Gulf of Maine Basin, and the United States landed 10,246 m.t. from those areas. NAFO, *Provisional Nominal Catches*, p. 19.

Northeast Channel. This species, harvested as a by-catch, is of minor commercial importance in the area [1].

C. Butterfish

14. In Volume I of the Annexes to its Counter-Memorial, Canada acknowledges that butterfish have a distribution similar to that of longfin squid, and that the Northeast Channel represents the northeastern limit of that distribution [2]. Annex 1 to the United States Counter-Memorial presents data that confirms that the Northeast Channel is a barrier to this species [3]. This species is not fished, except incidentally, in the area to be delimited [4].

D. Goosefish (Angler)

15. Goosefish move very little, and only seasonally, on Georges Bank, in the Gulf of Maine Basin, and on the Scotian Shelf. This pattern suggests that there may be separate local stocks of goosefish in these areas. Groundfish trawl-survey data show a pronounced break in the distribution of goosefish occurring at the Northeast Channel. This species is of minor commercial importance in the area and is not the object of a directed fishery [5].

E. Witch Flounder

16. Groundfish trawl-survey data show a distinct break in the distribution of witch flounder that occurs at the Northeast Channel. Canada's own Figure 49, in Volume I of the Annexes to its Counter-Memorial, which shows the biomass distribution of witch flounder, confirms this division at the Northeast Channel. ICNAF recognized a separation between the witch flounder of Subareas 4 and 5, which are divided by a line that runs through the Northeast Channel. The Canadian scientist D.J. Scarratt has described a break in the fishing areas for this species at

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[1] For example, in 1982, Canada landed only 27 m.t. of American plaice from Georges Bank and none from the Gulf of Maine Basin, and the United States landed 15,153 m.t. from those areas. NAFO, *Provisional Nominal Catches*, p. 16.

[2] *Canadian Counter-Memorial*, Annexes, Vol. I, para. 132. *See also* Canadian Memorial, para. 100, wherein Canada acknowledges that the Northeast Channel is the northern limit of distribution for the longfin squid.

[3] United States Counter-Memorial, Annex 1, Vol. IA, para. 59, and Fig. 27.

[4] For example, in 1982, Canada landed no butterfish from Georges Bank or from the Gulf of Maine Basin, and the United States landed only 459 m.t. from those areas. NAFO, *Provisional Nominal Catches*, p. 27.

[5] For example, in 1982, Canada landed only one metric ton of goosefish from Georges Bank and none from the Gulf of Maine Basin, and the United States landed only 1,620 m.t. from those areas. NAFO, *Provisional Nominal Catches*, p. 20.

the Northeast Channel [1]. Although no stock studies on the witch flounder in the Gulf of Maine area have been conducted, studies conducted on populations of witch flounder located farther to the north have revealed the existence of separate stocks [2]. This species, harvested as a by-catch, is of minor commercial importance in the area [3].

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[1] D.J. Scarratt, ed., *Canadian Atlantic Offshore Fishery Atlas*, Canadian Special Publication of Fisheries and Aquatic Sciences 47 (Rev.), 1982, p. 70. He also notes that the Canadian witch flounder fishery is most important in the waters to the northeast, in NAFO Subareas 2 and 3. *Ibid.*, p. 71.

[2] Stock differentiation studies for Newfoundland and Gulf of St. Lawrence witch flounder reveal several discrete stocks in these areas, some with little spatial separation. In fact, two separate stocks are found along the Esquimann Channel of the Gulf of St. Lawrence. W.R. Bowering and R.K. Misra, "Comparisions of Witch Flounder (*Glyptocephalus cynoglossus*) Stocks of the Newfoundland-Labrador Area, Based upon a New Multivariate Analysis Method for Meristic Characters", in *Canadian Journal of Fisheries and Aquatic Sciences*, Vol. 39, 1982, pp. 564-570; and D.J. Fairbairn, "Which Witch is Which? A Study of the Stock Structure of Witch Flounder (*Glyptocephalus cynoglossus*) in the Newfoundland Region", in *Canadian Journal of Fisheries and Aquatic Sciences*, Vol. 38, 1981, pp. 782-794.

[3] For example, in 1982, Canada landed only five metric tons of witch flounder from Georges Bank and four from the Gulf of Maine Basin, and the United States landed 4,999 m.t. from those areas. NAFO, *Provisional Nominal Catches*, p. 17.

Annex 23

A CRITIQUE OF THE ANALYSIS IN THE CANADIAN COUNTER-MEMORIAL OF THE DISTRIBUTION OF FISH SPECIES IN THE GULF OF MAINE AREA

INTRODUCTION

1. The United States has demonstrated that fish species are not distributed evenly throughout the Gulf of Maine area [1]. Each species has environmental preferences, such as those for a certain temperature and depth, that dictate the pattern of distribution for that species. The three ecological regimes of the area—associated respectively with Georges Bank, the Gulf of Maine Basin, and the Scotian Shelf—have different environmental characteristics, and the fish species are distributed in accordance with their responses to those characteristics [1]. For example, some species congregate on Georges Bank and on the banks of the Scotian Shelf (e.g., Browns Bank), whereas others congregate in the deeper waters of the Gulf of Maine Basin. Distribution charts of a particular species, or of a number of species with similar environmental needs, calibrated to differentiate between abundance and chance occurrence of the species, confirm the existence in the Gulf of Maine area of three separate and identifiable ecological regimes [2]. Such charts also confirm that there is a division, located at the Northeast Channel, between the ecological regime of the Scotian Shelf and that of Georges Bank.

2. In contrast to the United States presentation of species data, the Canadian Counter-Memorial presents species distribution charts that imply that fish species in general are distributed evenly throughout the Gulf of Maine area [3]. These charts also imply that, to the extent that there is a species boundary in the area between Long Island (off New York) and Cape Canso (at the northeastern end of Nova Scotia), it occurs at the Great South Channel [4]. Because of fundamental flaws in Canada's methodology, these charts depict inaccurately the distribution of species in the Gulf of Maine area. The data in the charts are assembled in such a manner that it is impossible to discern the distribution patterns of individual species or the areas in which a species abounds and those in

[1] United States Counter-Memorial, Annex 1, Vol. IA, paras. 52-64.

[2] *See* Figs. 23 through 27, United States Counter-Memorial, Annex 1, Vol. IA.

(62)(64) [3] Canadian Counter-Memorial, Figs. 20 and 22.

(62)(63) [4] Canadian Counter-Memorial, Figs. 20 and 21.

which it is found only rarely. First, a grid pattern is superimposed over the marine areas in the charts, with some of the squares colored to indicate the occurrence of one or more species. This methodology conveys the impression that each colored square reflects the even and relatively abundant distribution of one or more species. In fact, under Canada's methodology, a square could be colored if only a single representative from one of eight species—i.e., one fish—has been recorded in the large area covered by one square: between 295 and 300 square nautical miles. Second, the species illustrated in the three charts are combined in such a manner that the natural divisions in the distributions of the species are concealed. The distributions of fish species with dissimilar preferences (e.g., deep water and shallow water) are combined. Consequently, areas are colored completely, with no indication where the distribution of one of the species ends and the other begins.

(62)-(64) **SECTION 1. Canadian Figures 20, 21, and 22 Ignore the Density of the Species Distributions They Purport to Illustrate**

(62)-(64) 3. Figures 20, 21, and 22 of the Canadian Counter-Memorial purport to show species distributions. In all three figures, the marine areas are divided into squares of between 295 and 300 square nautical miles. By contrast, the groundfish trawl-survey data that the United States assumes were the basis *for these figures* [1] *are reported for areas that average* 0.004 *square nautical* miles. These data are frequently aggregated, including by Canada [2], for areas that are between 74 and 75 square nautical miles—viz., areas that are (62)-(64) one-quarter the size of the squares in Figures 20 through 22 of the Canadian Counter-Memorial. By using larger squares in its Counter-Memorial, Canada is able to depict species distributions over expansive areas upon the basis of but a single occurrence of an individual fish.

4. In Canadian Figures 20 through 22, squares that are colored in a light shade reflect that representatives from one to three species have been recorded within that square; those in a medium shade reflect that representatives from four to five species have been recorded within that square; and, squares of a dark shade indicate that representatives from six to eight species have been recorded within that square. Accordingly, a darkly shaded area may indicate nothing more than that six fish—one from each of six species—have been found in an area of between 295 and 300 square nautical miles. A lightly shaded area may indicate nothing more than that one individual fish has been found in an area of between 295 and 300 square nautical miles. Two squares alongside each other and

[1] The United States (the Northeast Fisheries Center of the National Oceanic and Atmospheric Administration) has provided its groundfish trawl-survey data on a regular basis to Canadian fishery authorities over the years. Canada included some of these data in the Annexes to its Memorial. Canadian Memorial, Annexes, Vol. IV, Annex 2.

[2] Canadian Memorial, Annexes, Vol. IV, Annex 2.

of the same shade may not have contained the same combination of (62)(63) species. Furthermore, the apparent boundary, in Figures 20 and 21, at the Great South Channel, reflects nothing more than that at least one additional species (four instead of three) occurs on one or the other side of the Great South Channel. In other words, as a result of the methodology adopted by Canada, as few as four or five individual fish—one for each of the squares spanning the continental shelf in the vicinity of the Great South Channel—would be sufficient to produce on the figure the appearance of a species boundary at that point.

(62)-(64) SECTION 2. Canadian Figures 20, 21, and 22 Combine Distribution Data for Dissimilar Species, Thereby Obscuring the Differences in the Distribution of Fish Species

(62) A. CANADIAN FIGURE 20

(62) 5. In Figure 20, Canada combines a number of species, the distributions of which are determined by different environmental preferences. The figure, which purports to illustrate the distribution of "northern" species, combines the following: three species (redfish, argentine, and cusk) that concentrate in the Gulf of Maine Basin and the basins of the Scotian Shelf, but that avoid Georges Bank [1]; four species (American plaice, cod, haddock, and pollock) that migrate seasonally on and off Georges Bank and the Scotian Shelf [2]; and, one species (white hake) that also migrates seasonally, but in a pattern opposite from that of the other four species [3]. (62) Figure 20 therefore combines species that concentrate in the Gulf of Maine Basin with species that concentrate on Georges Bank and the Scotian Shelf during part of the year. In this manner, the Canadian presentation obscures the differences among the three ecological regimes of the area reflected in the distribution of each of these species.

6. Canada also fails in Figure 20 to distinguish between warm-season and cold-season distributions. As noted above, five of the eight species portrayed in Figure 20 migrate seasonally. Seasonal distributional plots for these species would reflect the difference between the Gulf of Maine

[1] These species avoid Georges Bank because they prefer deeper cooler waters of relatively constant temperature. For further distributional information on these (130)(133) and similar species, *see* United States Counter-Memorial, Annex 1, Vol. IA, para. 56, and Figs. 25, 40, 45, and 49.

[2] These species migrate seasonally in search of relatively cold water, avoiding the shallower bank waters in the warm season. For further distributional information on these and similar species, *see* United States Counter-Memorial, Annex 1, Vol. (124)(127) IA, paras. 57 and 58, and Figs. 26, 32, 37, and 48.

[3] Thus, this species avoids Georges Bank in the colder season. For further distributional information on this and similar species, *see* United States Counter-(129) Memorial, Annex 1, Vol. IA, para. 55, and Figs. 24 and 39.

Basin and the shallower waters of Georges Bank and of the Scotian Shelf. In showing annual, rather than seasonal, distributions for those species that migrate seasonally, Canada further blurs the ecological subdivisions of the area.

(63) B. CANADIAN FIGURE 21

(63) 7. Figure 21 purports to show that the distribution of "southern" species ends midway along Georges Bank for at least one species, and at the Great South Channel for at least four species. This impression results in part from the failure of Figure 21 to reflect that three of these species (bluefish, summer flounder, and butterfish) are found on Georges Bank all the way to the northeastern tip of the Bank[1]. Moreover, Canada has omitted altogether from this figure four other southern species that normally are grouped with these three species and that also are distributed along Georges Bank to its northeastern tip, viz., the longfin squid, the northern sea robin, the fourspot flounder, and the spotted hake. Had Canada portrayed accurately the data relating to these "southern" species, the northeastern limit of these species would not be depicted at the Great South Channel, nor midway along Georges Bank. The actual distributional pattern of this group of species, including their occurrence throughout Georges Bank, is shown in Figure 27 of Annex 1 to the United States Counter-Memorial.

8. Canada also has omitted from its depiction of "southern" species another group of species that are essentially southern in orientation, but that are found in the Gulf of Maine area. This group includes ocean pout, longhorned sculpin, winter flounder, windowpane flounder, little skate, winter skate, sea raven, cunner, and yellowtail flounder[2]. As was noted previously in Annex 1 to the United States Counter-Memorial, these species are relatively abundant and evenly distributed on Georges Bank and southwest to southern New England and beyond, but they occur less frequently, and in more restricted localities, on the Scotian Shelf[3]. Once again, had Canada included distributional patterns for these species in (63) Figure 21, the northeastern limits of the "southern" species that are found in the Gulf of Maine area would not have appeared, as they do in Figure 21, in the vicinity of the Great South Channel or midway along Georges Bank.

[1] The Northeast Fisheries Center groundfish trawl-survey data (*see* para. 3, n. 1, *supra*) establishes that these three species are found on the northeastern part of Georges Bank.

[2] Canada labels the yellowtail flounder as a "wide-ranging" species and includes it (64) in Figure 22, discussed *infra*.

[3] United States Counter-Memorial, Annex 1, Vol. IA, paras. 53 and 54, and Fig. 23.

(63) 9. The five other species that were included in Canada's Figure 21 are southern species that migrate from the Gulf of Maine and the southern New England region during the colder months of the year, to the extent that they may have reached that far to the north in the summer (e.g., menhaden and weakfish). Except for the bay scallop, which remains virtually fixed to the seabed, these other species retreat far southward in the winter. Furthermore, as is reflected in Figure 21 by the dark red band along the southern New England coast, the bay scallop, weakfish, and menhaden are nearshore coastal species that only rarely are found more than several miles from shore (the bay scallop is an estuarine species)[1].

10. In summary, Canada's depiction of "southern species" in its Figure (63) 21 omits at least 13 species that have a southern orientation, whereas it includes five species that, albeit of southern orientation, rarely enter the Gulf of Maine area.

(64) C. CANADIAN FIGURE 22

(64) 11. Figure 22 of Canada's Counter-Memorial, which purports to depict the distribution of "wide-ranging" species, obscures the ecological divisions within the Gulf of Maine area by combining an extraordinary assortment of species that have very different environmental preferences. Although two of these species in fact are "wide-ranging", the others cluster to varying degrees on the Scotian Shelf, Georges Bank, the southern New England Shelf, or in the Gulf of Maine Basin, depending upon their environmental preferences. As a result of this haphazard combination of species, virtually the entire Gulf of Maine area is shaded with dark green squares in Figure 22.

(64) 12. Figure 22 shows the distribution of two species—mackerel and *Illex* (shortfin) squid—that indeed are distributed throughout the area at some point during the year[2]. The figure also purports to reflect, however, distributional information for sea scallops, which live in beds and scarcely move. No reasonable comparison may be drawn between mackerel and *Illex* squid, which are wide-ranging species, and scallops, which are virtually sedentary. Figure 22 also implies that sea scallops are found in the center of the Gulf of Maine Basin and in the Northeast Channel, when in fact there are no scallop beds in those areas[3]. A comparison of

[1] Canada does not provide a comparable figure showing northern species that are found on the Scotian Shelf, but that rarely are present in the Gulf of Maine Basin or on Georges Bank, such as the Greenland halibut and the capelin. *See* United States Counter-Memorial, Annex 1, Vol. IA, para. 61.

[2] *See* United States Counter-Memorial, Annex 1, Vol. IA, paras. 62 and 63.

(131) [3] *See* United States Counter-Memorial, Annex 1, Vol. IA, Fig. 43.

(131) Figure 43 with Figure 50 of Annex 1 to the United States Counter-Memorial demonstrates that it is irrational to combine in the same figure distributional plots for migratory and local species.

13. Canada also has included lobster data in the compilation of Figure (64) 22. Although lobster are found throughout the area, it is misleading to characterize them as wide-ranging in the same sense as mackerel or *Illex*. A number of articles cited by Canada relating to lobster indicate that, although a very few individual lobsters occasionally travel great distances, 80 to 95 per cent of all lobster move only within a relatively small area [1].

14. Together with these two wide-ranging species and two relatively (64) stationary ones, Canada has included in Figure 22 distributional data for the yellowtail flounder. Figure 42 of Annex 1 to the United States Counter-Memorial shows that this species: (1) concentrates on Georges Bank and the southern New England Shelf; (2) does not concentrate in the center of the Gulf of Maine Basin; and, (3) clusters on the Scotian Shelf in those areas where conditions are suitable.

(64) 15. Canada next has added to Figure 22 distributions for red hake and silver hake, two species that are members of a group of species that prefer relatively warm water, migrating seasonally in response to temperature (128)(129) changes. As can be seen in Figures 38 and 39 of Annex 1 to the United States Counter-Memorial, these species are not distributed evenly throughout the Gulf of Maine area. Rather, they are abundant on the seaward edge of Georges Bank and on the southern New England shelf, but are found in less abundance and are distributed unevenly in the Gulf of Maine Basin and on the Scotian Shelf.

(64) 16. Finally, Canada adds to Figure 22 distributional information for herring, which is essentially a northern species that prefers colder water and that moves seasonally in response to temperature changes. As can be (126) seen in Figure 35 of Annex 1 to the United States Counter-Memorial, herring cluster along the Atlantic coast of Nova Scotia, around the edge of the Gulf of Maine Basin, and on Georges Bank, with a seasonal movement southwestward along the southern New England shelf. Herring are normally grouped with cod, haddock, pollock, and American plaice, all of which have similar environmental preferences [2]. There is no (62) apparent reason to include the latter four species in Figure 20, which depicts the distribution of "northern species", but to include herring in (64) Figure 22 as a "wide-ranging species".

[1] *See* Annex 21, paras. 21 and 22, discussing A. Campbell's study on lobster tagging, *Movements of Tagged Lobsters Released off Port Maitland, Nova Scotia, 1944-80,* Canadian Tech. Rpt. of Fisheries and Aquatic Sciences, No. 1136, 1982. Only 4.1 per cent of the recaptured lobster ranged more than 18.5 km from the area in which they were tagged.

[2] *See* United States Counter-Memorial, Annex 1, Vol. IA, Fig. 26.

(64) 17. As a result of the grouping of dissimilar species, the distribution patterns depicted in Figure 22 cover virtually the entire Gulf of Maine area, as reflected in the near continuous shading of dark green squares. By contrast, individual distributional plots of the species portrayed in Figure 22 confirm the ecological divisions of the area.

CONCLUSION

(62)-(64) 18. In summary, Figures 20, 21, and 22 in the Canadian Counter-Memorial contribute virtually nothing to an understanding of species distributions in the Gulf of Maine area. By contrast, standard distribution charts for the species portrayed in the Canadian figures confirm the differences among the three ecological regimes of the Gulf of Maine area, and demonstrate that there is a natural ecological division between the regime of the Scotian Shelf and that of Georges Bank located at the Northeast Channel.

19. Furthermore, it must be noted that, regardless of whether a species is distributed throughout the Gulf of Maine area, there are subpopulations within many species that are best managed and conserved separately. The United States has demonstrated that stocks of 12 of the 16 commercially important species found in the Gulf of Maine area are separated by the Northeast Channel[1]. Standard distribution charts for the species in the Gulf of Maine area confirm that separation, whereas Canadian Figures (62)-(64) 20, 21, and 22 obscure it.

(23)(42) [1] United States Memorial, paras. 55 and 57, and Figs. 7 and 36; and United States (124)(126)-(133) Counter-Memorial, Annex 1, Vol. IA, paras. 76-98, and Figs. 32, 35, 37, 38, 39, 40, 42, 43, 44, and 45. A stock of one of these 12, longfin squid, is found on Georges Bank, but not on the Scotian Shelf. [United States Memorial, para. 55, n.1; and United States Counter-Memorial, Annex 1, Vol. IA, para. 99, and Fig. (134)(62)-(64) 46.] Canadian Figs. 20 through 22 purport to show the species distributions of the other 11 species that have a stock separation at the Northeast Channel, but not the distribution of the longfin squid.

Annex 24

A CRITIQUE OF THE ANALYSIS IN THE CANADIAN COUNTER-MEMORIAL OF THE DISTRIBUTION OF BENTHOS IN THE GULF OF MAINE AREA

INTRODUCTION

1. The presentation of benthic distribution data in the Canadian Counter-Memorial and in Volume I of its Annexes thereto implies that there are no ecological divisions in the Gulf of Maine area northeast of the Great South Channel[1]. A straightforward scientific presentation of benthic data confirms that in fact there are three separate and identifiable ecological regimes in the Gulf of Maine area, and that there is a division at the Northeast Channel between the ecological regime of the Scotian Shelf and that of Georges Bank.

SECTION 1. Canada Relies upon Inappropriate Sources and Methodologies in Depicting the Distribution of Benthos

2. Canada's presentation of benthic distribution data implies inaccurately that benthos are distributed evenly throughout the Gulf of Maine area, and that those species that reach their limits of distribution in the area do so at the Great South Channel. This inaccurate implication arises (83)-(88) from three fundamental flaws that are reflected in Figures 25 through 30 of Volume I of the Annexes to the Canadian Counter-Memorial.

3. First, Canada has developed these figures from works that contain nothing more than verbal descriptions of general geographic areas in which benthic species are found[2]. In so doing, Canada ignores

[1] Benthos are bottom-dwelling organisms that are an important element in the food chain of the marine environment.

[2] Canada cites K.L. Gosner, *Guide to Identification of Marine and Estuarine Invertebrates, Cape Hatteras to the Bay of Fundy*, 1971, as the source of its (83)-(88) distributional depictions in Figs. 25 through 30. This work does not plot distributional information on charts. The expressed goal of the work [p. 24] is to assist the reader to identify various species of benthos. The northern limit of the area that is the subject of the work is the Bay of Fundy, and each species is given a letter identification to indicate, in a general fashion, where the species is found. For example, the letter "B" indicates that a species is found between the Bay of Fundy and Cape Cod. [p. 25.] Thus, a species that was found generally in the Gulf of Maine Basin, but not elsewhere on the continental shelf, would have the same distributional classification as a species that was abundant on Georges Bank and

(footnote continued on next page)

specific distributional plots for these benthic organisms that are contained in standard scientific works [1].

(83)-(88) 4. Second, in Figures 25 through 30 of Volume I of the Annexes to its Counter-Memorial, Canada uses bars to depict its benthic distribution data, rather than charts, which are the traditional scientific method for illustrating species distributions [2]. The use of these bars makes it impossible to determine whether a species is found in the Gulf of Maine Basin regime, or whether it is found in the Georges Bank regime and the southwestern tip of the Scotian Shelf regime (including Browns Bank and German Bank); nor do the bars reflect the relative density of distribution of the species in any particular region [3].

(footnote continued from the previous page

Browns Bank, but not in the Gulf of Maine Basin or in the Northeast Channel. Canada has converted these simple letter identifications into the bars shown in (83)-(88) Figs. 25 through 30 of Vol. I of the Annexes to its Counter-Memorial. The other work cited by Canada as a source for its benthic figures is R.L. Wigley, "Benthic Invertebrates of the New England Fishing Banks", in *Underwater Naturalist,* Vol. 5, No. 1, 1968, pp. 8-13. This article simply provides lists of benthic organisms found in the Gulf of Maine area. It does not include any distributional plots of these organisms.

[1] *See, e.g.,* R.B. Theroux and R.L. Wigley, *Distribution and Abundance of East Coast Bivalve Mollusks Based on Specimens in the National Marine Fisheries Service Woods Hole Collection,* National Oceanic and Atmospheric Administration (N.O.A.A.) Technical Report National Marine Fisheries Service (N.M.F.S.) SSRF-786, 1983; and A.B. Williams and R.L. Wigley, *Distribution of Decapod Crustacea Off Northeastern United States Based on Specimens at the Northeast Fisheries Center, Woods Hole, Massachusetts,* N.O.A.A. Technical Report N.M.F.S. Circular 407, 1977.

[2] The scientifically more accurate and hence the traditional method of illustrating the geographic distribution of a species is through charts showing both the area in which the species is found and the frequency of appearance. This is the method of illustration that the United States used to show fish species distributions. [*See* Figs. 23 through 27, Annex 1, Vol. IA, United States Counter-Memorial.] This is also the standard method for illustrating the distribution of benthic species. [*See* Theroux and Wigley, *op. cit.*, pp. 69-128; and Williams and Wigley, *op. cit.*, pp. 16-44.] This method of presentation elucidates the interaction of a species with the ecological regimes of the area. For example, for many species, there are dense clusters on the banks, such as Georges Bank and Browns Bank, with breaks in the distribution at the Northeast Channel and in the deep waters of the Gulf of Maine Basin. Canada does not provide distribution charts for benthos, which would have confirmed the existence of separate and identifiable ecological regimes within the Gulf of Maine area.

[3] In the two instances in which the United States used bar charts [United States (23)(42) Memorial, Figs. 7 and 36], the bars represented the range of *stocks* in *fishable quantities*. Accordingly, the bars did not reflect the exceptional appearance of an individual member of a stock beyond the normal range of that stock.

5. Finally, contrary to accepted scientific practice, Canada, in 26 instances, uses a single bar to illustrate the distribution of an entire genus (related but different species) rather than those of individual species that make up the genus. Thus, *in situations where members of one species* cluster on banks, such as Georges Bank and Browns Bank, and members of another species within the same group (genus) cluster in deeper waters, such as the Gulf of Maine Basin or the Northeast Channel, Canada portrays the distribution of the group (genus) as uniform throughout the (83) area. Well over one-half of the distributional bars in Canada's Figure 25 represent the distributions of genera rather than of individual species. (84) Similarly, 29 per cent of the bars in Figure 26, 42 per cent of the bars in (85)(86) Figure 27, and 12 per cent of the bars in Figure 28 depict the distributions of genera.

(83)-(88) 6. In each instance, the bars used by Canada in Figures 25 through 30 inaccurately illustrate distributions of benthos. As is shown in the nine examples discussed hereinafter, published distributional plots for each of the species portrayed by Canada confirm the existence of the three separate and identifiable ecological regimes associated with the Scotian Shelf, the Gulf of Maine Basin, and Georges Bank, respectively.

SECTION 2. Comparison Between the Canadian Presentation of Benthic Distribution Data and Published Charts of Benthic Distribution Data for the Same Species

(83)

A. Canadian Figure 25

7. Canada portrays the spider crab *Hyas coarctatus* as having an even distribution from the Laurentian Channel to south of Cape Hatteras [1]. In fact, as is shown in Figure 1, reproduced here from the work of Williams and Wigley [2], the distribution of this spider crab is not uniform throughout the Gulf of Maine area. Rather, its distribution confirms that the ecological regimes of Georges Bank and the Scotian Shelf are separated from each other by the Northeast Channel. This crab clusters on Browns Bank and German Bank, around the perimeter of the Gulf of Maine Basin, on the northeastern end of Georges Bank, and along the slope of the southern New England continental shelf. The existence of the three regimes would be confirmed as well by an examination of the distribution (83) of any of the other species portrayed in Canada's Figure 25.

(84)

B. Canadian Figure 26

8. Canada portrays an even distribution for the shrimp *Crangon septemspinosis*, which lives on sandy bottoms, from the Laurentian

(83) [1] Canadian Counter-Memorial, Annexes, Vol. I, Fig. 25.

[2] Williams and Wigley, *op. cit.*, p. 25.

Channel to south of Cape Hatteras [1]. In fact, as is shown in Figure 2, reproduced here from the work of Williams and Wigley [2], this shrimp is abundant in the Gulf of Maine area on Georges Bank and Nantucket Shoals and on the southern New England shelf, but its abundance drops off sharply to the northeast of the Northeast Channel.

9. This differentiation among the ecological regimes is revealed even more sharply in the distribution of the bivalve *Astarte castanea,* which Canada also portrays in Figure 26 as distributed evenly from the Laurentian Channel to south of Cape Hatteras. Figure 3, reproduced here from the work of Theroux and Wigley [3], shows that, in the Gulf of Maine area, this bivalve is distributed evenly on Georges Bank and on the southern New England shelf, but that it is not found in the Northeast Channel, nor, except incidentally, in the Gulf of Maine Basin.

10. Canada also portrays in Figure 26 the distribution of the hermit crab *Pagurus acadianus* as extending from the Laurentian Channel to the Great South Channel. As is shown in Figure 4, however, reproduced here from the work of Williams and Wigley [4], this hermit crab, which is also labelled by Canada as a "northern" species, is abundant in the Gulf of Maine area on Georges Bank and the shelf to the southwest, but is not found in abundance to the northeast. There is a marked decrease in the density of this hermit crab at the Northeast Channel, and the Georges Bank regime is clearly distinguished from the regime of the Gulf of Maine Basin and from that of the Scotian Shelf. The existence of these three regimes would be confirmed as well by an examination of the remainder of the species portrayed in Canada's Figure 26.

C. CANADIAN FIGURE 27

11. Canada portrays the bivalve *Venericardia (=Cyclocardia) borealis* as a "northern" species distributed evenly from the Laurentian Channel to south of Cape Hatteras [5]. Figure 5, reproduced here from the work of Theroux and Wigley [6], shows that, in the Gulf of Maine area, this bivalve in fact is concentrated on Georges Bank and along the southern New England shelf, around the rim of the Gulf of Maine Basin, and on Browns Bank. This distribution shows a distinct gap at the Northeast Channel and differentiates the three ecological regimes of the area. The existence of these three regimes would be confirmed as well by an examination of the distribution of any of the species portrayed in Canada's Figure 27.

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[1] Canadian Counter-Memorial, Annexes, Vol. I, Fig. 26.

[2] Williams and Wigley, *op. cit.*, p. 20.

[3] Theroux and Wigley, *op. cit.*, p. 73, Fig. 11.

[4] Williams and Wigley, *op. cit.*, p. 30.

[5] Canadian Counter-Memorial, Annexes, Vol. I, Fig. 27.

[6] Theroux and Wigley, *op. cit.*, p. 86, Fig. 38.

(86) D. CANADIAN FIGURE 28

12. Canada portrays the bivalve *Modiolaria (Musculus) discors* as a "northern" species distributed evenly from the Laurentian Channel to south of Cape Hatteras [1]. As is shown in Figure 6, however, reproduced here from Theroux and Wigley [2], in the Gulf of Maine area this mussel actually is concentrated on the northern edge of Georges Bank, around the perimeter of the Gulf of Maine Basin, and on German Bank and Browns Bank on the Scotian Shelf. This figure confirms the break in the distribution of this species at the Northeast Channel.

(86) 13. Figure 28 also portrays the shrimp *Pandalus borealis* as a "northern" species, in this case one that is distributed evenly from the Laurentian Channel to the Great South Channel. Figure 7, reproduced here from Williams and Wigley [3], shows that, in the Gulf of Maine area, this shrimp is abundant in the Gulf of Maine Basin and is found only occasionally in the deeper waters on the Scotian Shelf, in the Northeast Channel, and along the continental slope on the seaward edge of Georges Bank. An examination of the distribution of any of the other species (86) portrayed in Canada's Figure 28 similarly would confirm the differences between the ecological regime of the Gulf of Maine Basin and those of Georges Bank and the Scotian Shelf.

(87) E. CANADIAN FIGURE 29

14. Canada portrays the ocean quahog *Arctica islandica* as a "northern" species distributed evenly from the Laurentian Channel to south of Cape Hatteras [4]. Figure 8, however, reproduced here from Theroux and Wigley [5], demonstrates that, in the Gulf of Maine area, this bivalve is found in clusters on Georges Bank, along the southern New England shelf, and around the periphery of the Gulf of Maine Basin. This distribution does not extend to any significant degree into the Northeast Channel or onto Browns Bank or German Bank. The differentiation among the three ecological regimes would be confirmed as well by an examination of the distribution of any of the other species portrayed in (87) Canada's Figure 29.

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(86) [1] Canadian Counter-Memorial, Annexes, Vol. I, Fig. 28. K.L. Gosner, whom Canada cites as the source for this figure, called this a "Virginian" species, and not a "boreal", or "northern", species. Gosner, *op. cit.*, p. 299.

[2] Theroux and Wigley, *op. cit.*, p. 100, Fig. 65.

[3] Williams and Wigley, *op. cit.*, p. 34.

(87) [4] Canadian Counter-Memorial, Annexes, Vol. I, Fig. 29. Canada also portrays the (85) distribution of the same bivalve in Fig. 27.

[5] Theroux and Wigley, *op. cit.*, p. 71, Fig. 8.

F. Canadian Figure 30

15. In Figure 30, Canada again depicts the purported distributions of a number of species that are illustrated in the figures described above[1]. Canada adds several other species to this figure, including, e.g., the rock crab, or *Cancer irroratus*, which Canada portrays as a "northern" species distributed evenly from the Laurentian Channel to south of Cape Hatteras. As Figure 9, reproduced here from Williams and Wigley[2], shows, however, in the Gulf of Maine area, this crab is distributed widely on Georges Bank and the continental shelf to the southwest. It is found only rarely on the southwestern end of the Scotian Shelf. Its distribution illustrates the distinction between the Georges Bank regime and those of the Gulf of Maine Basin and the Scotian Shelf, the role of the Northeast Channel as an ecological barrier, and the connection between the Georges Bank regime and the ecology of the southern New England shelf. The differentiation among the three ecological regimes would be confirmed as well by an examination of the distribution of any of the other species portrayed in Canada's Figure 30.

CONCLUSION

16. In summary, in Figures 25 through 30 of Volume I of the Annexes to its Counter-Memorial, Canada implies that most benthos in the Gulf of Maine area are northern species distributed evenly from the Laurentian Channel at least as far to the southwest as the Great South Channel. To the contrary, even a cursory glance at the actual distributional patterns of a number of the species that Canada purports to portray shows that the reality is very different. The distributional patterns of benthos only serve to confirm the existence of three separate and identifiable ecological regimes associated with Georges Bank, the Scotian Shelf, and the Gulf of Maine Basin.

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[1] Canadian Counter-Memorial, Annexes, Vol. I, Fig. 30. These species include the spider crab *Hyas coarctatus*, and the bivalve *Venericardia borealis*, illustrated in Canadian Figs. 25 and 27, respectively, and in Figs. 1 and 5, above.

[2] Williams and Wigley, *op. cit.*, p. 18.

Annex 25

A CRITIQUE OF THE ANALYSIS IN THE CANADIAN COUNTER-MEMORIAL OF THE PHYSICAL OCEANOGRAPHY OF THE GULF OF MAINE AREA: TEMPERATURE AND SALINITY

INTRODUCTION

1. As the United States showed in Annex 1 to its Counter-Memorial, the separate and identifiable oceanographic regimes associated with the Scotian Shelf, the Gulf of Maine Basin, and Georges Bank are characterized by different temperatures and salinities [1]. The analysis contained in Volume I of the Annexes to the Canadian Counter-Memorial obscures these distinctions. Canada describes an oceanographic uniformity in the Gulf of Maine area and contrasts it with the oceanography of regions adjacent and beyond, notwithstanding that the oceanography of those regions is irrelevant to this delimitation. To the extent that Canada acknowledges that there are variations within the oceanography of the Gulf of Maine area, it implies that such variations are unpredictable and arbitrary. Careful scrutiny of the figures with which Canada supports *these views, however, only confirms the differences among the three* oceanographic regimes of the area. In addition, more straightforward and logical presentations of temperature and salinity data illustrate these differences even more clearly.

SECTION 1. Significance of Slope Water

(81) 2. Canada's portrayal of temperatures and salinities in Figure 13 and (82) its depiction of temperatures in Figure 14, of Volume I of the Annexes to its Counter-Memorial, purport to show that the differences among the *temperatures and salinities of the three separate and identifiable regimes* of the Gulf of Maine area are not as significant as the differences between those regimes as a whole and the water above the continental shelf slope [2].

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[1] United States Counter-Memorial, Annex 1, Vol. IA, paras. 9-37.

[2] Canada asserts that "[t]he meaningful temperature differential is ... found ... between all surface water on the continental shelf of the Gulf of Maine area and the waters further offshore above the continental slope." [Canadian Counter-Memorial, para. 184.] Canada does not explain in what respects this differential is "meaningful". [*See also* Canadian Counter-Memorial, Annexes, Vol. I, para. 54.]

Canada's assertions to the contrary notwithstanding, the more substantial differences between the water masses above the continental shelf and those above the continental slope do not diminish the critical significance of the differences among the regimes within the Gulf of Maine area. The slope water is important because of its effect upon the water of the Gulf of Maine Basin and Georges Bank. The influx of slope water through the Northeast Channel causes the significant differences between these two water masses and the Scotian Shelf water mass [1].

(81)

SECTION 2. Canadian Figure 13

(81) 3. Figure 13 in Volume I of the Annexes to Canada's Counter-Memorial is a confusing combination of six temperature and salinity diagrams. The original from which this figure was redrawn appears in an article that focuses upon the water in the Gulf of Maine Basin [2]. The original figure, which superimposes *three* separate diagrams for the Gulf of Maine Basin over one each for the Scotian Shelf, Georges Bank, and the continental slope, was designed by the authors specifically to show the dynamics of the water in the Gulf of Maine Basin. The combination, in both the original figure and Canada's redrawing, of six diagrams obscures the differences between the separate regimes of the Scotian Shelf and Georges Bank.

4. The temperature and salinity differences between the Scotian Shelf water mass and the Georges Bank water mass can be seen more clearly in (199) Figure 1 of this Annex, which reproduces the two relevant diagrams from (81)(199) Canadian Figure 13. As Figure 1 demonstrates, the Georges Bank water mass reaches temperatures about five degrees centigrade greater than those on the Scotian Shelf. Similarly, much of the water mass over the Scotian Shelf is considerably less saline than that over Georges Bank—as much as nearly one full part-per-thousand. As the United States noted in

[1] *See* United States Counter-Memorial, Annex 1, Vol. IA, paras. 9-37, and 114-125. Although Canada avoids a discussion of the importance of the Northeast Channel to the marine environment of the area, Canada recognizes that slope water enters the Gulf of Maine Basin through the Northeast Channel in sufficient volume to replace the deep water of the Basin every year. [Canadian Counter-Memorial, Annexes, Vol. I, para. 50.] As the United States noted in Annex 1 to its Counter-Memorial, the greater part of the water in the Gulf of Maine Basin (60 to 70 per cent annually) enters the Basin in this manner [para. 12]. Georges Bank water is a mixture of this water and the surface water entering the Basin from the Scotian Shelf. [*Ibid.*, para. 13.]

[2] T.S. Hopkins and N. Garfield, "Gulf of Maine Intermediate Water", in *Journal of Marine Research*, Vol. 37, No. 1, 1979, pp. 103-139. Deposited with the Court by Canada in connection with its Counter-Memorial pursuant to Article 50(2) of the Rules of Court.

Annex 1 to its Counter-Memorial, differences of this magnitude have profound effects upon the oceanography and ecology of each regime [1].

(81) 5. Figure 13 fails to distinguish between those temperature and salinity values that are frequently encountered in each regime, and extreme temperature and salinity values that are rarely encountered. As a result, the figure indicates that there is a greater similarity between the water masses of the Scotian Shelf regime and the Georges Bank regime than exists in fact.

(81) 6. Similarly, Canada's Figure 13 obscures the differences between the two regimes by combining data reflecting nearly an entire year without distinguishing between seasons. Thus, were the Georges Bank and Scotian Shelf water masses each to have the same temperature and salinity at different times of the year, the two "envelopes" would be portrayed in the figure as overlapping, although there was no coincidence of temperature and salinity in the regimes at the time the data were gathered.

7. In Annex 1 to its Counter-Memorial, the United States, in order to illustrate the differences in temperature and salinity between the Scotian Shelf water mass and the Georges Bank water mass, charted the average

[1] United States Counter-Memorial, Annex 1, Vol. IA, paras. 18, 22, 26, and 27. Differences in temperature and other physical environmental factors, such as water currents and salinity, affect marine organisms in all their life stages. T. Laevastu and M. L. Hayes, *Fisheries Oceanography and Ecology*, 1982, pp. 4-38. For example, the differences in growth rates noted in Table B (p. 97) of Annex 1 to the United States Counter-Memorial, for different stocks of cod, herring, haddock, silver hake, red hake, redfish, yellowtail flounder, and scallops, can be attributed largely to differences in temperature among the regimes. *See also* United States Counter-Memorial, Annex 1, Vol. IA, Fig. 29; C.C. Taylor, "Cod Growth and Temperature", in *Journal du Conseil*, International Council for the Exploration of the Seas (I.C.E.S.), Vol. XXIII, No. 3, 1958, pp. 366-370. Temperature and salinity also affect, *inter alia*, the duration of the egg and larval stages of marine organisms and the range of distribution of marine organisms. R. Lasker and K. Sherman, eds., *The Early Life History of Fish: Recent Studies*, in *Rapports et Procès-Verbaux des Rêunions*, I.C.E.S., Vol. 178, 1981, pp. 30-40, 200, 312-313, 345-348, 393-394, 401, 409-415, 460-466, and 553-559; B.L. Olla, A.L. Studholme, A.J. Bejda, and C. Samet, "Role of Temperature in Triggering Migratory Behavior of the Adult Tautog *Tautoga onitis* Under Laboratory Conditions", in *Marine Biology*, Vol. 59, 1980, pp. 23-30; Laevastu and Hayes, *op. cit.*, pp. 4-38; S.B. Brandt and V.A. Wadley, "Thermal fronts as ecotones and zoogeographic barriers in marine and freshwater systems", Proceedings Ecological Society of Australia, Vol. 11, 1981, pp. 13-26; and J.J. Magnuson, C.L. Harrington, D.J. Stewart, and G.N. Herbst, "Responses of macrofauna to short-term dynamics of a Gulf Stream front on the continental shelf", in *Coastal Upwelling, Coastal and Estuarine Sciences*, Vol.1, 1981, pp. 441-448.

water column densities [1] for the Gulf of Maine area in each of the four different seasons of the year [2]. In each season, the Scotian Shelf regime was shown to be different from the Georges Bank regime, with the two regimes separated from each other by the Northeast Channel.

8. The difference between the Georges Bank water mass and the other water masses of the Gulf of Maine area is acknowledged in the article (81) from which Canada derived its Figure 13:

> "The water over Georges Bank defines a distinct water mass by reason of its homogeneity and low seasonal variance in salinity [3]."

Elsewhere in the same article, Hopkins and Garfield note that the "separate water mass" of Georges Bank "commonly does not extend off the Bank [4]."

(82) SECTION 3. Canadian Figures 14 and 15

(82) 9. Figure 14 of Volume I of the Annexes to the Canadian Counter-Memorial displays surface temperatures for the Scotian Shelf, the Gulf of Maine Basin, and Georges Bank. Figure 15 of the same volume displays summer and winter vertical temperature structures for a number of points in the Gulf of Maine area, including Georges Bank and Browns Bank.

10. The temperature data in both figures are presented on such a small scale that it is difficult to perceive the differences in temperatures among (82) the three regimes. In Figure 14, five degrees centigrade are represented by 9/16ths of an inch (1.4 centimeters), and in Figure 15, the scale is even smaller—20 degrees centigrade are displayed over less than one inch (2.5 centimeters).

(82) 11. Notwithstanding its small scale, Figure 14 shows that the three oceanographic regimes of the Scotian Shelf (including Browns Bank), the Gulf of Maine Basin, and Georges Bank, have different surface temperatures throughout the year and different annual cycles. For example, the differences between surface temperatures over Georges Bank and Browns Bank are evident during all but three months of the year (late June to early September), and even during those months, the temperatures are not

[1] The density of the water is a function of both its temperature and salinity.

[2] United States Counter-Memorial, Annex 1, Vol. IA, Fig. 14.

[3] Hopkins and Garfield, *op. cit.*, p. 135.

[4] *Ibid.*, p. 110. The authors also note that, although both the Scotian Shelf water and the slope water were "input water masses" to the Gulf of Maine Basin, the input of the Scotian Shelf water is only "incidental", whereas the input of the slope water is "necessary" to the vertical circulation (overturning and mixing) of the waters in the Gulf of Maine Basin. *Ibid.*, p. 135. *See* United States Counter-Memorial, Annex 1, Vol. IA, paras. 117-122.

identical. The temperature differences can be seen even more clearly if (200)(82) the figure is enlarged. Figure 2 reproduces, from Canadian Figure 14, the annual cycles for the surface waters of the western Scotian Shelf, Browns Bank, Gulf of Maine Basin, and Georges Bank, but expands the scale twofold.

12. Although the diminutive scale in Figure 15 makes it impossible to estimate temperatures precisely, the figure nonetheless demonstrates that the water over Browns Bank (as well as that over other points shown for the Scotian Shelf) is noticeably colder in the winter and summer than the water over Georges Bank.

13. Temperature data can be displayed in a manner that makes its (121) evaluation simpler and more accurate. In Figure 11C of Annex 1 to its Counter-Memorial, the United States reproduces a satellite image of surface temperatures in the Gulf of Maine area taken on 14 June 1979, superimposed with temperature gradients to indicate the places where surface temperatures change markedly over a short distance. The three oceanographic regimes are distinguished readily from one another in this figure. This pattern is not a momentary occurrence, as can be seen in Figure 3, which reproduces satellite images of surface temperatures and temperature gradients for a day in June in four consecutive years [1]. Figure 3 shows the predictability and repetitiveness of the marine environment from year to year. In each case, an examination of the temperature gradients reveals that Georges Bank stands out as separate and distinct from the Gulf of Maine Basin and the Scotian Shelf. The surface temperatures follow an annual cycle each year. This cycle is illustrated in Figure 4, which shows satellite images of surface temperatures and gradients for the 12 months of the year [2].

14. Forty years of surface-temperature data reveal both the significant differences among the regimes and the annual repetitiveness within each regime. Figure 5 displays 40 years (1941-1980) of temperature data for the uppermost 150 meters of the water column over the Scotian Shelf, the Gulf of Maine Basin, and Georges Bank [3]. Within each regime, the

[1] These scenes are for 13 June 1979, 17 June 1980, 29 June 1981, and 21 June 1982.

[2] Eight of these scenes are for 1982. The other four are from 1979 and 1980 because the available 1982 images for these months were obscured by clouds. The specific dates for these scenes are: 28 Jan. 1982, 1 Feb. 1982, 19 Mar. 1982, 19 Apr. 1982, 7 May 1979, 13 June 1979, 2 July 1982, 30 Aug. 1982, 19 Sep. 1982, 10 Oct. 1980, 8 Nov. 1982, 12 Dec. 1979.

[3] These data are from files of the National Oceanographic Data Center. The average temperatures are given for the uppermost 150 meters of water, except for areas that do not reach that depth.

annual cycles are clear. For example, over Georges Bank for these 40 years, the cold months of the year are depicted in Figure 5 in two shades of medium blue (two to six degrees centigrade), and the warm months in three shades of green (six to 12 degrees centigrade), changing to yellow and red (12 degrees centigrade and above). A comparison between the Georges Bank and Scotian Shelf regimes reveals that the Scotian Shelf regime is consistently cooler than the Georges Bank regime, with a longer cold season characterized by extensive dark blue patches (less than two degrees centigrade), and a shorter and cooler summer season reflected in considerably less yellow and red (temperatures above 12 degrees centigrade) than that for Georges Bank. The Gulf of Maine Basin regime is different from each of these other two regimes, as shown by fewer extremes in temperature (no temperatures below two degrees centigrade and none above 14).

15. Although the Canadian Counter-Memorial focuses almost exclusively upon surface temperatures, bottom temperatures are at least as important, and perhaps more so, to the marine ecology of the area. Most of the commercial species in the area are groundfish and benthos (scallops and lobster), which live on or near the seabed rather than near the sea surface. (120) The United States, in Figure 10 of Annex 1 to its Counter-Memorial, charted the results derived from collecting samples of bottom temperatures for 40 years. That figure also shows the clear distinctions among the oceanographic regimes of Georges Bank, the Gulf of Maine Basin, and the Scotian Shelf.

Annex 26

A Critique of the Analysis in the Canadian Counter-Memorial of the Geomorphology in the Gulf of Maine Area

1. The geomorphology of the seabed in the Gulf of Maine area differs from the deep geology of that area in one respect that is particularly important for this case. The seabed may be measured, surveyed, and otherwise studied by a variety of means, including much more direct methods of observation than are available for subsurface structures. As such, the location and dimensions of particular features, as well as differences in the composition and shape of the seabed itself, may be determined with a significantly greater degree of certainty.

2. The Canadian Counter-Memorial appears to lose sight of this distinction in asserting that the United States Memorial is inconsistent in simultaneously acknowledging the continuous geological structure of the continental shelf in the Gulf of Maine area, while suggesting that a "separation", as it is termed by Canada, does in fact exist [1]. As each of the United States pleadings has made clear, the United States does not maintain that the Northeast Channel is a feature of such marked disruption in the seabed as to constitute an indisputable indication of two separate continental shelves. Nevertheless, the Northeast Channel is the only significant break in the *surface* of the shelf in the Gulf of Maine area.

3. The Canadian Counter-Memorial resorts to the same notion of "affinities" that is advanced with regard to the deep geology of the area. In this instance, although Canada also makes the claim that Georges Bank is a "detached offshore bank [2]", it argues that, "to the extent" that Georges Bank bears geomorphological affinities to any other part of the shelf, they are with the Scotian Shelf to the northeast [3]. As is discussed hereinafter, Georges Bank is not a "detached bank", and Canada's notion of surficial affinities between Georges Bank and the Scotian Shelf is incorrect, as in fact is demonstrated by several of the graphics proffered in Volume I of the Annexes to the Canadian Counter-Memorial. Indeed, the

[1] Canadian Counter-Memorial, para. 171.

[2] Canadian Counter-Memorial, para. 175; *see also* Canadian Memorial, para. 23.

[3] Canadian Counter-Memorial, paras. 170 and 175; *see also* Canadian Counter-Memorial, Annexes, Vol. I, paras. 21-30.

Northeast Channel does "separate" the non-glacially eroded shelf of Georges Bank southwest to New York from the extensively eroded shelf of the Gulf of Maine Basin and the Scotian Shelf.

4. The first part of the Canadian argument, that Georges Bank is a "detached offshore bank", is based upon a proposition that ignores even the most readily observable physical evidence. That Canadian proposition is that the Northeast Channel and the Great South Channel are sufficiently alike in terms of geomorphology so as to "separate" Georges Bank, to a similar extent at both ends, from the adjacent shelf [1]. As Canada then proceeds to argue, Georges Bank itself, as the "'picture' framed by the two channels", is the "true" relevant circumstance in the area [2].

5. In response, the United States initially notes that the pleadings of both Parties amply demonstrate that, even in the simplest terms of depth and gradients, the two channels differ markedly [3]. As Figure 6 of the United States Counter-Memorial graphically shows, the Canadian Hydrographic Service, in its chart of the continental margin of eastern North America, certainly does not consider the two channels to be alike: only the Northeast Channel appears on this official Canadian chart. As one can see by viewing this and other charts of the margin, there is an essentially smooth continental shelf extending from New York along the entire length of Georges Bank, where the eye immediately is drawn to the only interruption in the surface of the shelf that cuts across the entire width of that shelf, the Northeast Channel.

6. The Canadian Counter-Memorial also attempts to denigrate the significance of the Northeast Channel by its assertions that the Gulf of Maine area is virtually a "featureless plain [4]", with the Northeast Channel a mere "wrinkle of geomorphology [5]", and that none of the seabed features is discernible except with the aid of extensive vertical exaggeration [6]. There are two principal responses to this contention. First, the argument misses the point, for in the actual environment of the Gulf of Maine, the Northeast Channel is readily discernible, and as a result its location and dimensions have been plotted accurately on charts and other graphics countless times over. The use of bathymetric contours to define such features in graphic form should hardly provoke any difficulties; such contours are the standard means by which navigators and others locate

[1] Canadian Counter-Memorial, para. 175.

[2] Canadian Counter-Memorial, para. 175.

[3] United States Memorial, para. 31; United States Counter-Memorial, paras. 37-40; Canadian Memorial, para. 23.

[4] Canadian Counter-Memorial, para. 176.

[5] Canadian Counter-Memorial, para. 28.

[6] Canadian Counter-Memorial, para. 176.

seabed features, and indeed, Georges Bank itself, which Canada has termed the "true" relevant circumstance in the area, is defined by means of these same bathymetric contours. The second point is that it is curious, if not inexplicable, that Canada should find the use of vertical exaggeration *misleading*. In its Memorial, Canada did not hesitate to use vertical exaggeration in Figure 12 to illustrate the continental shelf, explaining that "such visual aids are necessary to permit appreciation of this continuous and important physiographic feature [1]". Furthermore, in Figure 18 of its Counter-Memorial, Canada used a vertical exaggeration multiple of 70 in order to illustrate its point. Therefore, it is clear that the importance of physiographic features, including the Northeast Channel, is not lessened by the use of methods of illustrating these features and demonstrating that very importance, methods that are widely accepted, including by Canada.

(60)

7. Canada also attempts to buttress its comparison of the Northeast Channel and the Great South Channel with a discussion that suggests that the two channels have undergone a common historical development. Although the United States and Canada both have discussed the fluvial and glacial history of the two channels, their respective approaches are quite different. The United States, in Annex 5 to its Counter-Memorial, demonstrated that the very different glacial activity that occurred in each of the channels is reflected today in the very different size and shape of those channels. Much of the Canadian discussion of the history of the two channels, however, bears little relationship to the shape of the seabed today. Rather, it is merely a description of how the Great South Channel long ago was much deeper than it is today, and includes only cryptic references to the subsequent glacial activity that since has obliterated all but the seismic traces of most of these ancestral features. Accordingly, these events bear no relationship to the shape of the seabed today, but instead reflect precisely the type of history that the Court found to be irrelevant in the *Tunisia/Libya* case [2].

8. To the extent that Canada does address that part of the glacial histories of the Northeast Channel and the Great South Channel that is reflected in the seabed today, its discussion and accompanying graphics are inconsistent, even contradictory. Canada contends that the glacial processes "scoured the area of the Great South Channel [3]", and caused the "cutting [of] the Great South Channel and Northeast Channel [4]". This account is incorrect; moreover, it does not coincide with the pertinent illustration. That figure, Figure 2 in Canada's Annex [5], shows that the

[1] Canadian Memorial, para. 66.

[2] *I.C.J. Reports 1982, pp. 53-54, para. 61.*

[3] Canadian Memorial, para. 71. [Citation omitted.]

[4] Canadian Counter-Memorial, Annexes, Vol. I, para. 18.

[5] Canadian Counter-Memorial, Annexes, Vol. I, Fig. 2.

most recent, and thus the most significant, glacier advanced to the sea along the Scotian Shelf and through the Northeast Channel, but that it did not advance across the area of the Great South Channel, nor, indeed, most of Georges Bank. In fact, it is Figure 2, which was derived from the same source as Figure 3 in Annex 5 to the United States Counter-Memorial, that is the accurate rendition of this glacial activity, and not the textual description presented by Canada. It was only the Northeast Channel, and not the Great South Channel or the rest of Georges Bank, that was scoured by this glacial advance, and this is reflected in the shape and composition of these features today.

9. Although it has raised the argument that Georges Bank is a "detached" bank, Canada also claims that there are certain geomorphological "affinities" between the Bank and the Scotian Shelf. One aspect of this argument is Canada's division of the East Coast Continental Shelf into "four broad physiographic provinces [1]". As was outlined in the United States Counter-Memorial, it is possible to divide this shelf into provinces that reflect both the shape and the composition of the seabed. The Canadian approach, however, is too simplistic, designed to show that "the only significant geomorphological differentiation [2]" is found in the vicinity of the Great South Channel. Canada's division is based upon the preliminary and elementary criterion of whether or not the shelf is "glaciated [3]". Although Canada makes reference to the "scoured surface of the entire seabed from the Scotian Shelf as far south as the Cape Cod-Nantucket Shoals-Great South Channel area [4]", there is no attempt to address fully and consistently the next logical means of differentiation: that of distinguishing between the different types of glaciation, erosion or deposition.

10. In this regard, the United States previously has demonstrated that the continental shelf all the way from New York to Newfoundland is a glaciated shelf [5]. The United States then proceeded, however, to refine the analysis, and to show that a distinct boundary between the part of this shelf that was eroded by the glacier and the part that was not eroded is located along the northern edge of Georges Bank and through the Northeast Channel [6]. Figure 5 of Annex 5 to the United States Counter-Memorial also shows the pattern of this glacial erosion and that of the glacial outwash that formed much of Georges Bank and Nantucket Shoals. As was mentioned earlier, Canada refers to a "scoured seabed" throughout the Gulf of Maine area, thereby suggesting that this entire area was

[1] Canadian Memorial, para. 67; Canadian Counter-Memorial, para. 177.

[2] Canadian Counter-Memorial, para. 177.

[3] Canadian Counter-Memorial, para. 177.

[4] Canadian Counter-Memorial, Annexes, Vol. I, para. 2.

[5] United States Counter-Memorial, Annex 5, Vol. IV, para. 4.

[6] United States Counter-Memorial, Annex 5, Vol. IV, paras. 5-10, and 13.

glacially eroded. Once again it is difficult to reconcile Canada's textual description with the illustration offered in support of that text. Figure 2 in volume I of the Annexes to the Canadian Counter-Memorial indicates that the glacier advanced to, *but not across*, Georges Bank and the shelf to the southwest as far as New York, clearly supporting the United States characterization of the shelf from New York to the Northeast Channel as composed largely of materials deposited by the front of the ice sheet. There is no "geomorphological differentiation" in the vicinity of the Great South Channel reflected on this map; there is, however, a geomorphological boundary in the vicinity of the Northeast Channel, representing, in part, the limits of that glacial advance.

11. Canada's notion of geomorphological affinities stems in part from a purported continuity in sediment composition that, according to Canada, "extend[s] in a broad band from the Scotian Shelf across Georges Bank [1]". Specifically, Canada claims that the distribution of mud, sand, and gravel "shows a continuity in the pattern of sediment distribution throughout the Gulf of Maine area . . . [2]". Canada's analysis is flawed, however, and its presentation features the same inconsistency between text and accompanying graphics that has undermined several of its other arguments.

12. Canada's use of mud, sand, and gravel distribution patterns is a primitive method that oversimplifies the difficult task of determining the density and origins of sediments. These patterns of distribution apparently are based upon measurements of the grain size of sediments retrieved from isolated sample locations on the continental shelf. The various grain sizes are grouped loosely as either mud (fine), sand (medium), or gravel (coarse). It is impossible to determine from this method the "depositing agent", or means by which these sediments were deposited on the shelf, i.e., glacial outwash, glacial till, or fluvial deposition. Accordingly, the mapping of these patterns is of questionable significance, and is of little assistance in determining the geomorphological origins and composition of the shelf.

13. Quite apart from the primitive nature of Canada's analysis of sediments in the Gulf of Maine area, it is noteworthy that the figures proffered in Volume I of the Annexes to the Canadian Counter-Memorial in support of that analysis are more supportive of a geomorphological division at the Northeast Channel than at the Great South Channel. Figure 5, which purports to depict the distribution of mud, shows that any "affinities" in the area are principally between the Gulf of Maine Basin and the Scotian Shelf, and between Georges Bank and the shelf farther to the southwest, in keeping with the geomorphological provinces as described by the United States. The distribution of sand depicted on Figure

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[1] Canadian Counter-Memorial, para. 179. [Citation omitted.]

[2] Canadian Counter-Memorial, Annexes, Vol. I, para. 22.

6 shows a significant break in an otherwise continuous heavy concentration of sand (from more than 80 per cent to 20 per cent or less) occurring in the vicinity of the Northeast Channel. Finally, Figure 7 shows heavy concentrations of gravel throughout the Scotian Shelf, but only in a few isolated areas on Georges Bank, as was described earlier by the United States [1].

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[1] United States Memorial, para. 33.

Annex 27

A Critique of the Analysis in the Canadian Counter-Memorial of the Geology in the Gulf of Maine Area

1. The discussion in the Canadian Counter-Memorial relating to the geological setting in the Gulf of Maine area introduces a geological argument into this case in the face of Canada's otherwise unequivocal acknowledgment that the geological structure of the continental shelf is "a single, continuous, uninterrupted feature [1]".

2. It initially appears that the Parties are in agreement with respect to the irrelevance of geology to the delimitation in this case [2]. Indeed, Canada draws an analogy between the continental margin in the Gulf of Maine area and that under consideration by the Court in the *Tunisia/Libya* case [3]. As it relates to the geological structure, this analogy holds true: there are no separate *geological* prolongations present in the Gulf of Maine area. Irrespective of this common ground, however, Canada proceeds to argue that,

> " . . . *to the extent* that Georges Bank exhibits particular affinities to the geological structure of any area of the continuous margin of which it forms a part, these affinities are with areas to the north and northeast [4]".

Moreover, Canada characterizes the New England Seamount Chain as a feature "that disturbs the structural integrity of the basement block and extends seaward off Cape Cod in the vicinity of the Great South Channel [5]".

3. The discussion of geology in the Canadian Counter-Memorial, apparently an attempt to reserve a geological argument should the need later arise, is contradictory on its face. The geological structure throughout the Gulf of Maine area is continuous and uninterrupted, as each of the Parties has acknowledged. It necessarily follows that there can be no basement feature, whether the New England Seamount Chain or any

[1] Canadian Counter-Memorial, para. 168.

[2] United States Counter-Memorial, para. 35; Canadian Counter-Memorial, paras. 168 and 171.

[3] Canadian Counter-Memorial, para. 171.

[4] Canadian Counter-Memorial, para. 171. [Emphasis added.]

[5] Canadian Counter-Memorial, para. 171. [Citation omitted.]

other, that can, as Canada asserts, disturb the very integrity of that structure. Such a disturbance would render the shelf discontinuous and interrupted.

4. Apart from the logical flaws underlying the Canadian approach to geology, the facts do not support that approach. As was discussed in Annex 5 to the United States Counter-Memorial, the New England Seamount Chain does not disrupt the essential continuity and northeastward trend of the geological structure of the continental shelf [1]. Moreover, there is no compelling or even persuasive evidence to support the speculation of a few scientists, a proposition seized upon by Canada, that the Seamount Chain is connected, in the form of a "belt of seismicity", with the White Mountain intrusives of the mainland United States and Canada.

5. The Canadian Counter-Memorial raises the spectre of another possible argument that would contradict Canada's express acknowledgment that the deep geology in the Gulf of Maine area is continuous and uninterrupted. The Counter-Memorial reiterates and expands upon the description in the Canadian Memorial of the Yarmouth arch and the Georges Bank basin and Scotian basin [2]. The Yarmouth arch, an uplifted, ridge-like structure, is described as a basement structure that extends transversely beneath the Northeast Channel to the southeastern part of Georges Bank [3]. The arch is said to separate partially the low-lying, sediment-filled Georges Bank and Scotian basins, with the Scotian basin thereby also extending beneath the southeastern part of Georges Bank [4]. The apparent intent of the Canadian discussion is to suggest that the Yarmouth arch and this "extension" of the Scotian basin represent a geological prolongation of Canada that reaches the basement beneath Georges Bank.

6. In response, it first must be noted that the precise descriptions, as (58) well as the exact depiction of basement features found in Figure 16 of the Canadian Counter-Memorial, can neither be supported nor challenged unequivocally in the light of the data currently available. Each of the features discussed lies far beneath the seabed, covered with many kilometers of overlying, hardened sedimentary rock. The indirect seismic techniques by which these features are studied, and, just as important, the varying interpretations that geologists reasonably have drawn from the necessarily incomplete data collected by these techniques, means that geologists are able to infer only the broad outlines and interrelationships of these basement features. Although deep drilling is capable of adding to the

[1] United States Counter-Memorial, Annex 5, Vol. IV, paras. 28 and 29.

[2] Canadian Memorial, para. 80.

[3] Canadian Memorial, para. 80; *see also* Canadian Counter-Memorial, para. 173.

[4] Canadian Memorial, para. 80; Canadian Counter-Memorial, para. 173.

sophistication of the analysis, the drilling conducted on Georges Bank by United States oil companies has taken place in areas of undisputed United States jurisdiction. Furthermore, there has been no drilling conducted pursuant to Canadian authorization anywhere on Georges Bank.

7. The conclusions that may be derived from information currently available concerning the basement features described by Canada confirm that they represent neither a disruption in the geological continuity of the area, nor a geological "extension" of Canada beneath the edge of Georges Bank. It appears from the available data that the Yarmouth arch is, by way of illustration, much like a ridge that protrudes, to some extent, into a surrounding, sediment-filled "valley", representing the Georges Bank basin. Nevertheless, it is clear that, despite the projection of the arch into the basin, the basement structure remains essentially a continuous series of interconnected basins that extends the length of the east coast continental margin. *Furthermore, virtually all of the layers of sedimentary rock that* comprise the shelf in the Gulf of Maine area extend uninterrupted over and across the deeply buried Yarmouth arch [1]. Although geologists have assigned various areas of the basin structure such names as "Georges Bank basin", "Baltimore Canyon trough", and "Scotian basin", these are simply for convenience, and, in fact, have not been used consistently to describe the same areas [2]. These labels do not accord any weight to the suggestion of Canada that the part of this continuous basin structure that lies beneath the southeastern tip of Georges Bank bears any peculiar "affinities" to the geological structure of the Canadian margin alone.

8. The oblique contention of Canada that Georges Bank exhibits affinities with the geological structure to the northeast also has been discussed in Annex 5 to the United States Counter-Memorial. It was noted there that similarities among various basement rocks are commonplace throughout the eastern continental margin of North America, as is to be expected of a continuous geological structure [3]. The trend of the deep geological structures in the Gulf of Maine area is parallel to the general direction of the coastline, and thus no directional trend or "affinities" may be assigned arbitrarily between similarities in rock types at any two points within that structure.

9. In summary, notwithstanding the assertions and suggestions to the contrary that appear in certain parts of the Canadian pleadings, the deep geological structure of the Gulf of Maine area is continuous and uninterrupted.

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[1] Canada has acknowledged this fact in its Memorial, at para. 80.

[2] Compare, for example, the descriptions of the Scotian basin by Canadian geologists contained in the articles discussed in para. 27 of Annex 5, Vol. IV, of the United States Counter-Memorial, with the descriptions and graphic depictions of that basin contained in the Canadian Memorial and Counter-Memorial.

[3] United States Counter-Memorial, Annex 5, Vol. IV, para. 21.

Annex 28

A Critique of the Analysis in the Canadian Counter-Memorial of the Historical and Recent Activities of United States Fishermen on Georges Bank

Introduction

1. In its Memorial and Counter-Memorial, the United States demonstrated that United States fishermen began fishing on Georges Bank over 150 years ago and since have fished there continually, and that they fished there to the virtual exclusion of fishermen from Canada and other States until the 1950s.

2. In its Counter-Memorial, Canada attempts not only to establish that Canadian fishing activities on Georges Bank have deep historical roots, but also to diminish the significance of the historical activities of the United States fishermen and to belittle their more recent activities. As the United States demonstrates in Annex 29 to its Reply, the evidence that Canada has introduced regarding its historical fishing activities on Georges Bank establishes at most that, prior to the 1950s, Canadian fishermen visited Georges Bank only occasionally. Canada's assertions regarding United States fishing activities are also unfounded.

3. Canada disparages the significance of United States fishing on Georges Bank in the 19th century by calling into question both the origin and extent of those activities. Canada implies that the early United States fisheries on Georges Bank were an incidental and unimportant part of much larger fisheries scattered throughout the Northwest Atlantic Ocean [1], and that, in any event, the Georges Bank fisheries were limited to the western part of the Bank [2]. Canada portrays the activities of United States fishermen in the 20th century as the remnants of a purportedly declining industry [3], in comparison to what is alleged to be an expanding Canadian industry [4].

4. The origins of the contemporary United States fisheries on Georges Bank date to the early part of the 19th century and include virtually every stock of commercial importance on Georges Bank. The United States alone was responsible for the discovery of each of the major fisheries, from the groundfish fishery in the early 19th century, through the swordfish

[1] Canadian Counter-Memorial, paras. 322-327.

[2] Canadian Counter-Memorial, para. 327.

[3] Canadian Counter-Memorial, paras. 258, 275-276, and 330-331.

[4] Canadian Counter-Memorial, paras. 257, 322, and 355.

fishery and the more recently developed scallop fishery in the 1930s, to the offshore lobster fishery in the 1960s. The fishing industry of New England has always been a significant part of the economy of the area and has been expanding rapidly, not "declining", since the extension of exclusive fisheries jurisdiction by the United States in 1977 [1].

SECTION 1. Groundfish Fishery

5. The first sustained fishery on Georges Bank was a groundfish fishery for fresh halibut. United States fisherman exploited the fresh halibut fishery on Georges Bank between 1828 and 1848 [2]. This fishery supplied nearly all the halibut landed by New England vessels during this period, and was conducted in the deeper water on the northeastern part of the Bank [3]. Most of the fishing vessels engaged in this fishery were from Gloucester, Massachusetts, and from Maine, although some came from as far south as New London, Connecticut [4].

6. Changes in consumer preferences for fresh fish and the proximity of Georges Bank to the principal New England fishing ports led to expanded fishing activity on Georges Bank. By the middle of the 19th century, Georges Bank sustained a level of fishing and related activities commensurate with its status as the largest and richest fishing ground adjacent to the coast of the United States.

[1] *Since the United States extended its fisheries jurisdiction to 200 nautical miles in* March, 1977 the United States fishing industry in general, and the New England industry in particular, has grown rapidly and vigorously. In 1976, there were 783 vessels in the New England fleet, of which 66 were larger than 150 gross registered tons (GRT). In 1981, there were 1,278 vessels, of which 178 were larger than 150 GRT. The total number of vessels thus grew 63 per cent. The number of large vessels, i.e., those capable of fishing year-round on Georges Bank, grew 170 per cent. [Data calculated on the basis of Appendix A to this Annex.] This growth in the size of the fleet has not been accompanied by any substantial change in ownership patterns. Unlike the situation in Canada, where ownership of the offshore fleet is concentrated in a few large firms, the great majority of United States offshore vessels are owned by individuals.

[2] G.B. Goode, *The Fisheries and Fishery Industries of the United States*, 1887, Sec. V, Vol. I, p. 32. United States Memorial, Annex 18, Vol. II. There are reports of fishing on Georges Bank by fishermen from Marblehead, Massachusetts, as early as the 18th century.

[3] Goode, *op. cit.*, Sec. V, Vol. I, pp. 4, and 29-35. Deposited with the Court in connection with the United States Memorial pursuant to Article 50(2) of the Rules of Court.

[4] Goode, *op. cit.*, Sec. 5, Vol. I, pp. 34, and 38-39. United States Memorial, Annex 18, Vol. II; and United States Counter-Memorial, Annex 23, Vol. V.

7. With the sudden decline in the abundance of halibut on Georges Bank in 1849 and 1850, the majority of those fishing on the Bank began to fish for cod to supply the expanding fresh fish market. Shortly thereafter, United States fishermen expanded the fishery to include fresh haddock, which consumers preferred over cod. During the winter and spring, the fresh groundfish fishery was conducted on the "Winter Fishing Ground", located on the eastern part of Georges Bank [1]. To this day, the winter groundfish fishery on the northeastern portion of Georges Bank remains one of the mainstays of the New England fishing industry. During other parts of the year, the groundfish fishery was more dispersed, covering all of Georges Bank, as well as nearby Browns Bank, Seal Island Ground, and German Bank. Canada's assertion to the contrary notwithstanding [2], many vessels fished on the eastern portion of Georges Bank during the summer as well as the winter. Goode notes that many vessels fished in midsummer in 25 to 40 fathoms east of the main Georges Shoal, gradually working their way to deeper waters [3].

8. Together with the expansion of the fresh groundfish fishery beginning in the 1850s, a separate United States fishing fleet on Georges Bank evolved. By 1879, the Georges Bank fleet, based primarily in Gloucester, was distinct, with respect to its activity and its size, from the United States fleet that fished the more northerly banks. The "Georges Fleet", as the former was called, is documented in several historical works that previously have been deposited with the Court [4]. The "Georges Fleet" restricted its activities to Georges Bank and its vicinity, and did not fish

[1] Goode, *op. cit.*, Sec. V, Vol. I, p. 189. United States Memorial, Annex 18, Vol. II. As Goode states:

> "During [February, March, April] the favorite fishing ground is upon that portion of the Bank which lies east of the shoals ... this being called the 'winter fishing ground' ".

See also Goode, *op. cit.*, Sec. III, Vol. I, pp. 74 and 75, United States Counter-Memorial, Fig. 11 and Annex 21, Vol. IV, for maps depicting the Winter Fishing Ground.

(100)

[2] Canada asserts that, with the exception of the winter cod fishing on the eastern portion of the Bank, "at all other times of the year the fishing fleet concentrated in the western part of Georges Bank". Canadian Counter-Memorial, para. 327.

[3] Goode, *op. cit.*, Sec. V, Vol. I, p. 234. Deposited with Court in connection with United States Memorial pursuant to Article 50(2) of the Rules of Court.

[4] In particular, Goode divides the New England codfishery into four separate categories. Goode devotes an entire chapter to the Georges Bank codfishery [Sec. V, Vol. I, pp. 187-198, United States Memorial, Annex 18, Vol. II.] Canada has not submitted in evidence any document indicating the existence of a Canadian Georges Bank fleet in the 19th century.

off the Atlantic Coast of Canada or in the Gulf of St. Lawrence. As Goode reports:

> "In 1879 there were one hundred and four Gloucester vessels constantly employed in the Georges's fishery, many of them making over a dozen trips each, and forty-eight other Gloucester vessels followed the fishery a part of the season, the entire fleet aggregating one thousand trips and landing 23,144,000 pounds of codfish and 995,000 pounds of fresh halibut.
>
> In 1880 the Gloucester George's fleet aggregated one hundred and sixty-three vessels, one hundred and seven of them engaging exclusively in that fishery, while the others were employed for a part of the year in other fisheries. The fleet made one thousand four hundred and thirty trips, and landed 27,000,511 pounds of codfish and 1,125,450 pounds of fresh halibut.
>
> In 1881 the fleet was the same size as in 1880, the catch aggregating 22,510,000 pounds of cod and 1,087,400 pounds of fresh halibut [1]".

Over the last half of the 19th century and the early 20th century, this same United States "Georges Fleet" grew to form the foundation for the present United States Georges Bank groundfish fleet.

9. The Canadian Counter-Memorial asserts that, in the late 19th century, the New England fisheries began to decline [2]. Although a decline did occur, it was limited to the other major branch of the New England fishing industry, the salt cod fishery on the Grand Banks and Western Bank [3]. There was no such decline in the fresh fish fishery on Georges Bank. Although the salt-cod fishery at one time was similar in size and importance to the Georges Bank fresh fish fishery, it employed an entirely different fleet. This fleet consisted of larger boats, called "Bankers", and used different methods and equipment from those of the Georges Bank fleet. Moreover, as the Grand Banks and Western Bank fleet declined, fishermen from New England consolidated their efforts on Georges Bank and other fishing grounds closer to home. In 1888, the Grand Banks and Western Bank salt-cod fleet consisted of 399 vessels, while the Georges Bank and inshore fleets consisted of 284 vessels. During the first decade of the 20th century, the Georges Bank and inshore fleets grew

[1] Goode, *op.cit.*, Sec. V, Vol. I, p. 188; United States Memorial, Annex 18, Vol. II; *see also* H. A. Innis, *The Cod Fisheries: A History of an International Economy*, 1940, p. 330. Deposited with the Court in connection with the United States Memorial pursuant to Article 50(2) of the Rules of Court.

[2] Canadian Counter-Memorial, paras. 323-331.

[3] Goode, *op.cit.*, Sec. V, Vol. I, pp. 123-187.

to 372 vessels, while the fleet fishing the Grand Banks and Western Bank off Canada experienced a precipitous decline to 50 vessels [1].

10. The consolidation of United States fishing effort on Georges Bank continued over the first few decades of the 20th century. The introduction of the steam-powered trawler, as well as improvements in processing and overland transportation that expanded the markets for fresh fish, precipitated a major increase in the Georges Bank catch by United States fishermen *during the early 20th century* [2]. *In 1904, the year prior to the* introduction of the steam trawler, the United States catch from Georges Bank was a reported 23,888 metric tons [3]. By 1929, the United States catch had increased to 159,253 metric tons [4]. Although haddock was most sought during this period, other species found on Georges Bank, including cod, hake, mackerel, and pollock, continued to be of commercial importance. As Ruth Grant wrote in 1934, "Georges Bank was the most important [United States] fishing area, furnishing 42 percent of the fish landed by vessels over five tons [5]".

11. Between 1931 and 1935, the New England groundfish fishery on Georges Bank suffered its first major setback when the catches of haddock dropped markedly from the very high levels of the late 1920s [6]. As a result, the United States intensified its research into the fish stocks of Georges Bank [6]. By 1936, catches had returned to more normal levels. (101) Figure 12 of the United States Counter-Memorial reproduces maps of that period that show the sizes and location of United States cod and haddock catches in 1936, depicting extensive fishing activities of United States fishing vessels on the northeastern portion of Georges Bank. Groundfish landings in the United States from Georges Bank declined slightly during World War II, but rose to beyond prewar levels immediately following the war [7]. In the late 1940s, the increased awareness on the part of the United States of the importance of the stocks on Georges

[1] R. McFarland, *A History of the New England Fisheries*, 1911, pp. 281 and 282. Deposited with the Court in connection with the United States Memorial pursuant to Article 50(2) of the Rules of Court.United States fishermen withdrew from these northern waters partly in response to the increase in the market for fresh fish in the United States and partly in response to the long diplomatic controversy between the United States and Canada regarding the rights and privileges of United States vessels fishing in waters off Canada.

[2] United States Memorial, paras. 73-75; *see also* United States Counter-Memorial, Fig. 9. (98)

[3] United States Counter-Memorial, Annex 17, Vol. V.

[4] United States Counter-Memorial, Annex 17, Vol. V.

[5] R.F. Grant, *The Canadian Atlantic Fishery*, 1934, p. 120.

[6] United States Counter-Memorial, Annex 3, Vol. II, para. 9.

(98) [7] United States Counter-Memorial, Fig. 9.

Bank, first prompted by the decline of the haddock stocks in the early 1930s, led the United States to take the initiative in establishing the International Commission for the Northwest Atlantic Fisheries (ICNAF)[1].

12. During the 1950s, landings by United States fishermen from Georges Bank remained largely stable. Nevertheless, in response to the increasing threat of depletion of the stocks, and at the request of the United States, ICNAF began regulating the fisheries in the area. The first measure was the imposition of mesh-size regulations on the Subarea 5 haddock fishery in 1951. Subsequently, these regulations were expanded and refined so as to apply to other stocks (i.e., cod and flounder) and other subareas[2].

13. The 1960s brought the most severe changes that the Georges Bank fisheries had undergone in the more than one hundred years since their inception. The incursion of large foreign fleets into the area precipitated an unyielding threat of overfishing of the stocks. Between 1960 and 1965, the United States maintained its historic annual catch level on Georges Bank of approximately 100,000 metric tons[3]. By 1965, however, the total catch of other States on Georges Bank rose to a multiple of nearly six times that United States catch[4]. The effect of this dramatic escalation in fishing activity on Georges Bank was more pronounced for the United States than for other States fishing on Georges Bank. Unlike Canadian fishermen, United States fishermen lacked nearby alternate fishing grounds for the stocks of cod and haddock that they traditionally had fished on Georges Bank. When the combined United States and foreign catch reached its peak in the mid-1960s, these and other stocks that were important to United States fishermen had declined to dangerously low levels. During the late 1960s and early 1970s, United States initiatives within ICNAF resulted in tighter regulatory controls that helped to alleviate partially the overfishing problem[5]. Nevertheless, by the early 1970s, when most of these measures became effective, the Georges Bank stocks already had been damaged severely.

14. The Canadian Memorial and Counter-Memorial imply that catches during the period 1969 through 1978 are representative of the more recent catch levels of the Parties on the northeastern part of Georges

[1] For a detailed discussion of the United States role in the establishment of ICNAF, *see* United States Counter-Memorial, Annex 3, Vol. II, paras. 10-13.

[2] For a discussion of the application of ICNAF regulatory measures to Georges Bank, *see* United States Counter-Memorial, Annex 3, Vol. II, paras. 27-32, 43, and 45-62, and Annex 1, Vol. IA, Appendix A-I.

(98) [3] *See* United States Counter-Memorial, Fig. 9.

[4] United States Counter-Memorial, Annex 1, Vol. IA, Appendix A-I; Annex 3, Vol. II, paras. 49-62.

[5] United States Counter-Memorial, p. 55, Table A (1965 catches).

Bank. This is simply not the case. During the first half of the 1970s, not only did United States fishermen continue to endure the effects of overfishing by the foreign fleets, but they were most affected by the regulatory measures that were imposed by ICNAF to reverse these effects. These factors caused United States groundfish landings from Georges Bank to decline to levels far below those of previous or subsequent years.

15. Haddock catch levels provide the clearest example of this situation. Between 1950 and 1966, annual United States landings of haddock from Georges Bank had ranged between 36,000 and 52,000 metric tons. By 1968, when the overfishing of the early 1960s had taken its toll, the United States catch dropped to 24,000 metric tons. In 1969, ICNAF for the first time prohibited fishing for haddock on the eastern part of Georges Bank during the annual spawning season [1]. In 1970, the United States catch for the entire Bank fell to 8,000 metric tons [2]. In addition to closing areas to fishing, a quota eventually was set upon the combined total catch of haddock by all member States [3]. This overall quota was 12,000 metric tons, or approximately 28 per cent of the average yearly catch of the United States for the years 1950 through 1966. In 1971, at the request of the United States, ICNAF lowered the total catch quota for Georges Bank haddock to 6,000 metric tons for the 1972 fishing year [4]. At the 1973 Annual Meeting of ICNAF, pursuant to a United States proposal, the Subarea 5 haddock quota was set at zero. This zero quota on Georges Bank haddock remained in effect through 1976, the final year of United States participation in ICNAF [5]. In 1977 and 1978, the United States imposed haddock quotas of 6,200 metric tons and 8,000

[1] *ICNAF Statistical Bulletins*, 1968 and 1970. United States Memorial, Annex 47, Vol. III.

[2] *ICNAF Annual Proceedings*, 1969, Proceedings No. 16, Item 3, and Appendix II. Deposited with Court in connection with the United States Memorial pursuant to Article 50(2) of the Rules of Court.

[3] For a more detailed discussion of these United States initiatives as they affected Georges Bank, *see* United States Counter-Memorial, Annex 3, Vol. II, paras. 23-62.

[4] *ICNAF Proceedings*, 1971, Proceedings No. 13, Item 7 and Appendix I. United States Counter-Memorial, Annex 3, Vol. II, Table B-22.

[5] The incidental catch of haddock also was strictly regulated during this period. At the ICNAF Annual Meeting in 1975, the total incidental catch of all States was set at 6,000 metric tons; this total was then allocated among the member States as follows: United States—4,450 metric tons; Canada—1,200 metric tons; Spain—300 metric tons; and, all others—50 metric tons. *ICNAF Proceedings*, 1974-1975, p. 220, Item 10, iii. Deposited with the Court in connection with the United States Memorial pursuant to Article 50(2) of the Rules of Court.

metric tons [1]. Including as it does these years of strict regulatory control, the period from 1969 through 1978 can in no way be called representative of the historical activities of United States fishermen on Georges Bank.

16. Since 1978, United States groundfish landings from Georges Bank have continued to grow. They have increased 30 per cent in the period from 1978 through 1982 [2]. This growth in landings was made possible by the recovery of the stocks, and by a simultaneous increase in the size of the New England fleet, both of which have occurred since the extension of (201) fisheries jurisdiction to 200 nautical miles [3]. Figure 1 shows the extent to which the New England groundfish catch is concentrated on Georges Bank, particularly its northeastern portion.

SECTION 2. Swordfish Fishery

17. As Canada would appear to acknowledge, the swordfish fishery on Georges Bank was developed by New England fishermen during the 19th century [4]. Swordfishing vessels from New England normally would follow the fish along the outer edge of Georges Bank during the summer and fall months [5], as they moved in their annual migration from the Carribbean to the waters off the coast of Atlantic Canada. Vessels from Connecticut, Rhode Island, and Massachusetts engaged in this fishery as early as 1823, and, by 1879, there were 41 vessels employed in this

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[1] 42 *Federal Register* 29876 (10 June 1977); 43 *Federal Register* 28503 (30 June 1977). Deposited with the Court pursuant to Article 50(2) of the Rules of Court.

[2] These calculations are based upon NAFO SCS Doc. 83/IX/22 for 1982, and ICNAF *Statistical Bulletin*, Vol. 28, for 1978. Deposited with the Court in connection with the United States Memorial pursuant to Article 50(2) of the Rules of Court.

[3] The turnabout in the fortunes of the New England groundfish industry is inconsistent with Canadian assertions that the New England fishing industry is in "decline". [Canadian Counter-Memorial, para. 275.] Appendix A documents the increase in the size of the New England fleet since 1976. In fact, it is the Canadian groundfish industry that is currently in an economic "crisis". [Task Force on Atlantic Fisheries, *Navigating Troubled Waters* (the "Kirby Report"), Ministry of Supply and Services of Canada, 1982, p. 21. Deposited with the Court in connection with the United States Counter-Memorial pursuant to Article 50(2) of the Rules of Court.] Appendix B to this Annex contains recent newspaper reports of efforts underway by the federal and provincial governments of Canada to restore the groundfish industry to economic viability. Appendix C addresses Canadian arguments that their groundfish industry has lower costs than that of New England. [Canadian Counter-Memorial, paras. 276 and 277.]

[4] Canadian Counter-Memorial, Annexes, Vol. II, para. 60.

[5] Goode, *op.cit.*, Sec. V, Vol. I, p. 317. Deposited with the Court by the United States in connection with its Memorial pursuant to Article 50(2) of the Rules of Court.

fishery [1]. United States vessels have continued to fish for swordfish off the entire Atlantic coast of the United States and Canada, including on Georges Bank, until the present. In recent years, swordfish landings from Georges Bank have been almost exclusively by the United States. In 1982, the United States landed 701 metric tons of swordfish from Georges Bank, whereas Canada landed only one metric ton [2].

SECTION 3. The Scallop Fishery

18. Another dimension was added to the United States Georges Bank fishery when New England fishermen developed the offshore scallop fishery on Georges Bank in the 1930s [3]. This fishery expanded rapidly during the 1940s and 1950s, engaging vessels from Maine and from New Bedford, Massachusetts. The expansion of the scallop fishery largely was responsible for the development of New Bedford into an important modern fishing port [4].

19. The first Canadian scallop trip to Georges Bank, which took place some 15 years after the inception of the United States Georges Bank scallop fishery, was undertaken by Canadian fishermen who had learned of the fishery while working aboard United States fishing vessels [5]. It was not until the 1950s, however, that Canadian fishermen began sustained activity on the scallop beds of Georges Bank. Even then, Canada's scallop landings from Georges Bank were insignificant. Canada did not even report scallop landings from Georges Bank to ICNAF until 1954 [6]. In the late 1950s and early 1960s, Canadian scallop catches on Georges Bank,

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[1] Goode, *op.cit.*, Sec. V, Vol. I, p. 317. Deposited with the Court by the United States in connection with its Memorial pursuant to Article 50(2) of the Rules of Court.

[2] Landings of swordfish by Canada and the United States combined from NAFO Subarea 5Ze for the years 1978-1982 were 2,842 metric tons. Of this, the United States landed 2,660 metric tons, or 94 per cent. Canadian reliance upon Georges Bank as a source of swordfish since mercury contamination regulations were relaxed in 1979 [Canadian Counter-Memorial, Annexes, Vol. II, para. 185] has been quite small. Only 2.9 per cent of Canadian landings in the period 1979-1982 came from Subarea 5Ze. In 1982, only one metric ton was landed by Canadian vessels from Georges Bank. Calculations are based upon ICNAF and NAFO *Statistical Bulletins*, for 1978-1980; deposited with the Court by the United States pursuant to Article 50(2) of the Rules of Court; NAFO *Statistical Bulletin* for 1981; and upon NAFO SCS Doc. 83/IX/22, for 1982.

[3] United States Memorial, para. 82; United States Counter-Memorial, paras. 72 and 73; and Annex 7, Vol. IV, paras. 24-27.

[4] United States Memorial, para. 82; United States Counter-Memorial, paras. 72 and 73; and Annex 7, Vol. IV, paras. 24-27.

[5] N. Bourne, *Scallops and the Offshore Fishery of the Maritimes*, 1964, p. 21. Deposited by Canada with its Memorial pursuant to Article 50(2) of the Rules of Court.

[6] United States Counter-Memorial, paras. 63-74.

especially on the northern edge and the northeast peak, rose dramatically [1]. The scallop fleets of both nations were able to fish together on the northern edge and northeast peak until around 1965 as a result of an unusual abundance of scallops entering the fishery in 1959 [2]. In the mid-1960s, vessels from both fleets moved south to harvest an unusually large abundance of scallops on the mid-Atlantic beds. By 1968, the Canadian vessels that had moved south rejoined the remainder of the Canadian fleet on Georges Bank, although the abundance and average size of scallops there had fallen dramatically [3]. Some United States scallopers continued to fish the mid-Atlantic beds, while others converted to groundfishing, and many others went out of business. Only a few continued to fish the depleted resource on eastern Georges Bank [4].

20. Beginning in the late 1970s, and continuing to the present, United States scallop vessels have increased substantially their landings from Georges Bank, in particular from the northern edge and the northeast (66) peak [5]. Figure 26 of the Canadian Counter-Memorial shows the United

(99) [1] United States Counter-Memorial, Fig. 10.

[2] J.F. Caddy and E.I. Lord, "High Price of Scallop Landings Conceals Decline in Offshore Stocks", Fisheries of Canada, Dept. of the Environment, May-June 1971, Vol. 23, No. 5, p. 4. United States Counter-Memorial, Annex 19, Vol. V.

[3] United States Counter-Memorial, para. 74. Contrary to Canadian assertions [Canadian Counter-Memorial, para. 258], the mid-Atlantic beds were neither "overfished by the United States", nor did they represent "a major traditional source of supply in the United States". The mid-Atlantic beds were fished by *both* States when abundances were unusually high in the mid-1960s, and continue to be fished today, when their productivity has returned to more normal levels, by United States vessels based in the mid-Atlantic states. The "major traditional source of supply in the United States" has been and remains Georges Bank, especially the most productive beds found on the northern edge and the northeast peak of the Bank.

[4] The fishing practices of the Canadian fleet of some 70 large vessels on the eastern Georges Bank beds in the late 1960s and early 1970s led scientists to warn that the resource was being damaged. [J.F. Caddy and E.I. Lord, "High Price of Scallops Landings Conceals Decline in Offshore Stocks", in *Fisheries of Canada*, Dept. of the Environment, May-June 1971, Vol. 23, No. 5, United States Counter-Memorial, Annex 19, Vol. V.] Because of the desire to maintain employment in the scallop fleet when other fisheries were in a serious decline [United States Counter-Memorial, Annex 4, Vol. III, Appendix D, para. 4], Canada refused to accept conservation measures adopted by ICNAF that Canada itself had earlier proposed. [ICNAF, Proceedings of the 22nd Annual Meeting, No. 7, App. IV.] Canada has been careful in describing ICNAF scallop conservation efforts, stating that scallops "were never regulated by ICNAF". [Canadian Counter-Memorial, para. 430.] This statement is technically correct, but obscures the fact that it was Canada that prevented such regulations from taking effect in 1972.

[5] Canada calls this return of the United States fleet to its traditional grounds "transitory and opportunistic". [Canadian Counter-Memorial, para. 259.] These terms more accurately describe the sudden incursion of the Canadian scallop fleet into the fully utilized scallop fishery on Georges Bank in the early 1960s. [*See* United States Counter-Memorial, para. 74.]

States scallop catch on Georges Bank only during the unrepresentative (202) period of 1969 through 1978. Figure 2, however, shows the extent to which the United States scallop catch on Georges Bank was concentrated in the northeastern portion of the Bank, both in the early stages of the Canadian fishery and in 1981, following the return of the United States fleet to its traditional grounds.

SECTION 4. The Lobster Fishery

21. The most recent fishery that has been developed on Georges Bank is the offshore lobster fishery, located principally along the seaward slope of Georges Bank. This fishery was first developed by United States fishermen in the 1960s [1]. United States fishermen today land 95 per cent of the lobster taken from Georges Bank, whereas Canadian fishermen land five per cent [2].

SECTION 5. Conclusion

22. The United States discovered and developed all the major fisheries on Georges Bank. By contrast, Canada has submitted no evidence that it participated in the discovery or early development of any of the principal fisheries. With the exception of the halibut fishery, all the United States fisheries have continued to prosper and to grow to the present day.

23. With respect to the groundfish fishery, the evidence that Canada has submitted establishes only that, by the latter part of the 19th century, Georges Bank was visited occasionally by Canadian fishermen [3]. During that same period, the United States already had developed an entire fleet specially adapted for and devoted to the Georges Bank groundfish fishery. Today, as then, the United States groundfish fishery on Georges Bank is *far larger than that of Canada* [4].

24. As regards swordfish, the United States developed the swordfish fishery on Georges Bank. The United States swordfish fishery on Georges Bank remains the predominant one today.

25. Concerning scallops, it was not until 1954 that Canadian scallop fishermen began significant fishing activities on Georges Bank. Although

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[1] United States Counter-Memorial, Annex 7, Vol. IV, para. 29.

[2] In 1982, United States landings of lobster from Georges Bank were 3,636 metric tons, whereas Canada landed only 175 metric tons. [NAFO SCS Doc. 83/IX/22.]

[3] *See* Annex 29 to this Reply.

[4] In 1982, total United States groundfish landings from Georges Bank were 94,110 metric tons, whereas Canadian landings were 29,399 metric tons. [NAFO SCS (98) Doc. 83/IX/22.] United States Counter-Memorial, Fig. 9.

Canada harvested more scallops from Georges Bank than did the United States during the late 1960s and early 1970s, in recent years the United States has begun to reassert its historical dominace in this fishery [1].

26. Finally, the lobster fishery located along the seaward slope of Georges Bank also was developed by United States fishermen in the 1960s. This fishery is still conducted principally by United States fishermen.

27. As both the historical and recent data make clear, the United States historically has dominated, and today continues to dominate, the fisheries of Georges Bank. Canada's activities on Georges Bank are of far more recent origin and smaller extent than those of the United States.

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(99) [1] United States Counter-Memorial, Fig. 10. In 1982, United States scallop landings (converted to meat weight) from Subdivision 5Ze totalled 6,526 metric tons, whereas Canada landed 4,307 metric tons. [NAFO SCS Doc. 83/IX/22.]

Appendix A to Annex 28

NUMBER OF UNITED STATES FISHING VESSELS BY MAJOR PORT, TONNAGE CLASS, AND YEAR (1965-1981): MAINE, NEW HAMPSHIRE, MASSACHUSETTS, RHODE ISLAND, NEW JERSEY, MARYLAND AND VIRGINIA

(*Source:* Computer data base maintained by the National Marine Fisheries Service, United States Dept. of Commerce.)

[Not reproduced]

Appendix B to Annex 28

RECENT NEWSPAPER ARTICLES CONCERNING THE CONDITION OF THE CANADIAN ATLANTIC FISHING INDUSTRY, AND STEPS BEING TAKEN BY THE NATIONAL AND PROVINCIAL GOVERNMENTS TO ASSIST THAT INDUSTRY:

C. NORWOOD, "QUOTA REMAINS THE ISSUE FOR SMALL DRAGGERS", *THE SOU'WESTER*, 1 SEPTEMBER 1983, P. 2

[UNATTRIBUTED], "RECENT CLOSURES HEIGHTENS UNCERTAINTY", *THE SOU'WESTER*, 1 SEPTEMBER 1983, P. 2

[UNATTRIBUTED], "FISHERY: PATIENCE NEEDED", HALIFAX *CHRONICLE-HERALD*, 30 SEPTEMBER 1983

[UNATTRIBUTED], "EMPHASIS NOW SHIFTING TO NOVA SCOTIA OFFSHORE FISHERY RESTRUCTURING", *THE SOU'WESTER*, 1 OCTOBER 1983, P. 5

W. TAYLOR, "N.S. FISHERY RESTRUCTURED", HALIFAX *CHRONICLE-HERALD*, 1 OCTOBER 1983

[UNATTRIBUTED], "OTTAWA WOULD CONTROL NATSEA", HALIFAX *MAIL-STAR*, 18 OCTOBER 1983

F. MCMAHON, "SADNESS, FRUSTRATION IN THE FISHING INDUSTRY", HALIFAX *CHRONICLE-HERALD*, 27 OCTOBER 1983, P. 7

F. MCMAHON, "NEWFOUNDLAND-TYPE DEAL FEARED", HALIFAX *CHRONICLE-HERALD*, 31 OCTOBER 1983

[UNATTRIBUTED], "FISHING FOR ANSWERS", HALIFAX *CHRONICLE-HERALD*, 2 NOVEMBER 1983

H. T. SHEA, "FISHERIES: N.S. MAKES COUNTER-PROPOSALS", HALIFAX *CHRONICLE-HERALD*, 14 NOVEMBER 1983

[UNATTRIBUTED], "RESTRUCTURING BILL INTRODUCED", *THE SOU'WESTER*, 15 NOVEMBER 1983, P. 4

[Not reproduced]

Appendix C to Annex 28

THE CANADIAN "LOWER COST" ARGUMENT

1. Canada asserts that "[w]ith the higher paid opportunities open to labour in eastern Massachusetts, and particularly in Boston, this area could be expected to experience difficulty in maintaining extensive fishing operations in competition with regions such as southwest Nova Scotia that do not have equivalent alternative economic opportunities [1]". As a result of lower labor costs, Canada argues, southwest Nova Scotia is the "rational economic base [1]", as compared with eastern Massachusetts, for the exploitation of the northeastern portion of Georges Bank.

2. Canada has provided no evidence to support its contention that employment opportunities *of the type relevant for fishermen* will be greater in New England than in Nova Scotia. On the contrary, it is in Nova Scotia that substantial growth in employment related to offshore petroleum and natural gas is expected in the coming years, much of which will involve skills relevant for fishing industry employees [2].

3. More importantly, the calculation of relative cost between two industries, and thus the determination of which is the more economically efficient, includes far more than a simple comparison of labor costs. The principal issues that must be addressed in calculating relative costs between two industries are:

a. If the two industries studied do not produce exactly the same products, how is output to be measured?

b. If costs are measured by adding expenditures on various inputs, how is the cost of the services provided by capital equipment to be determined? Are government subsidies for capital investment and equipment depreciation and maintenance accounted for properly? How can consistency be maintained in comparisons between industries and States?

c. If costs are measured by deducting extraordinary profits from revenues, how are ordinary profits (which equal cost of services of owned capital equipment) determined?

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[1] Canadian Counter-Memorial, para. 276.

[2] United States Counter-Memorial, Annex 4, Vol. III, para. 64.

d. If the two industries are subject to different tax structures and programs, how should the effects of these programs be treated in calculating costs?

4. With regard to the first issue, to the extent that the two industries both deliver their products (i.e., processed fish) to the United States market, the prices prevailing in that market provide a means for comparing the products. Hence, the most appropriate measure of output for purposes of comparing the industries is the value in United States dollars of industry products. It must be noted, however, that, if the two industries produce different combinations of products (as between scallops, fresh fish, and frozen fish), calculations based upon value in United States dollars of total product may obscure variations in relative costs for different sub-products.

5. With respect to the measurement of costs, neither Canadian nor United States regional industrial statistics provide a good basis for determining the value of capital invested in the industries or service cost of capital. Consequently, a major critical component of costs is poorly determined. Differences in non-capital costs in the two industries are likely to reflect in large part differences in the degree of capitalization of the industries. It would be erroneous to conclude that the industry with lower operating (non-capital) costs has lower overall costs, since the lower operating costs may be achieved by greater capitalization, implying higher capital service costs. Further, input price differences are an unreliable indicator of overall costs differences, inasmuch as the productivity of the inputs may not be the same. For example, fishermen or processing workers may differ in skill level. When industry products differ in mix or quality, input prices are particularly unreliable indicators of the difference in overall costs.

6. Concerning taxes and subsidies, there is no absolute rule with respect to whether these factors should be included in the computation of costs. Some components of taxes are in effect fees for services used by the industries, such as marine research, harbor maintenance, and the transportation system, and should be treated as costs. Other taxes and subsidies, the purpose of which is to generate government revenue or support operations of the industry, provide penalities or rewards, which make measured relative costs an unreliable indicator of the relative economic efficiency of the industries. Therefore, the net effect of such taxes and subsidies should be removed from costs. Furthermore, the effects of subsidies should be removed even if the subsidies do not appear directly in industry accounts; e.g., seasonal unemployment insurance that makes workers available at lower wages than would otherwise be required to attract them to the industry, or boatyard subsidies that make boats available at reduced cost, should be readjusted for by computing costs as they would be without these programs.

7. In light of the complexities involved and the lack of precise data concerning several of the important variables, the United States has not attempted to calculate the relative efficiencies of the New England and Nova Scotia industries. Nor, apparently for much the same reasons, has Canada, although it is Canada that has raised this argument. Preliminary estimates made by the United States indicate, however, that the Canadian industry has higher costs than the United States industry.

8. Canada also implies that its purported cost advantage and the membership of both Canada and the United States in the General Agreement on Tariffs and Trade (G.A.T.T.) and the Organization for Economic Cooperation and Development (O.E.C.D.) combine to support the Canadian boundary claim[1]. In fact, the G.A.T.T. is intended to promote trade among States in order to achieve efficient specialization within their economies. In no respect does it address jurisdiction over resources, nor does it suggest that resources that otherwise would fall within the jurisdiction of one State should be awarded to another in order to promote economic efficiency. The O.E.C.D. is a forum for economic policy coordination among western industrialized States and provides economic research and statistical services. Like the G.A.T.T., it has no bearing upon the delimitation of boundaries or the allocation of resources.

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[1] Canadian Counter-Memorial, para. 277.

Annex 29

A Critique of the Evidence in the Canadian Counter-Memorial Regarding Canada's Historical Fishing Activities on Georges Bank

INTRODUCTION

1. The Canadian Counter-Memorial asserts that Canadian fishermen *have maintained a significant level of activity on Georges Bank dating* from the mid-19th century. Canada's newly discovered historic fisheries on Georges Bank are at odds with all of the authoritative histories of the fisheries of the Northwest Atlantic Ocean and are inconsistent with information that Canada provided to the International Commission for the Northwest Atlantic Fisheries (ICNAF) in 1952 and 1953 [1].

2. The United States and Canada have submitted to the Court several comprehensive historical texts, by both United States and Canadian authors, who treat in great detail the development both of the Georges Bank fisheries and of the Nova Scotia and New England fishing industries [2]. These works discuss the development of the United States fisheries on Georges Bank during the 19th and early 20th centuries. Similarly, these works discuss the development of Canada's fisheries on the inshore grounds of Nova Scotia, on the offshore banks of the Scotian Shelf, in the Gulf of St. Lawrence, and on the Grand Banks of Newfoundland. None of these works includes more than a passing reference to any Canadian fishing on Georges Bank. Typical of such references is that of Thomas Knight, in *Shore and Deep Sea Fisheries of Nova Scotia*, which merely includes Georges Bank within a list of fishing grounds of the Northwest Atlantic Ocean [3]. The leading Canadian

[1] *ICNAF Statistical Bulletin*, 1952, Part 1, pp. 10-25 [hereinafter *ICNAF Stat. Bull.*], United States Memorial, Annex 46, Vol. III; *ICNAF Stat. Bull.*, 1953, Part 1, pp. 10, 11, 16, and 17. United States Memorial, Annex 47, Vol. III.

[2] S.E. Morison, *A Maritime History of Massachusetts*, 1974; H.A. Innis, *The Cod Fisheries: A History of an International Economy*, 1940; G.B. Goode, *The Fisheries and Fishing Industries of the United States*, 1887; T.F. Knight, *Shore and Deep Sea Fisheries of Nova Scotia;* R.F. Grant, *The Canadian Atlantic Fishery*, 1934; E.A. Ackerman, *New England's Fishing Industry*, 1941; R. McFarland, *A History of the New England Fisheries*, 1911.

[3] Knight, *Shore and Deep Sea Fisheries of Nova Scotia*, pp. 2 and 4. Canadian Counter-Memorial, Annexes, Vol. IV, Annex 63.

fishing journal in the first half of the 20th century is similarly devoid of references to Canadian fishing on Georges Bank. Frederick William Wallace, editor of the *Canadian Fisherman*, published a comprehensive article in 1945 entitled "Thirty Years Progress in Canada's Fishing Industry 1914-1944[1]". At no point in that article does Mr. Wallace mention a Canadian fishery on Georges Bank. All of these works have been deposited by either the United States or Canada in accordance with the Rules of Court. It is unlikely that all of these historians could mistakenly have overlooked any significant Canadian fishery on Georges Bank.

3. Part I of the ICNAF *Statistical Bulletin* for 1952 contains a report entitled "Long Term Development of Fishing in the Convention Area". This report, as noted in the United States Memorial[2], describes the development of the fisheries in the ICNAF Convention Area on the part of each ICNAF member State. It is noteworthy, even conspicuous, that the description of the development of Canada's fisheries, which was based upon information submitted to ICNAF by Canada, contains no references to Canadian landings in Subarea 5 (the Georges Bank-New England Subarea). These facts are reaffirmed by Part 4 of the ICNAF *Second Annual Report*, which includes Canadian landings statistics from Subareas 3 and 4 dating from 1869, but no Canadian landings from Subarea 5[3]. The ICNAF *Statistical Bulletin* for 1953 features a similar report on the long-term development of fishing in the Convention Area. As in the 1952 report, there is no mention of Canadian landings on Georges Bank during the years 1910 through 1950[4].

4. The detailed landing statistics for the fishing year 1952, contained in Part 2 of the 1952 ICNAF *Statistical Bulletin*, indicate that Canada did not fish in Subarea 5 during 1952[5]. Canada did report landings for 1953 in Subdivision 5y of Subarea 5, which includes the Gulf of Maine, but

[1] *See* discussion of Wallace's article at United States Counter-Memorial, para. 66; pertinent parts of the article are found at United States Counter-Memorial, Annex 7, Vol. IV, paras. 11-14, and Appendix A.

[2] United States Memorial, para. 79, and Annex 46, Vol. III.

[3] ICNAF, *Second Annual Report*, 1951-52, United States Counter-Memorial, Annex 16, Vol. V.

[4] *ICNAF Stat. Bull.*, 1952, pp. 10-12, United States Memorial, Annex 46, Vol. III; and *ICNAF Stat. Bull.*, 1953, pp. 10 and 11, United States Memorial, Annex 47, Vol. III.

[5] *ICNAF Stat. Bull.*, 1952, Part 2, p. 27. United States Memorial, Annex 46, Vol. III.

only the United States reported landings from Georges Bank [1]. In this regard, the 1953 *Statistical Bulletin* notes that all landings for Subarea 5 were known and accounted for with respect to the fishing year 1953 [2]. Canada did not report to ICNAF any landings from Georges Bank until 1954 [3].

5. The absence of any reference to Canadian activity on Georges Bank before 1954 in either the ICNAF reports or the authoritative histories supports the statement of Dr. Wilbert Chapman, the United States representative at the 1949 ICNAF negotiating conference, that the Georges Bank fishery was at that time, and historically had been, "almost exclusively" a United States fishery [4].

6. The "history" portrayed in the Canadian Counter-Memorial and in Volume II of the Annexes thereto ignores both the sources cited by the United States Memorial and the information that Canada submitted to ICNAF in the early 1950s. Canada attempts to establish, on the basis of isolated events and conjecture, a significant historical Canadian fishery on Georges Bank prior to 1950. Volume II of the Annexes to the Canadian Counter-Memorial incorporates the results of an extraordinary effort to collect any trace of an express or implied reference to Canadian activity on Georges Bank prior to 1950. The Canadian Annex weaves unrelated newspaper articles, historical references to Georges Bank, anecdotal references to Canadian fishermen and vessels, and selective summaries of statements apparently made by Canadian fishermen. Although this Annex describes in great detail certain fishing methods, individual fishing vessels, and the legacy of fishing in many Nova Scotia families, it fails to take the necessary step of comparing Canadian activity on Georges Bank to such activity elsewhere in the North Atlantic and to the activities of United States fishermen on Georges Bank during the pertinent period. Rather, Canada's account implies that Canadian fishermen actively

[1] *ICNAF Stat. Bull.*, 1953, p. 21. United States Memorial, Annex 47, Vol. III. Of the total landings for all of Subarea 5 in 1953, United States landings were 155,239.5 metric tons, whereas Canadian landings were only 76.4 metric tons, or about 0.05 per cent of United States landings. Moreover, Canada's reported landings were all from Subdivision 5Y. Subdivision 5Y includes the Gulf of Maine, but it does not include Georges Bank. For a depiction of the subdivisions of Subarea 5, *see* United States Counter-Memorial, Annex 3, Vol. II, Figs. 2 and 3.

[2] *ICNAF Stat. Bull.*, 1953, p. 9. Deposited with the Court in connection with the United States Memorial pursuant to Article 50(2) of the Rules of Court.

[3] United States Memorial, para. 80.

[4] For the full text of Dr. Chapman's statement, *see* International Northwest Atlantic Fisheries Conference, Washington, D.C., 26 Jan. 1949, DOC/5, Minutes of the Second Session, 27 Jan. 1949; United States Counter-Memorial, Annex 3, Vol. II, p. 5, n. 1, and Canadian Memorial, Annexes, Vol. II, Annex 12, I, pp. 266-273.

pursued a fishery on Georges Bank, by means of references to isolated reports of individual Canadian vessels fishing on Georges Bank. For example, in reference to the period from 1910 to 1945, the Canadian historical Annex describes the activities of several fishing vessels that were reported to have fished on Georges Bank at selected intervals during the period. These vessels are linked to Georges Bank by a compilation of cross references to a few scattered newspaper articles and statements by Canadian fishermen. The references identify a total of some 85 vessels for the entire period. At most, the evidence indicates that the vessels occasionally may have visited Georges Bank during some part of the 35-year period.

7. In brief, Canada's historical account demonstrates nothing more than that, prior to 1954, some Canadian fishermen occasionally visited Georges Bank, a fact that the United States never had denied. The Canadian account is in no way inconsistent with the United States characterization of its own fisheries on Georges Bank as "almost exclusive" prior to the 1950s.

SECTION 1. The Purported Nineteenth Century Canadian Fisheries on Georges Bank

8. The Canadian Counter-Memorial refers to "clear evidence" that Canadian fishing vessels "frequented" Georges Bank during the 19th century, and asserts that the "clarity" and "probative value" of that evidence cannot be doubted [1]. A review of this evidence, however, reveals that it is hardly "clear"; on the contrary, it is at best attenuated and ambiguous, even when considered in a light most favorable to Canada. Specifically, Canada relies upon references to Georges Bank in two works by Thomas Knight, and the testimony of a witness before the Halifax Commission, and in isolated references in a few newspaper articles [2].

9. In its Counter-Memorial, the United States discussed the significance of references to Georges Bank by Thomas Knight [3]. These works contain an extensive review of the fishing industry of Nova Scotia in the late 1860s. The references to Georges Bank, which appear in the opening pages of each of Knight's works, are not specific discussions of a Canadian fishery on the Bank, as Canada implies. Rather, Georges Bank is

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[1] Canadian Counter-Memorial, para. 340, and notes thereto.

[2] Canadian Counter-Memorial, paras. 339 and 340.

[3] United States Counter-Memorial, Annex 7, Vol. IV, paras. 5-7. Knight produced two works: *Shore and Deep Sea Fisheries of Nova Scotia* and *Report on the Fisheries of Nova Scotia*. The second work is merely a summary of the first and longer one. The references to Georges Bank in the early pages of each are almost identical. Both works have been deposited by Canada pursuant to Article 50(2) of the Rules of Court.

mentioned in a comprehensive list of the various fishing grounds in the Northwest Atlantic Ocean. Furthermore, no mention whatsoever is made of Georges Bank in a detailed analysis by Knight of the Nova Scotia fishing industry, which describes the fishing grounds frequented by vessels from each county of Nova Scotia [1].

10. The other principal source upon which Canada relies to establish that Canadian fishermen regularly fished on Georges Bank during the 19th century is the testimony of a Canadian witness before the Halifax Commission [2]. As was noted in the United States Memorial, the Halifax Commission did not address specifically the fishing activities of United States and Canadian fishermen on Georges Bank [3]. The witness, a Canadian fisherman, described the extensive United States fisheries on the offshore banks and his own career aboard United States vessels. In response to a question, he stated that he had seen a Western fleet (vessels from the western part of Nova Scotia) using trawl lines on Georges Bank. The witness added, however, that he doubted the need for Canadians to fish in American waters, because of the abundance of mackerel fishing in the inshore waters of Nova Scotia. He also recounted that, to his knowledge, the best cod fishing was within 15 or 20 miles of Cape Sable [4].

11. The only other evidence submitted by Canada that purports to relate to 19th century Canadian fishing activity on Georges Bank consists of newspaper and magazine articles. In many instances, however, they bear no relationship to fishing on Georges Bank. For example, the Canadian Counter-Memorial states:

> ". . . in Pubnico alone—one of the closest ports to eastern Georges Bank—more than 60 vessels were making week-long fishing trips to the banks in 1883 [5]".

The statement implies that 60 vessels from Pubnico were fishing regularly on Georges Bank in 1883. The document proffered in support of this statement is a "Letter to the Editor" of the *Yarmouth Herald* of 10 March 1881 [6]. This letter, however, is in no respect related to Canadian fishing on Georges Bank. The letter instead expresses support for a

[1] Knight, *Shore and Deep Sea Fisheries of Nova Scotia*, pp. 5-21.

[2] Canadian Counter-Memorial, para. 339, and Annexes, Vol. II, paras. 19 and 20.

[3] United States Memorial, para. 72.

[4] *Documents and Proceedings of the Halifax Commission of 1877*, United States House of Representatives, 45th Congress, 2d Session, Executive Doc. No. 89, Testimony of John Nicholson, British (Canadian), Witness No. 22, Vol. I, pp. 643-648. Deposited by Canada pursuant to Article 50(2) of the Rules of Court.

[5] Canadian Counter-Memorial, para. 338. [Citation omitted.]

[6] The citation in the Canadian Counter-Memorial for this statement leads the reader to a similar statement at Annex II thereto, para. 18, and, in turn, to a "Letter to the Editor" of the *Yarmouth Herald*, dated 10 Mar. 1881, p. 2, at Annexes, Vol. IV, Annex 64, p. 392, of the Canadian Counter-Memorial.

petition for the erection of a lighthouse at the entrance to the harbor of Pubnico, and notes that some 60 Canadian vessels and many American vessels called regularly at Pubnico [1].

12. At other points in its description of its 19th century fishing activities, Canada implies that, in view of the proximity of Georges Bank to certain Nova Scotia fishing communities, vessels from those ports must have fished on Georges Bank [2]. As was demonstrated in the United States Counter-Memorial [3] with respect to similar suggestions raised in the Canadian Memorial [4], such unwarranted assumptions are inferior substitutes for specific, major historical discussions or statistics relating to a Canadian fishery on Georges Bank, neither of which Canada has produced.

SECTION 2. The Purported Canadian Fisheries During the Period 1910 through 1945

13. The evidence submitted by Canada to support its version of Canadian fishing activities during the early 20th century is no more persuasive than that discussed in the preceding section. This evidence consists of a collection of newspaper and magazine articles, colorful anecdotal accounts of fishing by Canadian fishermen, and occasional references to official publications.

14. From these attenuated sources, Canada has produced several accounts of individual fishing trips to Georges Bank. Canada thereby implies that these isolated and unrelated activities are representive of much more extensive fishing activity on the part of Canada. The recourse to this recitation of isolated events merely confirms that there is no direct evidence of a significant Canadian fishery on Georges Bank. Even were all the evidence presented by Canada regarding Canadian activity in the early 20th century to be accepted as accurate, it would demonstrate nothing more than seasonal and sporadic fishing prior to the 1950s, generally by individual Canadian vessels.

15. Colorful tales of life "before the mast", often accompanied by a photograph of a Nova Scotia fishing vessel, comprise a great deal of the historical presentation in the Canadian Counter-Memorial. Accounts of the activities of these vessels are drawn from newspaper articles and

[1] "Letter to the Editor" of the *Yarmouth Herald*, dated 10 Mar. 1881, Canadian Counter-Memorial, Annexes, Vol. IV, Annex 64.

[2] Canadian Counter-Memorial, Annexes, Vol. II, paras. 22 and 24.

[3] United States Counter-Memorial, Annex 7, Vol. IV, para. 8.

[4] Canadian Memorial, para. 182.

occasionally from the mention of the vessel in one or more of the so-called Statutory Declarations deposited by Canada. Once again, it is implied that many of these vessels conducted extensive fishing operations on Georges Bank.

16. Among the fishing vessels that worked out of Yarmouth, Nova Scotia, during the 1920s, Canada has drawn attention to the schooner *Grace and Ruby* and its exploits on Georges Bank [1]. The United States does not deny that the *Grace and Ruby* frequented the waters off of New England during that period. There is, however, some question as to the type of activity in which the vessel engaged. In February of 1922, the same *Grace and Ruby* was seized by the United States Coast Guard for illegally smuggling liquor into Gloucester, Massachusetts [2]. At the time of the seizure, the vessel was under the command of one of three captains mentioned by Canada [3].

17. Canada has submitted 65 "Statutory Declarations" by fishermen from southwest Nova Scotia to support the proposition that Canadian fishermen fished extensively on Georges Bank during the period from 1910 through 1945 [4]. These documents establish at most only the occasional presence of Canadian fishing vessels on Georges Bank [5].

18. Canada has submitted a number of articles from newspapers and other periodicals to support the proposition that Canadian vessels frequented Georges Bank during the first half of the 20th century. As with

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[1] Canadian Counter-Memorial, Annexes, Vol. II, paras. 41-45.

[2] 283 Fed. 475 (1922). Appendix A. The outcome of the seizure of the *Grace and Ruby* is a landmark case in international law regarding jurisdiction over vessels beyond the territorial sea. For a discussion of the case, *see* P.C. Jessup, *The Law of Territorial Waters and Maritime Jurisdiction*, 1927, pp. 242-247. Appendix B.

[3] D. Crouse, *Winds of Change*, [undated], pp. 9 and 10. Deposited by Canada pursuant to Article 50(2) of the Rules of Court. *See also* Jessup, *op. cit.*, pp. 279-315 (Chapter VI, The Liquor Treaties). It is impossible to determine the number of the Canadian fishing vessels reported by Canada to have fished on Georges Bank during the 1920s (the era of national prohibition in the United States) that were illegally smuggling liquor. Nevertheless, the evidence is clear that such smuggling was an important enterprise for many Canadian fishermen during this period.

[4] The United States is unaware of the Canadian statutory provision under which these documents were produced.

[5] The United States objects to these Statutory Declarations for the following reasons: (1) they are only summaries of interviews conducted by representatives of Canada for the purpose of this proceeding, and subsequently sworn to by the person who gave the interview, often many months after the interview; (2) the United States has had no opportunity to examine the individuals who were interviewed; and, (3) the interviews contain accounts of activities or events not personally observed by the individuals interviewed.

the materials discussed above, these articles, albeit interesting depictions of the Canadian fishing industry, establish no more than an occasional visit by Canadian vessels to Georges Bank. Moreover, many of the articles do not even pertain to Canadian activity on Georges Bank, but instead are concerned with such topics as wrecks, transfers of vessels, community news, and the fishing industry in general. There are a few articles that report landings by Canadian vessels from Georges Bank. It is noteworthy that, except for these reports, the source of fish landed normally is not reported in the Canadian newspaper articles. Rather than establishing that Canadian vessels regularly fished on Georges Bank, these articles suggest that Canadian fishing on Georges Bank was so rare as to be newsworthy.

19. The Canadian Counter-Memorial attempts to demonstrate that a significant Canadian fishery also existed on Georges Bank in the late 1920s by reference to a Royal Commission of Inquiry that "found" Georges Bank to be among the "principal fishing grounds" used by vessels from the Atlantic ports of Canada [1]. This so-called "finding" is in fact another comprehensive reference to the fishing grounds of the Northwest Atlantic Ocean similar to that contained in the work of Thomas Knight. This is the only specific reference to a Canadian fishery on Georges Bank appearing in the entire report. Furthermore, in describing the aggregate level of Canadian activity on the fishing banks listed, the report specifically excludes Georges Bank from its calculations [2]. The report does acknowledge, however, that Georges Bank was "the most important and largest fishing ground near the coast of the United States [3]".

20. Canada also finds significant the fact that, in 1919, official United States statistics reported that Canadian vessels landed 454 metric tons of fish from Georges Bank in United States ports [4]. Nevertheless, the same statistics show that the United States landed some 23,000 metric tons of fish from Georges Bank during the same year — an approximate multiple of 50 over the Canadian catch.

21. These relative levels of United States and Canadian catches are hardly surprising, inasmuch as, prior to the beginning of the scallop fishery, Georges Bank was of only minor interest to Canadian fishermen. During the first half of the 20th century, Canadians fished primarily to the north and east of Georges Bank, on the fishing grounds off Nova

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[1] Canadian Counter-Memorial, para. 344.

[2] *Report of the Royal Commission Investigating the Fisheries of the Maritime Provinces and Magdalen Islands* [hereinafter *Royal Commission*], 1928, p. 8. Deposited by Canada pursuant to Article 50(2) of the Rules of Court.

[3] *Royal Commission*, p. 8.

[4] Canadian Counter-Memorial, para. 341.

Scotia, off Newfoundland, and in the Gulf of St. Lawrence. The United States has discussed these other Canadian fisheries in some detail in its Memorial and Counter-Memorial [1]. As the Canadian historian Ruth F. Grant wrote in 1934:

> "The most important Canadian cod fishing grounds are the Grand Banks of Newfoundland, the Gulf of St. Lawrence, and the inshore waters and fishing banks adjacent to the coast of Nova Scotia.
>
> Until recent years the cod was the most valuable fish taken by Canadian Atlantic fishermen, but recently it has been exceeded in value by the lobster [2]".

Grant subsequently points out that, in the counties of far southwest Nova Scotia, lobster caught in inshore waters accounted for a higher dollar value of the landings than did groundfish [3].

22. The absence of any significant Canadian interest in Georges Bank prior to the 1950s is supported by all of the available evidence. There is no question that Canadian fishermen were aware of and occasionally visited Georges Bank during the late 19th and early 20th centuries. Nevertheless, Canada did not have any fishery on Georges Bank during that period that was in any measure comparable to the United States fisheries.

23. The Canadian Counter-Memorial portrays "deep historical roots" for the contemporary Canadian fishing on Georges Bank [4] that have gone unnoticed by such eminent chroniclers of the Northwest Atlantic fisheries as George Brown Goode, Ruth F. Grant, Raymond McFarland, Samuel Eliot Morison, Harold A. Innis, and E.A. Ackerman, as well as by Frederick William Wallace, editor of *The Canadian Fisherman*, and the

[1] United States Memorial, paras. 72-78; United States Counter-Memorial, paras. 58-66.

[2] R.F. Grant, *The Canadian Atlantic Fishery*, 1934, p. 3. Deposited by Canada pursuant to Article 50(2) of the Rules of Court.

[3] The following comparative values of the cod and lobster industries appear in Grant, *op. cit.*, p. 29:

	Lobster Industry	Cod Fishery
	Marketed Values	
	(Shipped in Shell and Canned)	(Dried, smoked, and fresh)
NOVA SCOTIA COUNTIES		
Shelburne	442,967	212,000
Yarmouth	348,899	64,360
Digby	91,439	59,300

[4] Canadian Counter-Memorial, para. 334.

International Commission for the Northwest Atlantic Fisheries. The record before the Court establishes that Canadian fishing activity on Georges Bank prior to 1950 was occasional and of such slight significance that it was overshadowed completely by the more lucrative Canadian fisheries in the Bay of Fundy, along the coast of Nova Scotia, on the inshore and offshore grounds on the Scotian Shelf, in the Gulf of St. Lawrence, and off Newfoundland.

Appendix A to Annex 29

The Grace and Ruby, 283 Federal Reporter 475 (District of Massachusetts, 1922)

NATIONAL REPORTER SYSTEM—UNITED STATES SERIES

THE FEDERAL REPORTER

WITH KEY-NUMBER ANNOTATIONS

VOLUME 283

PERMANENT EDITION

CASES ARGUED AND DETERMINED

IN THE

CIRCUIT COURTS OF APPEALS AND DISTRICT COURTS
OF THE UNITED STATES AND THE COURT
OF APPEALS OF THE DISTRICT
OF COLUMBIA

WITH TABLE OF CASES IN WHICH REHEARINGS HAVE BEEN
GRANTED OR DENIED

NOVEMBER—DECEMBER, 1922

ST. PAUL
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1923

at certain specified times. There was no apportionment, in the contract, of the purchase price as between the manufacture, transportation, delivery, or installation promised by the plaintiff. It was agreed that the title to the chairs should not pass to defendant, but should remain in plaintiff until full payment therefor in cash. These and other provisions and circumstances plainly indicate that the contract was intended by the parties to be, and therefore must be held to be, entire, and, as it cannot all stand, it must all fall.

It results that the motion for a new trial must be denied, and such an order will be entered.

THE GRACE AND RUBY (two cases).

(District Court, D. Massachusetts. September 18, 1922.)

Nos. 2182, 2183.

1. **Customs duties ⇐130—Forfeiture of vessel for smuggling liquors.**
   A foreign vessel, lying outside the three-mile limit, which delivered a part of her cargo of liquors, which were contraband, in the nighttime, to a motorboat, in which it was taken ashore with the assistance of her small boat and part of her crew, *held* subject to forfeiture under Rev. St. § 2874 (Comp. St. § 5565).
2. **Customs duties ⇐121—Act may constitute different offenses.**
   Unlading a vessel in the nighttime, in violation of Rev. St. § 2872, 2874 (Comp. St. §§ 5563, 5565), is no less an offense under said sections because, being without a permit, it is also an offense under section 2867 (section 5555).
3. **Admiralty ⇐23—Has jurisdiction of offending foreign vessel seized outside three-mile limit.**
   The fact that a foreign vessel, which had violated the laws of the United States, was seized outside the three-mile limit, *held* not to deprive a court of the United States of jurisdiction of the offense under a libel filed after she had been brought into port.
4. **International law ⇐5—Foreign vessels in contact with shore subject to seizure.**
   Foreign vessels, hovering always more than three miles from shore for the purpose of smuggling, which have been in contact with the shore by their own boats and crews, and have thereby assisted in smuggling, are subject to seizure.

Libel by the United States against the schooner Grace and Ruby. On exceptions to libel for lack of jurisdiction. Overruled.

Charles P. Curtis, Asst. U. S. Atty., of Boston, Mass.
Daniel A. Shea, of Boston, Mass., for claimant Sweeney.

MORTON, District Judge. These are libels for the forfeiture of the schooner Grace and Ruby for smuggling liquor in violation of Rev. St. §§ 2872, 2874 (Comp. St. §§ 5563, 5565), and the National Prohibition Act (41 Stat. 305). They were heard upon exceptions to the libels, raising solely the question of jurisdiction. The facts are settled by stipulation of the parties. Those essential to a decision may be briefly stated as follows:

(The Grace and Ruby was a British vessel owned and registered in Yarmouth, Nova Scotia, and commanded by one Ross, a British subject. She sailed from the Bahama Islands, British West Indies, with a St.

⇐For other cases see same topic & KEY-NUMBER in all Key-Numbered Digests & Indexes

John, N. B., clearance, on February 10, 1922, having a cargo of liquor, part of which was owned by one Sullivan, of Salem, Mass., who was on board. From the Bahamas she proceeded directly to a point about six miles off Gloucester, Mass., where Sullivan was set on shore and the schooner stood off and on, keeping always more than three miles from land. Two days later Sullivan came out to her in motorboat Wilkin II, owned in Gloucester and manned by two men, to bring provisions to the schooner and to take on shore part of her cargo. At that *time the schooner was about ten miles from the nearest land.* About 8,000 bottles of whisky and some other liquors were there transferred from the Grace and Ruby into the motorboat and taken to shore at night. Three members of the crew of the schooner, as well as Sullivan, went in the Wilkin II, and a dory belonging to the schooner was towed along, presumably for use in landing the liquor, or to enable the men to return to the schooner after the liquor was landed. The attempt to land the liquor was discovered by revenue officers, and Wilkin II and her cargo were seized.

The next day the revenue cutter Tampa was ordered to find the Grace and Ruby and bring her into port. Two days later, on February 23d, she discovered the schooner, and after some show of resistance on her part, which was overcome by a display of force by the cutter, the schooner was seized and brought into the port of Boston by the Tampa. At the time of the seizure the Grace and Ruby was about four miles from the nearest land. She had on board the balance of her cargo of liquor. Her master is no way assented to the seizure. After the schooner was brought into Boston the present libels were filed, a warrant for her arrest issued, and she was taken into custody by the United States marshal.

[1] From the agreed facts it is clearly inferable that the master of the Grace and Ruby knew that she was engaged in an enterprise forbidden by the laws of the United States; that he knew her cargo was contraband; that she was lying off the coast beyond the three-mile limit, but within the four-league limit, for the purpose of having her cargo taken ashore in other boats; and that before her seizure part of her cargo had been transferred to Wilkin II for the purpose, as her master knew, of being smuggled into this country, with the assistance of the schooner's crew and boat. There is nothing to suggest any intent on his part, if that be material, that the Grace and Ruby herself should go within the territorial jurisdiction of this country, and so far as appears she never did. She was hovering on the coast for the purpose of landing contraband goods, and had actually sent, at night, a part of her cargo ashore, with her boat and three of her men to assist in landing it.

[2] While the question is not free from doubt, and no decision upon the point has come to my notice, it seems to me that this action on her part constituted an unlawful unlading by the Grace and Ruby at night within the territorial limits of the United States, in violation of Rev. St. §§ 2872, 2874. See 1 Wheaton, Criminal Law (11th Ed.) §§ 324, 330, 341, for a discussion of the principles involved and a collection of cases. The act of unlading, although beginning beyond the three-mile limit, continued until the liquor was landed, and the schooner was ac-

tively assisting in it by means of her small boat and three of her crew who were on the motorboat for that purpose. It was none the less an unlawful unlading, within the section referred to, because by the transfer *to the motorboat* an offense was committed under section 2867, which rendered the motorboat and liquor liable to seizure and forfeiture, and the persons who aided and assisted liable to a penalty for so doing. The two classes of offenses are substantially different. I am aware that there has been a difference of judicial opinion about the scope of these sections. See U. S. v. The Hunter (1806) Fed. Cas. No. 15428; The Industry, Fed. Cas. No. 7028 (1812); The Betsy, Fed. Cas. No. 1365; The Harmony, Fed. Cas. No. 6081; The Active, Fed. Cas. No. 33. I follow the opinion of Mr. Justice Story, both because it is the law of this circuit and because it seems to me to be the sounder view.

[3] The case, then, is that the Grace and Ruby, having violated our law and laid herself liable to forfeiture under it if she could be reached, was forcibly taken four miles off the coast by an executive department of the government and brought within our jurisdiction. The present question is whether on such facts this court has jurisdiction of a libel brought by the government for the forfeiture of the vessel. It is to be noticed that the schooner is held in these proceedings on the arrest made by the marshal under the warrant that was issued on the filing of the libels, and not under the seizure made by the cutter, when the schooner was taken and brought into Boston. Whether she could have been seized beyond the three-mile limit for an offense committed wholly beyond that limit is not the present question.

The high seas are the territory of no nation; no nation can extend its laws over them; they are free to the vessels of all countries. But this has been thought not to mean that a nation is powerless against vessels offending against its laws which remain just outside the three-mile limit. It has been said:

"*It can provide by statute or other municipal regulation for the seizure and forfeiture of such vessels, though belonging to foreign nations, within the waters adjacent to its coasts, if reasonably necessary for its proper protection and the enforcement of its laws. It is on this ground that the four-league limit established by Rev. St. § 2867 (Comp. St. § 5555), in regard to unlading rests. * * *

"Its [a nation's] power to secure itself from injury may certainly be exercised *beyond the limits of its territory. * * * These means do not appear to be limited within any certain marked boundaries which remain the same at all times and in all situations. If they are such as unnecessarily to vex and harass foreign lawful commerce, foreign nations will resist their exercise. If they are such as are reasonable and necessary to secure their laws from violation, they will be submitted to." Marshall, C. J., Church v. Hobbart, 2 Cranch, 187, 234–236.

See, too, Manchester v. Massachusetts, 139 U. S. 240, 258, 11 Sup. Ct. 559, 35 L. Ed. 159.

These expressions have been questioned by writers on international law, and are perhaps not entirely consistent with views which have been expressed by our State Department.[1] But Church v. Hubbart has

[1] See Dana's note 108 on what is now Rev. St. § 2867, in Wheaton, International Law, § 179, in which, after discussing Church v. Hubbart and

never been overruled, and I am bound by it until the law is clearly settled otherwise. Moreover, the principle there stated seems to me *such a sensible and practical rule for dealing with cases like the present* that it ought to be followed until it is authoritatively repudiated. This is not to assert a right generally of search and seizure on the high seas, but only a limited power, exercised in the waters adjacent to our coasts, over vessels which have broken our laws.

The mere fact, therefore, that the Grace and Ruby was beyond the three-mile limit, does not of itself make the seizure unlawful and establish a lack of jurisdiction.

[4] As to the seizure:

The *line between territorial waters and the high seas is not* like the boundary between us and a foreign power. There must be, it seems to me, a certain width of debatable waters adjacent to our coasts. How far our authority shall be extended into them for the seizure of foreign vessels which have broken our laws is a matter for the political departments of the government rather than for the courts to determine.

It is a question between governments; reciprocal rights and other matters may be involved. In re Cooper, 143 U. S. 472, 503, 12 Sup. Ct. 453, 36 L. Ed. 232; The Kodiak (D. C.) 53 Fed. 126, 130. In the case of *The Cagliari, Dr. Twiss advised the Sardinian government* that:

"In ordinary cases, where a merchant ship has been seized on the high seas, the sovereign whose flag has been violated waives his privilege, considering the offending ship to have acted with mala fides towards the other state with which he is in amity, and to have consequently forfeited any just claim to his protection."

He considered the revenue regulations of many states authorizing visit and seizure beyond their waters to be enforceable at the peril of such states, and to rest on the express or tacit permission of the states

other cases, he concludes "* * * that the principle is settled that municipal seizures cannot be made for any purpose beyond territorial waters. It is also settled that the limit of these waters is, in the absence of treaty, the marine league or the cannon shot." What Mr. Dana says is quoted with approval in Moore's International Law Digest, the latest work of authority on the subject. 1 Moore's Digest International Laws, 726–730. § 151. Mr. Dana's position seems to accord with that taken by our State Department. In a letter by Mr. Fish, Secretary of State, to Sir Edward Thornton, British Minister, January 22, 1875, Mr. Fish says: "We have always understood and asserted that pursuant to public law, no nation can rightfully claim jurisdiction at sea beyond a marine league from its coast." See 1 Moore's Digest of International Law, 731, § 151. See, also, letter by Mr. Buchanan, Secretary of State, to Mr. Crompton, British Minister, August 19, 1884, Id. p. 730. And Mr. Evarts, Secretary of State, in a letter dated August 11, 1890, to Mr. Fairchild, Minister to Spain, speaking of the provisions of our revenue laws in regard to visitation within four leagues of the coast, says: "This is not dominion over the sea where these vessels are visited, but dominion over this commerce with us, its vehicles and cargoes, even while at sea. It carries no assertion of dominion, territorial and in invitum, but over voluntary trade in progress and by its own election."

None of these communications, however, related to vessels committing unfriendly or hostile acts against the country on whose coasts they were hovering. In The Carlo Alberto (Wheaton, International Law [5th Eng. Ed.] p. 171), the French Court of Cassation condemned a neutral vessel which had landed enemies on French soil and afterwards put into a French port in distress.

whose vessels may be seized. 1 Moore's Internat. Law Digest, pp. 729, 730.

It seems to me that this was such a case. The Grace and Ruby had committed an offense against our law, if my view as to the unlading is right, and was lying just outside the three-mile limit for purposes relating to her unlawful act. In directing that she be seized there and brought into the country to answer for her offense, I am not prepared to say that the Treasury Department exceeded its power.

An order may be entered, overruling the exceptions to each libel alleging lack of jurisdiction.

UNITED STATES v. RAILWAY EMPLOYEES' DEPARTMENT OF AMERICAN FEDERATION OF LABOR et al.

(District Court, N. D. Illinois, E. D. September 23, 1922.)

No. 2943.

1. **Monopolies ⟹24(1)—United States ⟹126—United States may maintain bill to enjoin unlawful conspiracy among strikers in restraint of trade.**

   The United States may maintain a bill in the public interest to enjoin an unlawful conspiracy or combination in restraint of trade among striking railway employees, both under its general equity jurisdiction and under Sherman Act, §§ 1, 4 (Comp. St. §§ 8820, 8823).

2. **Monopolies ⟹12(2)—Statute prohibits combination of either labor or capital to secure action essentially obstructing free flow of commerce.**

   The Sherman Act (Comp. St. §§ 8820–8823, 8827–8830) prohibits any combination whatever, whether of labor or capital, to secure action which essentially obstructs the free flow of commerce between the states.

3. **Injunction ⟹101(2)—One relying on statute relative to labor disputes must bring himself within all the limitations contained in the statute.**

   One relying on the exception to the power of a federal court of equity to give injunctive relief under general principles of equity jurisdiction, created by Clayton Act, § 20 (Comp. St. § 1243d), relative to cases between employers and employees, etc., must bring himself within all the limitations by which the exception is hedged about.

4. **Injunction ⟹101(2)—Monopolies ⟹24(1)—Suit by government not within statute as to injunctions in labor disputes.**

   Clayton Act, § 20 (Comp. St. § 1243d), prohibiting injunctions in cases between employers and employees, etc., involving or growing out of a dispute concerning terms or conditions of employment, unless necessary to prevent irreparable injury, etc., and providing that no such restraining order or injunction shall prohibit certain acts, does not apply to a suit by the United States in the public interest to enjoin an unlawful conspiracy or combination in restraint of trade.

5. **Injunction ⟹101(2)—Statute does not legalize acts in labor dispute, when done in furtherance of conspiracy.**

   Clayton Act, § 20 (Comp. St. § 1243d), providing that no restraining order or injunction in a case between an employer and employees, etc., shall prohibit any person from terminating any relation of employment, ceasing to work, persuading others to do so, etc., and that such acts shall not be considered violations of any federal law, does not make the acts specified immune from punishment, when done in furtherance of an unlawful or criminal conspiracy.

⟹For other cases see same topic & KEY-NUMBER in all Key-Numbered Digests & Indexes

Appendix B to Annex 29

P. C. JESSUP, *THE LAW OF TERRITORIAL WATERS AND MARITIME JURISDICTION*, 1927, PP. 242-247

THE LAW OF TERRITORIAL WATERS AND MARITIME JURISDICTION

The Nature and Extent of Civil and
Criminal Jurisdiction in Marginal Seas
as Evidenced by
Decisions of National and International Courts,
Statutes, Treaties, State Papers, Text Writers, and
General Principles of International Law,
with
Commentaries and a Proposed Code

BY

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stated the principle developed above [5] that the power of a littoral state to exercise jurisdiction in such cases as those now under discussion, is not limited by the exact boundaries of its territory. In this connection he said: "It does not follow, however, that this Government is entirely without power to protect itself from the abuses committed by hovering vessels. There may be such a direct connection between the operation of the vessel and the violation of the laws prescribed by the territorial sovereign as to justify seizure even outside the three-mile limit. This may be illustrated by the case of 'hot pursuit' where the vessel has committed an offense against those laws within territorial waters and is caught while trying to escape. The practice which permits the following and seizure of a foreign vessel which puts to sea in order to avoid detention for violation of the laws of the State whose waters it has entered, is based on the principle of necessity for the 'effective administration of justice.' (Westlake, Part I, p. 177.) And this extension of the right of the territorial State was voted unanimously by the Institute of International Law in 1894.

"Another case is one where the hovering vessel, although lying outside the three-mile limit, communicates with the shore by its own boats in violation of the territorial law. Thus Lord Salisbury said, with respect to the British schooner *Araunah,* that Her Majesty's Government were 'of opinion that, even if the *Araunah* at the time of the seizure were herself outside the three-mile territorial limit, the fact that she was by means of her boats, carrying on fishing within Russian waters without the prescribed license warranted her seizure and confiscation according to the principles of municipal law regulating the use of those waters.' A case similar to this was that of the *Grace and Ruby.* (238 Fed. 475)." [6]

The Grace and Ruby.

This case of the *Grace and Ruby,* decided by the District Court of Massachusetts on September 18, 1922, was one of the first in which the American courts were called upon in connection with the prohibition laws to analyze the nature of this

[5] *Supra* Chapter II, pages 75–76.
[6] *Op. cit.* pp. iv.–v.

extra-territorial jurisdiction of the United States under international law.[7]

The *Grace and Ruby* was a British vessel owned and registered in Nova Scotia and commanded by a British subject. She sailed from the Bahama Islands with a clearance for St. John's, N. B., on February 10, 1922, with a cargo of liquor partly owned by an American citizen residing in Salem, Massachusetts who was on board during the voyage. The vessel proceeded directly from the Bahamas to a point about six miles off Gloucester, Massachusetts, where the American went on shore. The ship remained hovering off this point of the coast, always keeping more than three miles from land. Two days later the American returned in a Gloucester motor-boat, taking provisions to the schooner, which was then ten miles from the nearest land, and carrying back to the shore some 8,000 bottles of liquor. In addition to the men who had come out from shore in the motor-boat, three members of the crew of the schooner made the trip, towing a dory belonging to the schooner, which dory was presumably intended for use in landing the liquor and to permit the return of the sailors to the schooner. The motor-boat and her crew were seized by revenue officers. The next day the revenue cutter *Tampa* was ordered to find the *Grace and Ruby* and bring her into port. This was accomplished two days later, although the cutter was compelled to display force to overcome a show of resistance on the schooner's part. At the time of the seizure the *Grace and Ruby* was about four miles from the nearest land, that is, outside the territorial waters of the United States and therefore on the high seas. The United States filed libels for the forfeiture of the schooner for smuggling liquor in violation of Revised Statutes, Sections 2872, 2874,[8] and the National Prohibition Act.[9]

[7] An earlier decision was rendered in the case of *U. S. v. Bengochea, et al.*, (1922 C. C. A. 5th) 270 Fed. 537. In this case the Cuban fishing schooner *Reemplazo* was held to have been lawfully seized more than three but less than twelve miles off the Florida Coast. She intended to land liquor through small boats and failed to produce a manifest. The old 1799 "hovering act" was deemed valid by the court on the basis of *Church v. Hubbart* (2 Cr. 187; 2 L. Ed. 249) and a long acquiescence by foreign governments.

[8] Comp. Stat. Sec. 5563, 5565. These provisions deal with unlawful unlading of cargo. They were repealed and supplanted by The Tariff Act of 1922 (42 Stat. 858).

[9] 41 Stat. 305.

The case was heard upon exception to the libels raising solely the question of jurisdiction.

The Court overruled the exceptions, concluding that the United States had jurisdiction in the premises. The Court decided that although the master of the *Grace and Ruby* knew of the project to violate the laws of the United States, there was never any intention of bringing the ship itself within American territorial waters. The Court concluded also that the actions of the *Grace and Ruby* constituted an unlawful unlading at night within the territorial limits of the United States in violation of the laws referred to in the libel. District Judge Morton said: "The act of unlading, although begun beyond the three-mile limit, continued until the liquor was landed, and the schooner was actively assisting in it by means of her small boat, and three of her crew, who were on the motor-boat for that purpose." The Court pointed out that the schooner was held on the arrest made by the marshal under the warrant that was issued after the filing of the libels and not on the seizure made by the cutter on the high seas, and that therefore the question whether she could have been seized beyond the three-mile limit for an offense committed wholly beyond that limit was not in issue. In asserting that the seizure was valid nevertheless, Judge Morton relied principally upon Chief Justice Marshall's decision in the case of *Church v. Hubbart*,[10] although he admitted that this decision had been questioned by writers on international law. The Court stated that it was not asserting a right generally of search and seizure on the high seas, "but only a limited power exercised in the waters adjacent to our coast over vessels which have broken our laws." The Court believed that it was for the political departments of the government rather than for the courts to determine how far the authority of the United States should be extended for such purposes. The judge considered that the case was similar to that decided by Twiss in the case of the *Cagliari*.[11]

An appeal was taken to the Supreme Court under the old

[10] (1804) 2 Cranch 187; 2 L. Ed. 249. Curiously enough, the same judge, in a later case relied on the somewhat contrary case of *Rose v. Himely*, 4 Cranch 241; 2 L. Ed. 608; see *The Marjorie E. Bachman* (1925) 4 F. (2d) 405; *infra* Chapter VII, p. 334.

[11] I Moore's *Digest*, p. 720; see *supra* Chapter II, p. 95.

practice, but failed because the order appealed from was in interlocutory and not final form.[12]

It is to be noted that the Court's decision is based largely upon the theory advanced by Secretary Hughes in justification of the seizure. Nevertheless, in relying upon the case of *Church v. Hubbart,* and in laying a burden of discretion on the political department, the Court seems to be supporting a certain right of jurisdiction over the high seas, whereas the Department of State, in relying upon the case of the *Araunah,* proceeded entirely upon the theory of constructive presence of the hovering vessel within territorial waters through the medium of the ship's own small boats. Secretary Hughes invoked this doctrine, however, merely as one of the applications of the basic principle of direct connection between the ship and the acts which occurred within territorial limits.

The British Government was not prepared to acquiesce in this view. On December 30, 1922, the British Ambassador addressed a note to the Secretary of State in the following terms:

"On September 27th last a statement, purporting to be officially inspired, appeared in the daily press to the general effect that the United States Government had decided to restrain prohibition enforcement officials from seizing, outside the three-mile limit of territorial waters, foreign vessels which are suspected of being engaged in the smuggling of liquor. According to the same statement, however, this ruling did not apply to the searching, beyond the three-mile limit, of ships which were known to be in contact with the shore, such as the running of small craft of the ship to some point on the land.

"From semi-official correspondence which has since passed between us in regard to individual British vessels arrested outside territorial waters on the charge of liquor smuggling it appears that the United States Government are in fact acting on the principle defined above. The majority of such vessels either have, through your kind intervention, already been released or else are in process of being restored to their owners. The only exceptions to this rule appear to have been made in the case of vessels, notably the 'Grace and Ruby,' in respect of which a charge has been lodged of having been in communication with the shore by means of the ship's small boats.

[12] Not reported before the Supreme Court.

"In order to avoid the possibility of any misunderstanding, I am desired by my Government to make it clear that His Majesty's Government are unable to acquiesce in what they understand to be the ruling of the United States Government, namely, that foreign vessels may be seized outside the three-mile limit if it can be shown that they have established contact with the shore for illegal purposes by means of their own small boats. My Government must reserve their right to lodge a protest in any individual case in which action may be taken by *the United States Government under this ruling.*" [13]

To this note Secretary Hughes replied on January 18, 1923, as follows:

"I have the honor to state that consideration has been given to the statements contained in your note and the conclusion has been reached that the Government of the United States should adhere to the position it has previously taken that foreign vessels outside the three-mile limit may be seized when it is established that they are using their small boats in illegal operations within the three-mile limit of the United States. This conclusion is supported by the position taken by the British Government in the case of the British Columbian schooner ARAUNAH, which was seized off Copper Island, by the Russian authorities in 1888, because it appeared that members of the crew of the schooner were illegally taking seals in Bering Sea by means of canoes operated between the schooner and the land, and it was affirmed that two of the canoes were within half a mile of the shore. Lord Salisbury stated that Her Majesty's Government were 'of opinion that, even if the ARAUNAH at the time of the seizure was herself outside the three-mile territorial limit, the fact that she was, by means of her boats, carrying on fishing within Russian waters without the prescribed license warranted her seizure and confiscation according to the provisions of the municipal law regulating the use of those waters.' (Volume 82, British and Foreign State Papers, page 1058.)

"I may add that it is not understood on what grounds the decision of His Majesty's Government in this matter was reached, in view of the position taken by Lord Salisbury in the ARAUNAH case and the statement in your note No. 781 of October 13, 1922, that his Majesty's Government 'are desirous

[13] MS. records, Department of State; Press release, February 20, 1927.

of assisting the United States Government to the best of their ability in the suppression of the traffic and in the prevention of the abuse of the British flag by those engaged in it.' "[14]

The Case of the Henry L. Marshall.

The second case of importance to come before the American courts involved different but analogous principles, which were thus summarized by Secretary Hughes:

"It will be noted that in the case of the *Araunah* it was the vessel herself that was deemed subject to seizure outside the three-mile limit, and not simply her small boats, and this was manifestly because of the direct connection between the conduct of the vessel and the violation of the law of the territory. It may be urged with force that this principle should not be limited to the case of the use by the vessel of her own boats, where she is none the less effectively engaged, although using other boats, in the illegal introduction of her cargo into the commerce of the territory." [15]

The case to which the Secretary referred was that of the *Henry L. Marshall*.[16] This ship had originally been an American vessel owned by an American named McCoy, who proved to be one of the most active and interesting characters in the entire field of liquor importations from hovering vessels. It was alleged in the Government's brief that McCoy desired to *transfer the ship to British registry* in order to secure the protection of the British flag in his rum-smuggling activities. It was alleged that McCoy in effect remained the actual owner and that he controlled the movements of the ship. On a voyage previous to the one during which the ship was seized by the United States it appeared that the vessel had sailed from Nassau with a cargo of liquor which was taken to a point near

[14] MS. records, Department of State; Press release Feb. 20, 1927. The statements of Lord Salisbury in the *Araunah* case are believed to have constituted a complete check upon the protest of the British Government. In this connection, see statement on behalf of the British Government made in the House of Commons, April 30, 1923; Parl. Deb. (Commons) 5th Ser., V. 163, col. 968. For a further exposition of Judge Morton's views emphasizing the idea of constructive presence, see his decision in the case of *The Marjorie E. Bachman*, 4 F. (2d) 405, quoted *infra* Chapter VII, p. 334.

[15] *Op. cit. supra*, note 4, p. v.

[16] (1922, S. D., N. Y.) 286 Fed. 260.

Annex 30

A CRITIQUE OF THE DISCUSSION IN THE CANADIAN COUNTER-MEMORIAL OF THE DEFENSE ACTIVITIES OF THE PARTIES IN THE GULF OF MAINE AREA

1. The purpose of this Annex is to respond to three arguments that Canada has raised in response to the demonstration in the United States Memorial and Counter-Memorial that the United States has assumed primary responsibility for the defense of most of the Gulf of Maine area [1]

2. The Canadian Counter-Memorial implies that the United States did not contribute in World War II to the defense of the Gulf of Maine area prior to "the end of 1941 [2]". This implication is inaccurate. In October, 1939, the United States joined in the Declarations of Panama [3], which announced sea safety zones and issued a warning to belligerents not to operate west of 60° West longitude. Pursuant to the Declaration, the United States established and maintained a neutrality patrol. Beginning in August, 1941, the United States Navy escorted convoys from North America to Iceland. In September, 1941, the United States assumed strategic control over the Western Atlantic, an arrangement in which Canada concurred [4].

3. Canada also argues that the "United States contribution to joint convoy [defense] essentially was limited to 1942 [5]". In this regard, Canada states incorrectly that, in April, 1943, at the Atlantic Convoy Conference,

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[1] United States Memorial, paras. 131-132; United States Counter-Memorial, paras. 103-106.

[2] Canadian Counter-Memorial, Annexes, Vol. III, para. 97.

[3] Declarations Adopted by the Meeting of the Foreign Ministers of the American Republics at Panama, 3 Oct. 1939, Charles Bevans, ed., *Treaties and Other International Agreements of the United States of America: 1776-1949*, Vol. 3, pp. 604-610. Appendix A.

[4] Under the defense plan known as ABC-1, and its successor plan ABC-22, strategic responsibility for the Atlantic was divided into three areas: Great Britain was responsible for the eastern Atlantic, the United States was responsible for the western Atlantic, and Canada "could assume responsibility for the strategic direction of forces in such ... areas as might be defined by joint U.S.-Canadian agreements". [S.W. Dziuban, *Military Relations between the United States and Canada: 1939-1945*, 1959, pp. 65, 105; deposited by Canada pursuant to Article 50(2) of the Rules of Court.]

[5] Canadian Counter-Memorial, para. 448.

the United States "relinquished all responsibility for trade convoys on the northern routes between North America and Europe [1]". The United States agreed at that time that Canadian and British forces would be responsible for the physical protection of mercantile convoys, but retained responsibility for the physical protection of troop convoys and warship formations [2]. Moreover, the United States retained strategic control and responsibility for all convoys south and west of the Change of Operational Contról (CHOP) line [3].

4. Canada also maintains that the CHOP line is "little more" than the point at which ships at sea would change radio frequencies for routing and weather information [4], and that the line was an "insignificant feature of the war effort [5]". On the contrary, in response to the need to move men and materiel across the Atlantic Ocean as quickly and as safely as possible, the CHOP line was devised "to define exactly the American and British areas of responsibility for the control of transoceanic convoy and ship movements [6]".

6. The United States acknowledges and respects the fact that Canada has been allied with the United States in the defense of the North American continent, pursuant to which Canada has shared responsibilities for, and has made valuable contributions to, the defense of the Gulf of Maine area. Nevertheless, Canada's contributions are not inconsistent with the longstanding and comprehensive assumption by the United States of strategic responsibility for the defense of most of the Gulf of Maine area [7].

7. The United States does not maintain that its activities in the Gulf of Maine area have created rights associated with an historic title to that area. Rather, the United States believes that such activities and agreements "reflect mutual understanding[s] of . . . respective responsibilities in the area . . . inconsistent with a Canadian claim to jurisdiction over any part of Georges Bank [8]".

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[1] Canadian Counter-Memorial, Annexes, Vol. III, para. 95.

[2] Telegram from Commander-in-Chief, United States Atlantic Fleet, to Naval Service Headquarters of Canada, dated 24 Apr. 1943. Appendix B.

(28) [3] *Ibid. See also* United States Memorial, Fig. 14; United States Counter-(106) Memorial, Fig. 17.

[4] Canadian Counter-Memorial, Annexes, Vol. III, para. 101.

[5] Canadian Counter-Memorial, Annexes, Vol. III, para. 102.

[6] Headquarters of the Commander-in-Chief, United States Fleet and Commander, Tenth Fleet, "History of Convoy and Routing", United States Navy Dept., 1945, p. 38. Appendix C.

[7] Although Canada notes its contributions during the Cuban (International) Missile Crisis of 1962, it fails to mention that, under the combined command structure, United States military officers exercised strategic control over those Canadian forces deployed in the Gulf of Maine area. This exercise of strategic control and responsibility parallels the situation of the Parties during World War II.

[8] United States Counter-Memorial, para. 106.

Appendix A to Annex 30

DECLARATIONS ADOPTED BY THE MEETING OF THE FOREIGN MINISTERS OF THE AMERICAN REPUBLICS AT PANAMA, 3 OCTOBER 1939, CHARLES BEVANS, ED., *TREATIES AND OTHER INTERNATIONAL AGREEMENTS OF THE UNITED STATES OF AMERICA: 1776-1949*, VOL. 3, PP. 604-610

[Not reproduced]

Appendix B to Annex 30

TELEGRAM FROM COMMANDER-IN-CHIEF, UNITED STATES ATLANTIC FLEET, TO NAVAL SERVICE HEADQUARTERS OF CANADA, DATED 24 APRIL 1943

NAVAL MESSAGE — NAVY DEPART

DRAFTER	EXTENSION NUMBER	ADDRESSEES	PRECEDENCE
FROM OPNAV RELEASED BY H. C. TRAIN DATE 24 APRIL 43	FOR ACTION	N S H Q	PRIORITY ROUTINE DEFERRED
TOR CODEROOM 1708 DECODED BY /ESTERLY PARAPHRASED BY	INFORMATION		PRIORITY ROUTINE DEFERRED

INDICATE BY ASTERISK ADDRESSEES FOR WHICH MAIL DELIVERY IS SATISFACTORY — PAGE 1 OF 2

KNIGHT 241708 NCR 1806

UNLESS OTHERWISE INDICATED THIS DISPATCH WILL BE TRANSMITTED WITH DEFERRED PRECEDENCE.

ORIGINATOR FILL IN DATE AND TIME — DATE — TIME — GCT

TEXT

ACTION: F-00, F-01, F-015, F-0015, F-05, F-07, F-1, F-11, F-2, F-3, F-30, F-31, F-32, F-33, F-34, F-35, F-37, FG-00, VCNO

DNI LTR APRIL 16. PROPOSED RELEASE UNSATISFACTORY TO COMINCH IN FOLLOWING PARTICULARS:

PARAGRAPH 1 - THE STATEMENT THAT THE CANADIAN GOVERNMENT HAS ASSUMED OPERATIONAL CONTROL OF ANTI-SUBMARINE WARFARE IN THE NORTHWEST ATLANTIC IS INCORRECT. THE ACTUAL AGREEMENT IS THAT GREAT BRITAIN AND CANADA ARE TO ASSUME COMPLETE CHARGE OF TRADE CONVOYS FROM THE NORTHWESTERN ATLANTIC PORTS TO ENGLAND. THE UNITED STATES RETAINS STRATEGIC RESPONSIBILITY FOR THE WESTERN ATLANTIC, INCLUDING ESCORT OPERATIONS NOT RELATED TO BRITISH TRADE CONVOYS AND LOCAL CANADIAN TRAFFIC.

PARAGRAPH 5 - THE UNITED NATIONS HAVE NOT ENTRUSTED TO THE CANADIAN NAVY FULL RESPONSIBILITY FOR "THIS VITAL OPERATIONAL AREA"

PAGE 1 OF 2

SECRET

NCR—66 Make original only. Deliver to communication watch officer in person. (See Art. 76 (4) NAVREGS.)

NAVAL MESSAGE — NAVY DEPARTMENT

DRAFTER	EXTENSION NUMBER	ADDRESSEES	PRECEDENCE
FROM OPNAV RELEASED BY DATE	FOR ACTION		PRIORITY ROUTINE DEFERRED
TOR CODEROOM DECODED BY PARAPHRASED BY	INFORMATION		PRIORITY ROUTINE DEFERRED

INDICATE BY ASTERISK ADDRESSEES FOR WHICH MAIL DELIVERY IS SATISFACTORY

241700B. NCR 1806 PAGE 2 FINAL

UNLESS OTHERWISE INDICATED THIS DISPATCH WILL BE TRANSMITTED WITH DEFERRED PRECEDENCE.

ORIGINATOR FILL IN DATE AND TIME DATE TIME GCT

TEXT

ACTION: F-00, F-01, F-015, F-0025, F-05, F-07, F-1, F-11, F-2, F-3, F-30, F-31, F-32, F-33, F-34, F-35, F-37, IG-00, VCNO

PARAGRAPH 11 - THE IMPLICATION THAT ALL UNITED STATES FORCES WILL BE WITHDRAWN FROM NORTH ATLANTIC SUBMARINE WARFARE IS NOT CORRECT. WHILE THE PARTICIPATION OF UNITED STATES AIRCRAFT IS MENTIONED ELSEWHERE IN THE ARTICLE, THE FACT THAT SOME UNITED STATES ESCORT VESSELS ARE TO CONTINUE TO ASSIST THE BRITISH FORCES APPEARS TO HAVE BEEN OVERLOOKED.

COMMENT BY AC OF S-G-2 CALLS ATTENTION TO FACT THAT SCHEME OUTLINED INVOLVES THE UTILIZATION OF SOME 75 AMERICAN ARMY AIRPLANES, AN ADDITION OF 32 OVER NUMBER AT PRESENT ASSIGNED FOR DUTY WITH THE UNITED STATES NAVY. IT WOULD SEEM APPROPRIATE IN PARAGRAPH 16 TO ACKNOWLEDGE THIS CONTRIBUTION PARTICULARLY AS UNITED STATES ARMY WILL FURNISH MATERIAL AND CREWS. HE NOTES IN CONNECTION WITH PARAGRAPHS 19 TO 21 INCLUSIVE THAT UNITED STATES WAR DEPARTMENT REPRESENTATIVE GENERAL LARSEN IS NOT INCLUDED AMONG THOSE PRESENT.

ORIG: 16.....

COMINCH...FILE

SECRET

NCR—88 . Make original only. Deliver to communication watch officer in person. (See Art. 76 (4) NAVREGS.)

Appendix C to Annex 30

"HISTORY OF CONVOY AND ROUTING", HEADQUARTERS OF THE COMMANDER-IN-CHIEF, UNITED STATES FLEET AND COMMANDER, TENTH FLEET, UNITED STATES NAVY DEPARTMENT, WASHINGTON D.C., 1939-1945, P. 38

Principal North Atlantic and Mid Atlantic Convoys[a]

Arriving	*Convoys*	*Ships*	*Ships per Convoy*	*Escorts*	*Escorts per Convoy*	*Casualties (Enemy Action)[c]* Sunk in C/V	Sunk as Strag.	Damaged
1942	253	7,882	31	1,547	6.1	127	39	17
1943	299	12,745	43	2,481	8.3	126	49	20
1944	380	18,856	50	3,070	8.1	15	3	11
1945[b]	202	8,514	42	1,135	5.6	7	0	5
Total	1,134	47,997	33	8,233	7.3	275	91	53

[a] North Atlantic Trade Convoys, UGF, UGS, OT, UT, CU and AT convoys and returning counterparts, each of which are described in further detail below, plus certain other important convoys, as published in the yearly convoy summaries appearing in U.S. Fleet Anti-Submarine Bulletins. (106, 120, 123, 124.)

[b] Sailing prior to VE.

[c] Including escorts.

Source: 501.

2. *CHOP Lines of the Atlantic*

1. In order to define exactly the American and British areas of responsibility for the control of transoceanic convoy and ship movements (as distinguished from strategic control of warships), the North and South Atlantic oceans have been divided roughly in half. The dividing line is known as "CHOP" (Change of Operational Control). The estimated date and hour of crossing the line is established by a dead reckoning plot and is stated in the sailing telegram. The diverting authority on the other side of the line assumes control on that day, regardless of estimated position. If the hour was not stated in the sailing telegram control changed at noon G.C.T.

2. The CHOP line in the South Atlantic was originally set and has remained along the 26th meridian south of 00°-35′ N.

3. North of the Equator, however, there have been four changes since the first line was adopted on 1 July 1942. Originally proposed in BUSRA a few months previous, it closely corresponded to the North Atlantic strategic control line and ran southward along the 10th meridian to 65 N, thence by rhumb line to the *26th* meridian *53 N*, and thence southward along the 26th meridian, except between 43 N and 20 N where it followed the 40th meridian. (App. E.)

4. The first change of 28 July was a slight one, merely moving the above rhumb line westward so as to meet the 26th meridian at *57 N*, instead of 53 N.

5. On 12 November 1942 the second change moved the chop line for all movements exclusive of troop convoys and independent troop ships (for which the line of 28 July applied until 1 April 1943) westward to the *35th* meridian as far south as 50 N, thence by rhumb line to 43 N, 40 W, southward again along the 40th meridian to 20 N, and thence by *rhumb line* to 00-35 N, 26 W.

6. The next change, effective 1 April 1943 was again to the westward to facilitate *still further the British and Canadian control of the extreme* Northwest Atlantic, and increased the total area of British control to its maximum limits. Now the line ran from Greenland along the *47th* meridian to *29 N*, and thence again . . .

Annex 31

A CRITIQUE OF THE ARGUMENTS IN THE CANADIAN COUNTER-MEMORIAL CONCERNING THE PURPORTED ECONOMIC DEPENDENCE OF NOVA SCOTIA UPON GEORGES BANK

1. Canada rests much of its case upon the argument that the economy of Nova Scotia is dependent upon its Georges Bank fisheries and would be devastated by their loss. The argument bears no legal relevance to the delimitation in this case[1], but is intended instead to appeal to the emotions. Canada seeks to impose upon the Court the responsibility for creating "upheaval and social distress[2]" and "calamitous decline[3]", for in effect setting "simultaneous fires" through 130 villages and towns[4], and for causing dozens of them to "cease to exist[5]". Fortunately, the spectres raised by such fervid rhetoric are without foundation. The facts reveal that the Georges Bank fisheries are critical neither to the economy of Nova Scotia as a whole nor to its fishing industry, and that the economy of Nova Scotia, as well as its fishing industry, readily could adjust were the Court to confirm United States jurisdiction over Georges Bank[6].

2. The Canadian pleadings exaggerate the economic importance to Canada of its fisheries on Georges Bank. One means by which Canada repeatedly conveys this exaggerated impression is to blur the distinction between "the fishery" as a whole and its Georges Bank fisheries. Another is to compare "the fishery" as a whole only to parts of the economy. Canada *never* measures the significance of its Georges Bank fisheries to the entire economy of Canada or even to that of Nova Scotia[7]. The

[1] United States Counter-Memorial, paras. 159-191; United States Reply, paras. 106-114.

[2] Canadian Counter-Memorial, para. 309.

[3] Canadian Counter-Memorial, para. 314.

[4] Canadian Counter-Memorial, para. 309.

[5] Canadian Memorial, para. 172.

[6] Canada professes to agree with the United States that considerations of "relative wealth" are irrelevant to boundary delimitation. [Canadian Counter-Memorial, para. 286.] Canada nonetheless implies that Nova Scotia is impoverished in relation to New England. [Canadian Counter-Memorial, paras. 273, 274, 276, 300, and 305.] In fact, the standard of living in Nova Scotia is comparable to standards of living in the rest of Canada and in western industrialized nations in general. [United States Counter-Memorial, Annex 4, Vol. III, para. 44.]

[7] United States Counter-Memorial, Annex 4, Vol. III, paras. 10-28.

United States has made these comparisons, and has found that the contribution of the Canadian fisheries on Georges Bank to either economy is modest indeed. For example, in 1980, the most recent year for which data are available, fishing and fish processing associated with Georges Bank contributed directly only 0.011 per cent to the employment and 0.017 per cent to the gross domestic product of Canada, and only 0.5 per cent to the employment and 0.7 per cent to the gross domestic product of Nova Scotia [1].

3. In light of the diminutive contribution of the Georges Bank fisheries to the economies of Canada and Nova Scotia, the loss of those fisheries would not cause significant harm to either the national or provincial economies, even in the absence of mitigating factors. The effects in Canada of the confirmation of United States jurisdiction over Georges Bank, could readily be mitigated by a shift in fishing effort to available alternate sources of fish, by a reallocation of capital and labor to other sectors of the rapidly growing Nova Scotia economy, and by assistance from the national and provincial governments.

4. The fishery resources available to Canada, apart from those of Georges Bank, are so abundant that, had the extension of United States fisheries jurisdiction over Georges Bank in 1977 been enforced against Canada, Canadian catches nonetheless would have increased substantially over those prior to Canada's extension of its own fisheries jurisdiction in 1977 [2]. Canada's Atlantic catches increased from 789,655 metric tons in 1975, including its Georges Bank catch, to 1,084,641 metric tons in 1980, excluding its Georges Bank catch [3]. Moreover, Canada expects continued substantial increases in its catch within its extended fisheries zone in the Northwest Atlantic. Canada's Task Force on Atlantic Fisheries estimates that the Canadian groundfish harvest, which was 470,000 metric tons in 1976 and 779,000 metric tons in 1981, will be 1,100,000 metric tons by

[1] United States Counter-Memorial, paras. 16 and 17.

[2] Canada contends that United States references to Canada's vast fishery resources are irrelevant because they pertain to the issue of relative wealth. [Canadian Counter-Memorial, para. 286.] Inasmuch as Canada argues that Nova Scotia is dependent upon Georges Bank, it is appropriate to demonstrate that Canada and Nova Scotia have alternate resources available to them. The United States discusses Canada's fishery resources only to expose the errors of fact in Canada's "dependence" argument, and not, as suggested by Canada [Canadian Counter-Memorial, para. 289], to seek a "just and equitable share" or an apportionment of natural resources.

[3] United States Counter-Memorial, para. 347, n. 6. Should the Court confirm United States jurisdiction over Georges Bank, Canada will have enjoyed not only the enormous increase in its own resources as a result of the extension of its fisheries jurisdiction to 200 nautical miles, but also the benefit of a 7-year "grace period" or "phase-out" of its Georges Bank fisheries.

1987 [1]. These expected increases far exceed Canada's Georges Bank catch in both volume and value [2].

5. In the event that United States jurisdiction over Georges Bank is confirmed, there will be a shift of Canadian fishing effort from Georges Bank to other fisheries. This transition will be manageable, not only because of the abundant alternate fishery resources, but also because approximately one-half of the groundfish and nearly all of the scallops taken on Georges Bank by Canadian fishermen are caught by large offshore vessels, as opposed to the "small-vessel" fleet [3]. These large, long-range, corporate-owned vessels inherently are more adaptable than smaller vessels, in terms of the number of fishing grounds they can exploit and, for the offshore scallopers, their ability to modify their gear to fish for new species. Canada already plans to invest at least $190 million

[1] Task Force on Atlantic Fisheries, *Navigating Troubled Waters* [the "Kirby Report"], Ministry of Supply and Services of Canada, 1982, p. 23. Deposited by the United States in connection with its Counter-Memorial pursuant to Article 50(2) of the Rules of Court.

[2] The estimated *increase* in groundfish catches from 1981 to 1987 is 321,000 metric tons, which would be valued at Can.$108,786,900 at 1981 prices. [Derived from United States Counter-Memorial, Annex 4, Appendix E, Table 17.] This substantial increase may be compared to Canada's 1981 Georges Bank catch, which consisted of 20,391 metric tons of groundfish, 8,013 metric tons of scallops (meat weight), and 26 metric tons of swordfish. The estimated increase of over Can.$100,000,000 in landed value may be compared to the value of Canada's 1980 Georges Bank total catch, which is estimated by the United States to have been just over $50,000,000 in 1980 Canadian dollars. [United States Counter-Memorial, Annex 4, Appendix E, Table 7.]

[3] *Atlantic Business*, Atlantic Canada's leading business magazine, recently explained the distinction between the two fleets:

> "The Canadian Atlantic Coast fishery is seen as having two distinctive components. The inshore fishery is labor intensive, seasonal, uses some 28,000 small vessels, and is scattered, mostly catching lobster or cod. The offshore industry is capital intensive, using large vessels, is concentrated, fishes year round, and catches most groundfish, herring, and scallops. The Americans claim that the Canadian fleet is subsidized because the big Canadian boats are built by government shipyards receiving subsidies.
>
> The offshore fleet is 100 percent company-owned, with 92 percent of those belonging to four companies. These same companies and about eight other smaller ones own most of the 600 processing plants and maintain marketing links in New England."

D. Francis, "The U. S. View: Free Trade Looms", in *Atlantic Business*, Aug., 1983, pp. 15-16. Appendix A.

(Canadian) in the east coast fisheries over the next five years [1], some of which could be used to facilitate the transition to other fisheries for both large and small vessels.

6. Confirmation of United States jurisdiction over Georges Bank will *not* affect significantly Canada's groundfish fleet. In 1980, Georges Bank groundfish accounted for only 9.5 per cent of the groundfish landed in Nova Scotia and 3.4 per cent of the groundfish landed in Atlantic Canada [2]. Three-quarters of Canada's Georges Bank groundfish harvest was caught by the large vessels of the offshore fleet [3]. The small-boat fleet in Nova Scotia, consisting of "small offshore" vessels and numerous inshore vessels, makes little use of Georges Bank [4].

7. A shift from Georges Bank to other fisheries will involve primarily Canada's offshore scallop fleet, consisting of about 70 large vessels, [5] which accounts for about 80 per cent by value of Canada's Georges Bank catch [6]. This fleet lands most of its catch in the Lunenburg-Riverport complex, the base for 52 of these vessels [7], with the remainder going to a handful of other ports [8]. In recent years, Canada's offshore scallopers have not confined their activities to the Georges Bank stocks: 45 per cent of their 1982 catch came from other areas [9]. Moreover, Canada's large

[1] R. Surette, "Fishery casts for new relationship: will it be war, or economic accord?", in *Atlantic Business*, Aug., 1983, p. 26. Appendix B. *See also* Annex 28, Appendix B, containing recent newspaper reports of impending large investment by the federal and provincial governments in the fishing industry.

[2] In 1980, Canadian vessels caught 24,946 metric tons of groundfish on Georges Bank. The total groundfish catch was 736,284 metric tons for Atlantic Canada and 261,627 metric tons for Nova Scotia.

[3] According to the Canadian Memorial, "[m]ost . . . groundfish landings have been taken by large offshore trawlers". [para. 130.] The United States estimates that, in 1980, large vessels (over 65 feet) landed 18,839 metric tons of the total of 24,946 metric tons of groundfish caught by Canadian vessels on Georges Bank. [*See* Annex 32 to this Reply, Annex A.]

[4] *See* United States Reply, Annex 32, A Critique of the Analysis in the Canadian Counter-Memorial Relating to the Significance of Georges Bank to the "Small Vessel" Fleet and the Small Fish Processing Plants of Nova Scotia.

[5] Canadian Memorial, para. 157.

[6] The United States estimates that scallops accounted for 82.4 per cent of the value of Canada's Georges Bank landings by value during the period 1977-1980. United States Counter-Memorial, Annex 4, Vol. III, para. 25, n. 7.

[7] Canadian Counter-Memorial, para. 314.

[8] United States Counter-Memorial, Annex 4, Vol. III, para. 2 and Fig. 7.

[9] The calculation is based upon NAFO SCS Doc. 83/IX/22, "Provisional Nominal Catches in the Northwest Atlantic, 1982". In 1980, 39 per cent of Canada's sea scallop catch came from other areas. [Calculation based upon NAFO *Statistical Bulletin* for 1980; deposited with the Court by the United States in connection with its Counter-Memorial pursuant to Article 50(2) of the Rules of Court.] In 1981, the figure was 26 per cent. [Calculation based upon NAFO *Statistical Bulletin* for 1981.]

scallop vessels were designed to be adaptable to other fisheries [1]. Freed from government restrictions, they could be converted to fish for other species.

8. Labor and capital that in the past have been devoted to the Georges Bank fisheries need not be confined to the fishing industry in the future. There are other opportunities in Nova Scotia's diverse and expanding economy [2]. Indicative of this diversity is that, in 1980, the *entire* fishing industry of Nova Scotia accounted for less than 5.4 per cent of employment in the Province, and 5.3 per cent of the Province's gross domestic product [3]. The developing offshore petroleum industry alone will generate thousands of jobs in the next few years, and perhaps could even create a shortage of fishermen [4]. Moreover, the federal and provincial governments can assist the private sector to reinvest capital and labor in other areas of the economy.

9. Confirmation of United States jurisdiction over Georges Bank will require some change in parts of Canada's fishing industry, but none that would be extraordinary. Catches rise and fall, currencies fluctuate, technology advances, and market conditions change constantly. The Canadian Atlantic fishing industry has existed in this climate of constant change for many decades. The arrival of the distant-water fleets, for example, precipitated substantial changes in Canada's fishing industry, as did the subsequent extension of fisheries jurisdiction. Whereas the United States lacks alternate marketable fisheries resources off of New England, Canada now has begun to develop an enormous new fishery for its northern cod stock. Compared to these developments, a shift by Canada from its fisheries on Georges Bank to other fisheries (or, indeed, to other industries) will be neither unusual nor "calamitous", especially for an industry that has significant untapped resources immediately available to it [5].

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[1] United States Counter-Memorial, Annex 4, Vol. III, para. 59.

[2] United States Counter-Memorial, Annex 4, Vol. III.

[3] United States Counter-Memorial, Fig. 4 and 6.

[4] United States Counter-Memorial, Annex 4, Vol. III, paras. 60-64. A recent study commissioned by the offshore oil industry indicates that some 60 per cent of offshore fishermen are interested in working in the offshore oil and gas industry. *A Study of the Potential Socio-Economic Effects upon the Nova Scotia Fishing Industry from Offshore Petroleum Development,* NORDCO, Ltd., 1983, Table 4.32, p. 110.

[5] Several other States whose fleets were displaced in recent years had no such alternatives available. The experiences of the West German and British distant-water fleets demonstrate the effects suffered by States that lacked alternate fisheries resources as a result of the extension of coastal-State fisheries jurisdiction to 200 nautical miles:

> "... at the close of 1980, [Bremerhaven] was no longer a very active fishing port. Many West German factory trawlers had already been sold to developing nations or refitted for offshore oil surveying, and nearly all the

(footnote continued on next page)

(footnote continued from the previous page)

large fresh-fish stern trawlers that once made a specialty of fast trips to Iceland had been laid up or sold for scrap. Today the situation is even more disheartening for German fishermen. From a peak of slightly over one hundred ships, *the West German distant water fleet now counts only twenty-eight*. . . . An estimated 2,600 West German distant water fishermen are now retired or working ashore.

. . . .

. . . [a] dozen ships are all that is left, operationally speaking, of the British *distant water fleet*. . . . In February of 1980, the Hull Fishing Vessel Owners Association, the port authority that operated all of the city's fishing docks and associated services, declared itself in liquidation. Since then Hull, once Europe's busiest fishing port and the principal base for Britain's distant water fleet, has been notable mainly as a graveyard for long-idled and rusting trawlers. Except for the occasional unloading of a foreign trawler, the Albert and St. Andrew's dock areas are a dead and ghostly place".

W.W. Warner, *Distant Water*, 1983, pp. 310-13. Appendix C.

Appendix A to Annex 31

D. F. Francis, "The U.S. View: Free Trade Looms", *Atlantic Business*, August, 1983, pp. 14-16

[Not reproduced]

Appendix B to Annex 31

R. Surette, "Fishery Casts for New Relationship", *Atlantic Business*, August, 1983, pp. 25-32

Fishery Casts for New Relationship

Will it be war, or economic accord?

By Ralph Surette

At the heart of commercial relations between the Atlantic Provinces and New England — past, present and future, is fish: hundreds of thousands of tons of fish that enters the United States annually via the legendary Boston market.

It is the lifeblood of Atlantic Canada's fishery. About 60 per cent of the region's exports go there and for groundfish the proportion is 80 per cent, worth about half a billion dollars. But these exports are not entirely welcome.

The result is a fractious relationship between the two regions, with the potential for even more trouble as Atlantic Canada attempts to expand its American sales to handle the growing northern cod stock. However, the situation is not entirely negative and there are those who foresee cooperation between the fishing industries of Atlantic Canada and New England to mutual advantage.

In the past, whenever the movement of Atlantic Canadian fish to New England ran into rough waters it was because of wider economic protectionism that had only marginally to do with fish. The trade tariffs imposed after the Civil War and World War I were particularly harsh, and particularly devastating for the Maritimes, and there have been others. Most recent was the 10 per cent U.S. surcharge added in 1970 to all imports — a move which sent Canada scurrying to Europe in search of new markets, for fish as well as other products, under a policy called the "Third Option".

Protectionism is again a factor but the root of current trade tension is something peculiar to the fish trade itself, the 200-mile offshore economic zones declared by both countries in 1977. The claims overlapped on Georges Bank. A set of storm-tossed negotiations led to agreement in 1979 on a joint fishery management scheme for the disputed zone. While the negotiations were going on the two countries banned each other's fishermen from their respective waters. American fishermen blockaded the Yarmouth-Maine ferries which carry a large part of the Canadian fish and some American swordfishermen were arrested by Canadian authorities on minor pretexts.

The American fishermen were against the management agreement and succeeded in having it killed in the U.S. Senate. The question of jurisdiction over the disputed northeast part of Georges Bank is now before the World Court in The Hague, which is expected to render judgement next year.

The 200-mile limits altered the economics of fishing for both sides. New England fishermen saw the possibility of supplying more of their own market. At the same time Canadian fishermen gained access to more fish and the prime place to sell it was the United States. Despite considerable effort (some of it successful) to expand sales to other countries, the Canadian — meaning mostly Atlantic Canadian — share of the U.S. groundfish market rose from 30 per cent in 1977 to 37 per cent in 1981. The publicity attendant upon the 200-mile zones

and the oceans generally increased fish consumption, making it a more prized commodity and something more worth fighting over.

Meanwhile the process of Atlantic Canada's penetration into the U.S. market is not finished. The northern cod stocks off Labrador are expected to expand by 50 per cent or more before levelling off in a few years. The United States seems to be the only place to sell this fish, especially now that the Canada-European Economic Community treaty, which was to increase groundfish sales to Europe, has come apart over the seal hunt and the failure of the EEC to open its markets as much as foreseen.

Canadian expansion into the U.S. market rubs hard against New England fishermen and some sectors of the processing industry. "They have the feeling that it undersells the American product and brings the overall price down and that it's unfair", says Douglas Marshall, executive director of the New England Regional Fisheries Council. What's seen as "unfair", of course, is government support for the Canadian industry. On that basis, the New England industry has managed to have the U.S. Department of Commerce launch yet another inquiry into whether the Canadian product is unfairly subsidized — the third such review in recent years. The others found no reason to impose countervailing duties.

At the same time a U.S. law, which took effect May 15, controls the number of scallop "meats" per pound that can be imported. It's effect on the $88-million (as of 1982) scallop industry is still unknown, but it's not likely to be good. This is an irritant rather than a major issue, but for Joe Casey, owner of Casey Seafoods Ltd. in Digby and a Nova Scotia MLA, it illustrates the essential problem on the Canadian side. "All of a sudden", he says, "you face the stark reality that laws can be made in the U.S. over which we have no control. But they are the customer. That puts a fellow in a very precarious situation."

However, the U.S. market is enormous and, precarious or not, the attempt will be made to sell more Atlantic Provinces groundfish there. The Kirby Task Force report points out just how large it is: a shift of one-tenth of a percentage point per year for five years in U.S. consumer demand toward fish and away from meat would sop up any foreseen increase in Canadian groundfish; four-tenths of a point would take up the entire world's expected increase of about 15 per cent (a quarter of which is expected to be from Atlantic Canada).

Kirby laid out a plan to expand sales: improved quality, a diversification of the market base, generic advertising, the licensing of exporters according to certain criteria and the creation of a government-industry Atlantic Fisheries Marketing Council to carry out and improve upon the program.

As far as the New Englanders are concerned, however, the Kirby report may add to the problem. Michael Kirby presented his report to American industry representatives in Boston in March. Says Douglas Marshall: "Our people all listened to the Kirby report and, let me tell you, there was a considerable amount of cynicism, because it didn't seem like much of a change in terms of how the whole thing affects us. If anything this incredible effort to actually expand the market could make things worse for some American fishing interests." Kirby has said there would be no new subsidies "but at the same time he mentioned the incredible amount of new money that is going to be spent in the fisheries".

Interdependence

About $190-million is to be spent over the next five years as a result of the report — not counting further sums that might go into the restructuring of the

five financially depleted East Coast companies. Mr. Marshall was willing to admit, however, that not all of that money need be considered an "unfair subsidy". In fact generic advertising by Canadians for fish on the American market, if it succeeded in making people there eat more fish, would help American fishermen as well.

It is also possible that money spent to upgrade quality on the Canadian side would have the same effect, because American fishermen are trying to do the same thing. Since the market doesn't differentiate Canadian from American fish, especially fresh fish, there is an advantage in doing certain things jointly.

James Wilson, an economist at the University of Maine at Orono, is a strong believer in cross-border cooperation. In fact he believes the fresh fish market should be integrated. "We have to eventually look at it as a single market with a single source of supply. Your fortunes and ours in that market are tied together. The product coming in has to be consistent." But there's no sign of such cooperation. In fact, Mr. Wilson fears that the marketing commission the Kirby report wants to set up will make that impossible. "It will create two different marketing systems", he says.

Mr. Wilson's preoccupation with the fresh fish market is something that should be emphasized. For the New England fishermen, a large part of their problem with the Atlantic Provinces has to do with this sector. Most fish landed by New England fishermen is sold fresh at dockside auctions, mainly at Boston, Gloucester and New Bedford. The Canadian product arrives by truck at Boston and is bought in truckload lots by brokers on a section of the wharf apart from the main auction. Often the trucks will appear in the morning, before the boats come in. Both the timing and the volume of Canadian fresh fish aggravates the American fishermen who see it as causing gluts, and depressing the ever-fluctuating auction prices. It was fresh fish the fishermen wanted to stop when they tried to blockade the Nova Scotia ferries in 1978.

The fish mostly originates in Western Nova Scotia. Processors like Casey Fisheries are in telephone and telex contact with their U.S. brokers every day. "Sometimes the telexes are flying all over the place", says Joe Casey. "It's just like a stock market." Selling fresh has its risks, since the market situation may change in the 12 hours or more it takes a truck to get to Boston. "Some days you send the stuff up there and they don't want to see it", he says. "Other days your phone is ringing off the hook with orders."

The risks are offset by the attractions. Fresh fish is more profitable. There are no freezing or inventory costs — which have kept profit margins for the frozen product down for some three years now. The U.S. fresh market has been expanding too, which is what got the Nova Scotia processors more interested in it than they were. The rise of fast food chains has been primarily responsible. One of the oddities of the fresh fish trade is that some Nova Scotia fish making its way through Boston is finally retailed in Montreal and Toronto.

The total percentage of Atlantic Provinces' groundfish sold fresh is not high. Hard figures are hard to come by but it seems to be in the range of about 10 per cent. As an irritant to the Americans, however, *this is considerable. And in the* end the irritation could cause harm to Canadian fish markets generally. As our Federal Government ponders what to do about the Kirby recommendations on marketing, it would do well to consider the American fishing industry's wish to at least work together to even out the bumpy parts of the fresh trade.

James Wilson says that if American fishermen had their way they would probably ban Canadian imports altogether. But at a deeper level, he says, they realize that the Canadian product is needed to cover seasonal and other shortfalls to keep the market functioning. There is, too, he says a basic desire to coop-

erate with the Atlantic Provinces fishery for mutual advantage, at least in some parts of the industry. An example of this are plans to set up a Portland auction (Maine fishermen resent the domination of Boston) and Canadian suppliers will be invited to participate. There is a recognition, Mr. Wilson says, that Canadian volumes would add substance to such an auction and help it challenge Boston.

As far as cooperation on fisheries matters generally is concerned, there is none at the moment and hasn't been since the U.S. Senate killed the 1979 fish management agreement. Douglas Marshall believes a new start will be made as soon as the World Court decides on Georges Bank. There will be a need at that point to work out a new management scheme for cross-country migratory stocks and things generally might go on from there. "Once the boundary issue is settled you're going to see a willingness to negotiate and deal a bit more on issues that right now nobody wants to touch", he says.

The bulk of Atlantic Canada's hoped-for expansion will be in groundfish in its various frozen forms, plus some saltfish. An enormous expansion has already occurred, Canada now being the world's leading seafood exporter, selling $1.6-billion worth of product in 1981, 52 per cent of which went to the United States. In some segments Canada's share of the U.S. market rose spectacularly between 1977 and 1981. Fillets went from 41 to 60 per cent and blocks (which are processed into fish sticks and the like) from 21 to 34 per cent.

The non-fresh forms do not directly compete with American fishermen, although fishermen there have their eye on those markets too as their own industry expands. They are incensed, Mr. Marshall said, that a company like Gorton's, owned by General Mills, its Gloucester, Mass. plant one of the largest in the United States, "buys not one stick of American fish". They use mostly Icelandic fish, as well as some Canadian.

Yet even if there were no resistance at all from American fishermen, Canadian expansion is by no means something that can be taken for granted. Extra sales will have to be fought for in the face of changing patterns of U.S. consumption and retailing.

Canada's place in the U.S. import market is over the broad middle range — the Scandinavians supply the best quality product, the South Americans, Koreans and others the worst and Canada is in the middle. Atlantic Provinces exporters have followed what is known as a "volume strategy", selling good to middling quality fish into market segments which are generally more on the lookout for low prices than for good quality. Canadian processors would like to crack the high-quality market where Icelandic fish sells for 20 to 30 cents a pound more than average Canadian prices. However, there is a dilemma here. The Icelandic quality has been achieved at such a cost that Kirby points out that they haven't made any money on U.S. sales since 1975. In fact they have been losing for several years now.

New England Link

Nevertheless, Kirby points out that the U.S. market is full of specialized "niches" — "white tablecloth" restaurants, "checkered tablecloth" restaurants, franchised restaurants, school lunch programs, plant cafeterias, various retail and institutional segments and so on. Instead of just onloading fish in bulk, the marketing approach should become more specialized, the report says.

Ian Langlands, vice-president of National Sea Products Ltd. of Halifax, echoes the sentiment. As far as National Sea is concerned, he says, it is striving more and more to tailor its products not only according to, but in anticipation

of, consumer demand. The Atlantic Provinces industry, he says, has to maintain its position as the strongest exporter to the United States. "We have to build a customer-supplier relationship which isn't quite so much of a commodity relationship."

He points out that one of National Sea's major markets — the supermarket chains — is becoming harder to crack. Supermarkets, trying to keep down the high costs of their frozen food sections, are reducing the numbers of brands they stock. With computerized checkouts the daily performance of the product can be checked, and the competition to get on the shelves is intensifying. "You might buy your way in by promising a big ad campaign or you might get in on logic, but in the end the consumer must buy your product or the computer will toss it out."

National Sea has a plant in Rockland, Maine, and has recently bought the 40-million pound-a-year Booth Fisheries plant at Portsmouth, New Hampshire, from Consolidated Foods of Chicago. This will become its New England headquarters. It also has a large plant in Tampa, Fla. "We'll be doing our food service out of Rockland and retail products out of Portsmouth", says Mr. Langlands. The product is mostly sold through regional brokers, which is the way frozen food moves in the U.S., although National Sea also does deals with Gorton's and other large concerns and does some dealing directly with institutions and chains.

Fishery Products Ltd. of St. John's has a plant in Danvers, Mass., and the Lake Group of St. John's has one in Boston. The only other Canadian fish company operating in the U.S. is B.C. Packers Ltd. which has a plant in the Los Angeles area. These plants all compete with and sell to the U.S. giants of the trade which are more forwardly integrated into the retail and food services sectors — Gorton's, Mrs. Paul's Kitchen (Campbell's Soup) and Stouffer's (Nestle).

Political Romance

Relations with New England with regard to the fishery necessarily focus on groundfish, worth over $500-million a year in export value. The U.S. market also takes a couple of hundred million dollars worth of shellfish (scallops and lobster primarily) and herring. But these do not present the same challenges and frictions, except, of course for scallops, which are the cause of much dispute on Georges Bank. But scallops, lobster and herring stocks are either barely staying where they are in terms of quantity or are declining. Shellfish are also finding ready markets in Europe, unlike groundfish.

Whether the Atlantic Canadian move to further expand in the United States will raise tensions to the point of sparking new disputes is hard to tell. In political terms, the American fishery is a "romantic industry", as James Wilson puts it. Fishermen "have clout out of proportion to their numbers". Will they finally succeed in shutting the door to some Canadian imports? Or will things muddle on through, with Canada tailoring its policies to avoid countervailing duties?

In the words of Douglas Marshall, "Canada has agreed government-to-government to stop doing certain things by way of subsidy. This has always been a sort of rearguard action: they do just enough to avoid the tariff being imposed." Or will there be some sort of active cooperation between the two industries, perhaps to mutual advantage? That is something the Canadian industry and government should investigate. The present anger of American fishermen, whether based on fact or fantasy, can do Canadian exports no good if it is allowed to persist.

Appendix C to Annex 31

W. W. WARNER, *DISTANT WATER*, 1977, PP. 310-313

[Not reproduced]

Annex 32

A Critique of the Analysis in the Canadian Counter-Memorial Relating to the Significance of Georges Bank to the "Small Vessel" Fleet and the Small Fish Processing Plants of Nova Scotia

1. In its Memorial and Counter-Memorial, Canada has argued that landings of groundfish from Georges Bank are critical to the small-vessel fleet and to the small fish processing plants in southwest Nova Scotia [1], particularly far southwest Nova Scotia. Canada has defined southwest Nova Scotia to include the five counties of Lunenburg, Queens, Shelburne, Yarmouth, and Digby [2]. Canada has defined far southwest Nova Scotia to include three of those counties: Shelburne, Yarmouth, and Digby [3]. Figure 1.

(203)

2. In its Counter-Memorial, the United States analyzed the extent to which Georges Bank contributed to the groundfish landings of Canada's small-vessel fleet [4]. Following the practice of Canada, these vessels were divided into a "small offshore" fleet and an "inshore" fleet [5]. In its analysis, the United States assumed that all small vessels fishing on Georges Bank were located in far southwest Nova Scotia [6]. The United States estimated that each "small offshore" vessel that fished on Georges Bank during the period 1977 through 1980 took an annual average of between 5.7 and 13.1 metric tons of groundfish from Georges Bank [7].

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[1] Canadian Memorial, paras. 143-148; Canadian Counter-Memorial, paras. 255-262, 298, 306, 307, and 315; and Annexes, Vol. II. Canadian small vessels do not harvest significant quantities of scallops on Georges Bank. United States Counter-Memorial, Annex 4, Vol. III, para. 27, n. 1.

[2] Canadian Memorial, Fig. 11, p. 33.

[3] Canadian Memorial, para. 144.

[4] United States Counter-Memorial, Annex 4, Vol. III, Appendix C.

[5] Canadian Memorial, para. 148; and Annexes, Vol. IV, Annex 5, p. 90; Canadian Counter-Memorial, paras. 255, 256, 261, 306, and 315; and Annexes, Vol. II, paras. 176 and 177. Canada, however, often blurs the distinction between "small offshore" vessels and inshore vessels by referring more generally to small vessels or to small boats. Canadian Counter-Memorial, paras. 255-257, 261, 298, 307, and 315; and Annexes, Vol. II, paras. 173-178.

[6] This assumption was based upon the small size and short range of those vessels and the distance to Georges Bank from the ports of southwest Nova Scotia.

[7] United States Counter-Memorial, Annex 4, Vol. III, Appendix C, para. 3.

Each of these vessels lands a total of several hundred tons of groundfish annually[1]. Further, the United States calculated that, in that same period, the inshore fleet took in the aggregate only 2.9 per cent of its groundfish landings from Georges Bank, an amount equal to only one per cent of the total landings of groundfish in far southwest Nova Scotia[2].

3. The United States has reviewed its assumption regarding the location of the Canadian small vessels that fish on Georges Bank and its estimates regarding the importance of these landings to these vessels in the the light of the additional data included in the Canadian Counter-Memorial. The data provided in the Canadian Memorial and Counter-Memorial, although fragmentary and incomplete[3], when combined with other data available to the United States, confirms that: (1) groundfish landings from Georges Bank by Canadian small vessels are concentrated in far southwest Nova Scotia, principally in the area of Cape Sable Island; (2) the small vessels of far southwest Nova Scotia, even those based on Cape Sable Island, do not rely significantly upon landings from Georges Bank; and, (3) the small fish processing plants of southwest Nova Scotia do not rely significantly upon landings from Georges Bank.

SECTION 1. Landings from Georges Bank by Small Vessels Are Concentrated in Far Southwest Nova Scotia, Principally on Cape Sable Island

4. On the basis of the additional data provided in the Canadian Counter-Memorial, it is now possible to determine the distribution of groundfish landings from Georges Bank in southwest Nova Scotia. These data show that two of the 12 Fisheries Districts that are located in southwest Nova Scotia, Districts 26 and 32, account for most of the landings of groundfish from Georges Bank by both large and small vessels. In 1980, they accounted for 64.2 per cent of those landings[4]. *Appendix A.*

5. District 26 accounts for the largest share of the estimated groundfish landings from Georges Bank by all vessels. In 1980, District 26 accounted

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[1] United States Counter-Memorial, Annex 4, Vol. III, para. 22, n. 4.

[2] United States Counter-Memorial, Annex 4, Vol. III, Appendix C, para. 4.

[3] In order to analyze completely the Canadian assertions concerning the reliance of particular categories of vessels or particular communities upon groundfish landed from Georges Bank, it would be necessary to have data showing the total landings of each species by each category of vessel and in each community from every area fished, for a period of several years. Only some of these data have been provided by Canada.

[4] The United States has focused its analysis upon 1980 because more data are available for that year than for any other.

for an estimated 9,638 metric tons, or 38.6 per cent, of these landings [1]. Appendix A.

6. The remaining landings of groundfish caught on Georges Bank are distributed among the other 11 Fisheries Districts of southwest Nova Scotia. By far, the largest share of those groundfish are landed in District 32 (Cape Sable Island and the mainland immediately adjacent thereto) in far southwest Nova Scotia. In 1980, District 32 accounted for 6,391 metric tons, or 41.7 per cent, of all Georges Bank groundfish landed in Nova Scotia outside of District 26. Moreover, District 32 accounts for most of the landings of groundfish from Georges Bank by small vessels in southwest Nova Scotia. In 1980, District 32 accounted for more than three-quarters of the groundfish landed from Georges Bank by all small vessels [2]. Canada's suggestion to the contrary notwithstanding [3], Fisheries District 32 is not typical, in this regard, of any other part of far southwest Nova Scotia [4].

SECTION 2. The Small Vessels of Southwest Nova Scotia Do Not Rely Significantly upon Georges Bank

A. "Small Offshore" Vessels

7. The "small offshore" fleet as defined by Canada consists of vessels larger than 25.5 gross registered tons (GRT) in displacement but shorter than 65 feet in length [5]. The number of "small offshore" vessels located outside of far southwest Nova Scotia that fish on Georges Bank appears to be negligible [6]. According to the data provided by Canada, during the

[1] All of the groundfish from Georges Bank landed in District 26 were caught by large, corporate-owned, offshore trawlers. These landings, however, comprise only a small part of that District's total groundfish landings from all areas. Appendix B. Moreover, they represent an even smaller part of the value of total landings of all species in the District. Appendix C. This is because most of the large, corporate-owned scallop vessels also are located in District 26. United States Counter-Memorial, Annex 4, Vol. III, para. 26; Canadian Counter-Memorial, Annexes, Vol. II, para. 147.

[2] In 1980, Fisheries District 32 accounted for 75.5 per cent of the Georges Bank groundfish landed in southwest Nova Scotia by small vessels and 76.4 per cent of such landings in far southwest Nova Scotia. Appendix A.

[3] Canadian Counter-Memorial, para. 315.

[4] In 1980, District 32 accounted for 58.9 per cent of the groundfish caught on Georges Bank by all "small offshore" vessels and 100 per cent of the groundfish caught by all inshore vessels there.

[5] Canadian Memorial, Annexes, Vol. IV, Annex 5, p. 90.

[6] The "small offshore" vessels outside of far southwest Nova Scotia took only 74 of the 3,648 metric tons landed by all "small offshore" vessels from Georges Bank. Table A.

years 1978 through 1980, there were approximately 300 "small offshore" vessels based in far southwest Nova Scotia [1].

8. Only one-quarter of the "small offshore" vessels based in far southwest Nova Scotia reported that they had made even a single voyage to Georges Bank. Even fewer reported landing groundfish from Georges Bank. In 1978, 72 "small offshore" vessels based in far southwest Nova Scotia reported making at least one voyage to Georges Bank, but only 60 reported any landings [2]. In 1979, the comparable figures were 83 making at least one trip and 71 reporting landings [2], and, in 1980, 69 vessels made at least one trip and 56 reported landings [2]. On average, for the period 1978 through 1980, some 60 of the approximately 300 "small offshore" vessels based in far southwest Nova Scotia, or only about 20 per cent, reported that they had caught any groundfish on Georges Bank.

9. The total groundfish catch taken from Georges Bank in 1980 by all "small offshore" vessels based in southwest Nova Scotia was 3,648 metric tons [3], which represented only 2.6 per cent of the total groundfish landed by all vessels in southwest Nova Scotia [4]. In all but two of the Districts in southwest Nova Scotia, groundfish landings by "small offshore" vessels from Georges Bank account for between 0 and 5 per cent of the total landings of groundfish [5]. Indeed, in 1981, of the approximately 60 "small offshore" vessels in far southwest Nova

[1] Canadian Memorial, Annexes, Vol. IV, Annex 34, p. 189.

[2] Calculations based upon Canadian Counter-Memorial, Annexes, Vol. IV, Annex 34, p. 189; and Canadian Counter-Memorial, Annexes, Vol. II, Table 12.

[3] Appendix A. The actual landings by the "small offshore" fleet from Georges Bank may be even smaller. Captains of these vessels may have misreported catches taken in Subdivision 4X as taken in Subdivision 5Ze in order to avoid Canadian quota restrictions. Canadian press reports indicate that "[t]he draggers will continue to fish cod in 4X but say it was caught on Georges Bank. Since Georges Bank is the centre of an international boundary dispute, DFO [Departments of Fisheries and Oceans] will probably close its eyes on this mis-reporting, and everything will be hunky-dory." *See Sou'wester*, 1 Aug. 1983, p. 2. Appendix E.

[4] Appendix B. As Canada has not provided the data relating to the total landings of the "small offshore" fleet in areas other than Subdivision 5Ze, it is not possible to calculate the contribution of Georges Bank to the total landings of these vessels.

[5] Only in Fisheries Districts 32 and 33, located in far southwest Nova Scotia, do the groundfish landings by "small offshore" vessels from Georges Bank contribute more than 5 per cent. In those districts, in 1980, landings from Georges Bank contributed only 9.1 and 11.4 per cent respectively, to the total landings of groundfish. Appendices A and B.

Scotia that fished on Georges Bank, Canada has identified only two as relying exclusively upon Georges Bank for groundfish [1].

B. INSHORE VESSELS

10. The inshore fleet, which is made up of vessels under 25.5 GRT [2], is numerically the largest fleet in Nova Scotia. There are approximately 6,500 inshore vessels located in Nova Scotia, of which some 3,000 are in southwest Nova Scotia and over 2,000 in far southwest Nova Scotia [3]. Canada nonetheless reports that the inshore vessels of far southwest Nova Scotia made only 579 trips to Georges Bank in 1980 [4]. Consequently, at most, only 579 of the more than 2,000 inshore vessels in far southwest Nova Scotia fished on the Bank that year. In all likelihood, however, many vessels made more than one such trip, and thus far fewer than 579 of them fished on Georges Bank [5]. These 579 trips resulted in total landings of only 2,459 metric tons of groundfish from Georges Bank in 1980 [6]. This catch represented no more than 6.8 per cent of the total groundfish landings in 1980 by inshore vessels in southwest Nova Scotia [7] and only 1.8 per cent of the total groundfish landings by all vessels in southwest Nova Scotia. Appendix B.

[1] Canadian Counter-Memorial, Annexes, Vol. II, para. 175.

[2] Canadian Memorial, para. 148.

[3] *Nova Scotia Fisheries Atlas*, Nova Scotia Dept. of Fisheries, 1982, pp. 20-21. Deposited with the Court by the United States in connection with its Counter-Memorial pursuant to Article 50(2) of the Rules of Court.

[4] Canadian Counter-Memorial, Annexes, Vol. IV, Annex 30. Canada did not begin to record catches in offshore areas by inshore boats until 1980. [Canadian Counter-Memorial, Annexes, Vol. II, para. 177.] Canada has made available data only for that year and for 1981.

[5] Because of the limited fuel and fish-storage capacities of these vessels, they usually make trips lasting no longer than a few days. Assuming that most vessels made multiple trips to Georges Bank, the number of vessels involved would be substantially reduced. For example, if each vessel made only 10 trips during the 1980 summer fishing season, less than 60 inshore vessels would have fished on Georges Bank.

[6] Canadian Counter-Memorial, Annexes, Vol. IV, Annex 30.

[7] Landings of groundfish in southwest Nova Scotia in 1980 from inshore waters amounted to 33,489 metric tons [Appendix D]. Added to landings from George's Bank, this amounts to 35,948 metric tons. Even if it is assumed that there were no landings of groundfish from any other offshore area (e.g., Browns Bank), Georges Bank landings of 2,459 metric tons still would have accounted for only 6.8 per cent of total groundfish landings.

C. Canada Has Failed to Establish that Even the Small Vessels of Cape Sable Island Rely Substantially upon Landings of Groundfish from Georges Bank

11. Canada asserts that the small vessels of Cape Sable Island are particularly dependent upon Georges Bank [1]. Nevertheless, Canada has failed to substantiate the extent to which the small vessels that land groundfish from Georges Bank in District 32 (or, for that matter, that land them elsewhere in southwest Nova Scotia) rely upon Georges Bank as opposed to other grounds. There were 39 "small offshore" vessels based in District 32 in 1980 [2]. Of these, nearly one-half did not fish on Georges Bank at all [2], and, as Canada states, only two vessels of this class relied "exclusively upon this ground" in 1981 [3].

12. Canada also has failed to furnish evidence from which to conclude that the *inshore vessels on* Cape *Sable Island rely significantly upon* groundfish caught on Georges Bank. In 1980, the inshore vessels of District 32, which were the only vessels of that type in Canada to land any groundfish from Georges Bank [4], landed only 2,459 metric tons [5]. In that same year, these vessels landed 12,176 metric tons of groundfish from inshore waters [6]. Even were it to be assumed that they landed no groundfish at all from offshore grounds other than Georges Bank, the Georges Bank landings would have amounted to only 16.8 per cent of the total groundfish landings of these vessels [7]. In terms of value, the reliance of this fleet upon Georges Bank is even smaller. In 1980, the value of all

[1] Canadian Counter-Memorial, para. 315.

[2] Canadian Counter-Memorial, Annexes, Vol. IV, Annex 34, p. 189.

[3] Canadian Counter-Memorial, Annexes, Vol. II, para. 175. It is not clear from the Canadian statement that these two vessels relied exclusively upon *groundfish* caught on Georges Bank, or fished for other species either on Georges Bank or elsewhere.

[4] Total landings of groundfish from Georges Bank by inshore vessels for 1980 were 2,459 metric tons. [Canadian Counter-Memorial, Annexes, Vol. II, para. 177.] Canadian Counter-Memorial, Annexes, Vol. IV, Annex 30, gives 1980 District 32 groundfish landings from Georges Bank by inshore vessels as 2,459.3 metric tons. Allowing for rounding errors, it is clear that the entire catch of groundfish from Georges Bank by inshore vessels in 1980 was landed in District 32 alone.

[5] Appendix A.

[6] Appendix D.

[7] Total landings undoubtedly did include some landings from other offshore banks, such as the much closer German and Browns Banks. Such landings would reduce the percentage even further, but information concerning these landings has not been provided by Canada.

inshore landings in District 32 was $14,629,674 [1]. The *groundfish landed* from Georges Bank by inshore vessels was valued at $1,228,148 [2]. The value of those landings amounted only to 7.7 per cent of the total [3].

SECTION 2. The Small Fish Processing Plants of Southwest Nova Scotia Do Not Rely Significantly upon Georges Bank

13. Canada also suggests that landings of groundfish from Georges Bank make a significant contribution to the operations of the small fish processing plants in southwest Nova Scotia, and especially those in far southwest Nova Scotia [4]. Canada has not provided the Court with the data necessary to calculate the actual contribution of those groundfish to the operations of these plants. In the absence of these data, the United States assumes that the groundfish processed by the many small plants located in the small ports of southwest Nova Scotia is that landed by the small vessels that also operate out of these ports.

14. Groundfish landings from Georges Bank by small vessels contributed only 4.4 per cent to total groundfish landings in southwest Nova Scotia and 8.4 per cent to total groundfish landings in far southwest Nova Scotia [5]. There is thus no basis to conclude that groundfish from Georges Bank is vital to the survival of any of the small fish processing plants of

[1] Landings from inshore waters of groundfish were valued at 1980 Can.$ 6,238,991. Landings of lobster from inshore waters were valued at 1980 Can.$ 7,662,020. Landings of "other" species from inshore waters were valued at 1980 Can.$ 728,663. The vessels of the inshore fleet of Cape Sable Island are designed primarily for inshore lobstering in the winter months, when the season is open in that area. [*Fisherman's Information-1982,* Fisheries and Oceans Canada, p. 46; deposited with the Court by the United States in connection with its Counter-Memorial pursuant to Article 50(2) of the Rules of Court.] The summer fisheries for groundfish and "other" species are carried out largely from these same vessels, hence the landings of the fleet as a whole include all three species groups.

[2] The total value of all groundfish landed in District 32 in 1980 was 1980 Can.$ 11,025,382. [Appendix D.] Total groundfish landings were 22,075 metric tons, for an average price of 1980 Can.$ 499.45 per metric ton. Georges Bank landings by inshore vessels were 2,459 metric tons, which, when multiplied by the average price, yields 1980 Can.$ 1,228,147.50.

[3] This calculation assumes that there were no landings by inshore vessels of any species from offshore grounds other than groundfish from Georges Bank.

[4] Canadian Counter-Memorial, paras. 294, 308, 309, and 315.

[5] Appendix B.

southwest Nova Scotia [1], especially in view of the availability of ample and easily accessible alternate sources of groundfish for both the large and small-vessel fleets of southwest Nova Scotia [2].

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[1] The United States estimates that, even on Cape Sable Island, small vessels landed from Georges Bank only 20.9 per cent of the 1980 groundfish landings. [Appendix B.] This calls into question the accuracy of Canada's unsubstantiated reports that, "[o]f the 20 *or so* fish plants (*some* very small), *most* report that *the bulk of* their fish comes from Geeorges Bank", and of its speculative assertion that "*[p]robably* at least half of the total workforce engaged in fish processing would lose their jobs." [Canadian Counter-Memorial, para. 315; emphasis added.]

[2] United States Counter-Memorial, Annex 4, para. 58.

Appendix A to Annex 32

DISTRIBUTION OF THE 1980 GEORGES BANK GROUNDFISH CATCH WITHIN SOUTHWEST NOVA SCOTIA BY VESSEL CATEGORY (LANDINGS IN METRIC TONS)

[Not reproduced]

Appendix B to Annex 32

RELIANCE OF THE FISHERIES DISTRICTS OF SOUTHWEST NOVA SCOTIA UPON GROUNDFISH CAUGHT ON GEORGES BANK IN 1980 BY SMALL VESSELS (LANDINGS IN METRIC TONS)

[Not reproduced]

Appendix C to Annex 32

RELIANCE OF THE FISHERIES DISTRICTS OF SOUTHWEST NOVA SCOTIA UPON GROUNDFISH CAUGHT ON GEORGES BANK IN 1980 IN TERMS OF VALUE (CAN.$ 1980 × 1,000)

[Not reproduced]

Appendix D to Annex 32

NOVA SCOTIA INSHORE, OFFSHORE AND TOTAL LANDINGS BY DISTRICT FOR 1980
(VOLUME IN METRIC TONS, VALUE IN CAN.$ 1980)
(*Source*: Computer data base maintained by the Dept. of Fisheries and Oceans, Canada.)

[Not reproduced]

Appendix E to Annex 32

"PROTEST MOUNTS OVER 4X COD CLOSURE", *THE SOU'WESTER*,
1 AUGUST 1983, P. 2

[Not reproduced]

Annex 33

(40) (41) (110) (111) (184) (185) A TECHNICAL DESCRIPTION OF THE LIMITS, DISTANCES, AND AREAS USED IN THE PROPORTIONALITY TESTS DEPICTED AT FIGURES 34 AND 35 OF THE UNITED STATES MEMORIAL, FIGURES 24 AND 25 OF THE UNITED STATES COUNTER-MEMORIAL, AND FIGURES 2 AND 3 OF THE UNITED STATES REPLY

1. This Annex consists of three parts:

(40) (41) — Part I is a technical description of Figures 34 and 35 of the United States Memorial;

(110) (111) — Part II is a technical description of Figures 24 and 25 of the United States Counter-Memorial;

(184) (185) — Part III is a technical description of Figures 2 and 3 of the United States Reply.

PART I

2. Identical inner, lateral, and outer limits were used in the United States Memorial to apply the proportionality test to the adjusted perpendicular line proposed by the United States (Figure 34) and to the equidistant line (Figure 35). (40) (41)

SECTION 1. Coastline Lengths

A. UNITED STATES COASTLINE

3. The United States coastline was measured along the sinuosities of the coast, generally following the low-water line. Straight-line segments were measured from the southeasternmost point of Cape Cod to the northernmost point of Monomoy Island and from the southernmost point of Monomoy Island to the northeasternmost point of Nantucket Island. The total United States coastline employing this method is approximately 1,063 nautical miles. The following charts, produced by the National

Ocean Service, United States Department of Commerce, were used (all charts have a scale of 1:80,000):

CHART NUMBER
13325
13312
13302
13288
13286
13278
13267
13246
13237

B. CANADIAN COASTLINE

4. The Canadian coastline was measured along the sinuosities of the coast, following the low-water line, from a point northeast of Halifax [1] to Cape St. Marys. A straight-line measurement was made from Cape St. Marys to the international boundary terminus. The total Canadian coastline employing this method is approximately 692 nautical miles. The following charts, produced by the United States Defense Mapping Agency Hydrographic/Topographic Center, were used:

CHART NUMBER	SCALE
14083	1:145,000
14081	1:72,900
14066	1:72,905
14063	1:72,985
14064	1:72,950

United States-to-Canada Coastline Length Ratio: 1,063:692=61:39

SECTION 2. Limits for the Proportionality Test

5. Inner Limits: Coastlines described above.

Lateral Limits: Perpendiculars (144°) to the general direction of the coast (54°) drawn from Nantucket Island and from a point northeast of Halifax [2].

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[1] This point is determined by extending the perpendicular to the general direction of the coast drawn from the Chignecto Isthmus to the point at which it intersects the Atlantic seaboard of Nova Scotia. The geographical coordinates of this point are approximately 44°37'N, 63°17'W, as determined with reference to Canadian chart L/C 4003, 20 April 1979 edition, and the *Gazetteer* of Canada (Nova Scotia, 1979), p. 401.

[2] *See* n. 1, *supra*.

Outer Limit: Straight line connecting points on the lateral limits 200 nautical miles from the respective coastlines.

SECTION 3. Area Included in the Proportionality Test

6. The area enclosed by the above limits is approximately 118,018 square nautical miles[1], as measured on Canadian chart L/C 4003, edition of 20 April 1979. The following area calculations were made on this chart:

(40) *Figure 34:* The division of this area by the adjusted perpendicular line proposed by the United States (in square nautical miles):

United States=73,857
Canada=44,161

United States-to-Canada Area Ratio=73,857:44,161=63:37

(41) *Figure 35:* The division of this area by the equidistant line (in square nautical miles):

United States=42,821
Canada=75,197

United States-to-Canada Area Ratio=42,821:75,197=36:64

PART II

7. Identical inner, lateral, and outer limits were used in the United States Counter-Memorial to apply the proportionality test to both the (110) adjusted perpendicular line proposed by the United States (Figure 24) and (111) to the Canadian line (Figure 25).

SECTION 1. Coastline Lengths

8. The coastline lengths (in nautical miles) were measured in the following manner:

A. United States Coastline

International boundary terminus to Cape Ann	210
Cape Ann to Nantucket Island	84
Total	294

[1] This area omits the "Excluded Area", which is defined by two lines drawn from the agreed starting point—one perpendicular to the general direction of the coast, the other parallel to the general direction of the coast—to the respective coastlines.

B. Canadian Coastline

International boundary terminus to Cape Sable	100
Cape Sable to a point northeast of Halifax [1]	125
Total	225

United States-to-Canada Coastline Length Ratio=294:225=57:43

SECTION 2. Limits for the Proportionality Test

9. Inner Limits: Straight lines connecting the points described in Section 1.

Lateral Limits: Perpendiculars (144°) to the general direction of the coast (54°) drawn from Nantucket Island and from a point northeast of Halifax [1].

Outer Limit: 1000-fathom-depth contour as depicted on Canadian chart L/C 4003, edition of 20 April 1979.

SECTION 3. Area Included in the Proportionality Test

10. The area enclosed by the above limits is approximately 57,881 square nautical miles [2], as measured on Canadian chart L/C 4003, edition of 20 April 1979. The following area calculations were made on this chart:

(110) *Figure 24:* The division of this area by the adjusted perpendicular line proposed by the United States (in square nautical miles):

United States=35,912
Canada=21,969

United States-to-Canada Area Ratio=35,912:21,969=62:38

(111) *Figure 25:* The division of this area by the Canadian line (in square nautical miles):

United States=24,208
Canada=33,673

United States-to-Canada Area Ratio=24,208:33,673=42:58

PART III

11. Identical inner, lateral, and outer limits are used in the United States Reply to apply the proportionality test to the line proposed by the (184)(185) United States in 1976 (Figure 2) and to the 1976 Canadian line (Figure 3).

[1] *See* p. 2, n. 1, *supra*.

[2] *See* p. 3, n. 1, *supra*.

SECTION 1. Coastline Lengths

12. The coastline lengths (in nautical miles) were measured in the following manner:

A. United States Coastline

International boundary terminus to Cape Ann	210
Cape Ann to Nantucket Island	84
Total	294

B. Canadian Coastline

International boundary terminus to Cape Sable	100
Cape Sable to a point northeast of Halifax [1]	125
Total	225

United States-to-Canada Coastline Length Ratio=294:225=57:43

SECTION 2. Limits for the Proportionality Test

13. Inner Limits: Straight lines connecting the points described above.

Lateral Limits: Perpendiculars (144°) to the general direction of the coast (54°) drawn from Nantucket Island and from a point northeast of Halifax [1].

Outer Limit: 1000-fathom-depth contour as depicted on Canadian chart L/C 4003, edition of 20 April 1979.

SECTION 3. Area Included in the Proportionality Test

14. The area enclosed by the above limits is approximately 57,881 square nautical miles [2], as measured on Canadian chart L/C 4003, edition of 20 April 1979. The following area calculations were made on this chart:

(184) *Figure 2:* The division of this area by the line proposed by the United States in 1976 (in square nautical miles):

United States=31,181
Canada=26,700
United States-to-Canada Area Ratio=31,181:26,700=54:46

(185) *Figure 3:* The division of this area by the 1976 Canadian line (in square nautical miles):

United States=26,037
Canada=31,844

United States-to-Canada Area Ratio=26,037:31,844=45:55

[1] *See* p. 2, n. 1, *supra.*

[2] *See* p. 3, n. 1, *supra.*

Annex 34

Technical Information Associated with the Application of the Proportionality Test in the Restricted Area Limited by the Coastlines between Nantucket Island and Cape Sable

1. This Annex consists of five tables and one figure.

2. Table A indicates the results achieved when the proportionality test is applied to the claims set forth by the Parties in 1976 in an area defined as follows: the outer limit is the 200-nautical-mile limit as measured from the respective national baselines; the lateral limits are perpendiculars to the general direction of the coast drawn from Nantucket Island and Cape Sable; and, the coastline is measured by five alternate methods.

3. Table B indicates the results achieved when the proportionality test is applied to the claims set forth by the Parties in 1976, in an area defined as follows: the outer limit is the 1,000-fathom-depth contour; the lateral limits are perpendiculars to the general direction of the coast drawn from Nantucket Island and Cape Sable; and, the coastline is measured by five alternate methods.

4. Table C describes the area calculations reflected in Tables A and B.

5. Table D describes five alternative methods for measuring the length of the coastline between Nantucket Island and Cape Sable.

6. Table E lists the coastal points used in the five alternate methods employed in measuring the coastline between Nantucket Island and Cape Sable.

(204) 7. Figure 1: "United States and Canadian Coastal Points Referred to in This Annex for the Purpose of Measuring the Coastline Between Nantucket Island and Cape Sable under the Proportionality Test". This figure depicts the coastal points referred to in Table E of this Annex.

TABLE A

UNITED STATES-TO-CANADA PROPORTIONALITY RATIOS

Lateral Limits: Perpendicular (144°) to the General Direction of the Coast (54°) at Nantucket Island and at Cape Sable, Nova Scotia.

Outer Limit: 200 nautical miles measured from the coastlines.

		United States: Canada Division of Area	
Coastline Method [1]	Coastline Length Ratio [1]	1976 United States Claim [2]	1976 Canadian Claim [2]
1. Single-line	71:29	57:43	47:53
2. Two/one-line (U.S.-2, Can.-1)	75:25	62:38	54:46
3. Three-line	75:25	64:36	56:44
4. Twelve/three-line (U.S.-12, Can.-3)	77:23	65:35	56:44
5. Equidistant basepoint-line	70:30	61:39	52:48

[1] A description of the coastline methodology and the distances involved is provided in Table D of this Annex.
[2] A description of the area measurements is provided in Table C of this Annex.

TABLE B

UNITED STATES-TO-CANADA PROPORTIONALITY RATIOS

Lateral Limits:	Perpendicular (144°) to the General Direction of the Coast (54°) at Nantucket Island and at Cape Sable, Nova Scotia.
Outer Limit:	1000-Fathom-Depth Contour.

		United States:Canada Division of Area	
Coastline Method [1]	**Coastline Length Ratio** [1]	**1976 United States Claim** [2]	**1976 Canadian Claim** [2]
1. Single-line	71:29	67:33	53:47
2. Two/one-line (U.S.-2, Can.-1)	75:25	74:26	61:39
3. Three-line	75:25	76:24	64:36
4. Twelve/three-line (U.S.-12, Can.-3)	77:23	76:24	65:35
5. Equidistant basepoint-line	70:30	73:27	59:41

[1] A description of the coastline methodology and the distances involved is provided in Table D of this Annex.
[2] A description of the area measurements is provided in Table C of this Annex.

TABLE C

AREA CALCULATIONS

All area measurements were calculated on Canadian chart L/C-4003, 20 April 1979 edition. Because the scale of the chart changes at each parallel of latitude, the following scales were used in the given areas:

Area of chart	Scale
South of 40°N	1:1,144,000
40°N to 42°N	1:1,123,000
42°N to 44°N	1:1,090,000
North of 44°N	1:1,065,000

All areas are in square nautical miles and rounded to the nearest 50 square nautical miles.

CALCULATIONS FOR TABLE A

Coastline Method	United States:Canada Division of Area — 1976 United States Claim (Total Area)[1]	United States:Canada Division of Area — 1976 Canadian Claim (Total Area)[1]
1. Single-line	31,850 : 24,100	28,300 : 31,350
	57:43 = 1.32:1	47:53 = 0.90:1
	(55,950)	(59,650)
2. Two/one-line (U.S.-2, Can.-1)	39,900 : 24,150	36,300 : 31,450
	62:38 = 1.65.1	54:46 = 1.15:1
	(64,050)	(67,750)
3. Three-line	43,100 : 23,950	39,550 : 31,200
	64:36 = 1.80:1	56:44 = 1.27:1
	(67,050)	(70,750)
4. Twelve/three (U.S.-12, Can.-3)	43,600 : 23,950	40,050 : 31,200
	65:35 = 1.82:1	56:44 = 1.28:1
	(67,550)	(71,250)
5. Equidistant basepoint-line	36,950 : 23,500	33,350 : 30,800
	61:39 = 1.57:1	52:48 = 1.08.1
	(60,450)	(64,150)

[1] There are different total areas for the two claims because use of the 200-nautical-mile limit as the outer limit for the proportionality test raises the "grey area" issue (which may be dealt with by the Parties under Article VII of the Special Agreement). *See* United States Reply, paras. 243-245.

CALCULATIONS FOR TABLE B

	Coastline Method	Total Area	United States:Canada Division of Area — 1976 United States Claim	1976 Canadian Claim
1.	Single-line	34,300	23,150 : 11,150	18,050 : 16,250
			67:33 = 2.08:1	53:45 = 1.11:1
2.	Two/one-line (U.S.-2, Can.-1)	42,400	31,200 : 11,200	26,050 : 16,350
			74:26 = 2.79:1	61:39 = 1.59:1
3.	Three-line	45,450	34,450 : 11,000	29,300 : 16,150
			76:24 = 3.13:1	64:36 = 1.81:1
4.	Twelve/three line (U.S.-12, Can.-3)	45,900	34,900 : 11,000	29,750 : 16,150
			76:24 = 3.17:1	65:35 = 1.84:1
5.	Equidistant basepoint-line	38,900	28,250 : 10,650	23,100 : 15,800
			73:27 = 2.65:1	59:41 = 1.46:1

TABLE D

COASTLINE LENGTHS

For purposes of the proportionality test, simplified coastlines may be used to measure the coastline length. Five alternate methods of simplifying the coastline between Nantucket Island and Cape Sable are described hereinafter.

All distances are in nautical miles calculated on geodetic lines, using the 1866 Clarke spheroid and 1927 North American datum. Letters and (204) numbers in parentheses refer to symbols depicted on Figure 1.

1. **Single-line coastline** **Length**

United States:
International boundary terminus (A)
to Nantucket Island (V) = 249

Canada:
International boundary terminus (A)
to Cape Sable (15) = 100

Ratio: 249:100 = 71:29 = 2.49:1

2. **Two/one-line coastline**

United States:
International boundary terminus (A)
to Cape Ann (P) = 210
Cape Ann (P) to Nantucket Island (V) = 84
Total 294

Canada:
International boundary terminus (A)
to Cape Sable (15) = 100

Ratio: 294:100 = 75:25 = 2.94:1

3. **Three-line coastline**

United States:

International boundary terminus (A) to Cape Elizabeth (N)	=	160
Cape Elizabeth (N) to Cape Ann (P)	=	63
Cape Ann (P) to Nantucket Island (V)	=	84
Total		307

Canada:

International boundary terminus (A) to Whipple Point (8)	=	39
Whipple Point (8) to Cape Fourchu (10)	=	28
Cape Fourchu (10) to Cape Sable (15)	=	34
Total		101

Ratio: 307:101 = 75:25 = 3.04:1

4. **Twelve/three-line coastline (U.S.-12, Can.-3)**

United States:

International boundary terminus (A) to Great Wass Island (H)	=	35
Great Wass Island (H) to Mount Desert Island (I)	=	35
Mount Desert Island (I) to Marshall Point (L)	=	44
Marshall Point (L) to Cape Elizabeth (N)	=	46
Cape Elizabeth (N) to Portsmouth (O)	=	36
Portsmouth (O) to Cape Ann (P)	=	30
Cape Ann (P) to Boston (Q)	=	20
Boston (Q) to Scituate (R)	=	15
Scituate (R) to Plymouth (S)	=	13
Plymouth (S) to Cape Cod (Provincetown-T)	=	20
Cape Cod (Provincetown-T) to Cape Cod (Nauset Beach-U)	=	19
Cape Cod (Nauset Beach-U) to Nantucket Island (V)	=	32
Total		345

Canada:

Canadian three-line coastline described in para. 3, *supra*		
Total	=	101

Ratio: 345:101 = 77:23 = 3.42:1

5. **Equidistant Basepoint coastline**

United States:

Sail Rock (B) to unnamed Peninsula (C)	=	10
Unnamed Peninsula (C) to Long Point (D)	=	1
Long Point (D) to North Rock (E)	=	8
North Rock (E) to Machias Seal Island (F)	=	2
Machias Seal Island (F) to Machias Seal Island (G)	=	1
Machias Seal Island (G) to Mount Desert Rock (J)	=	54
Mount Desert Rock (J) to Mount Desert Rock (K)	=	0.2
Mount Desert Rock (K) to Matinicus Rock (M)	=	33
Matinicus Rock (M) to Cape Cod (Nauset Beach-U)	=	128
Cape Cod (Nauset Beach-U) to Nantucket Island (V)	=	32
Total		269.2

Canada:

Grand Manan Island (1) to Grand Manan Island (2)	=	2
Grand Manan Island (2) to Grand Manan Island (3)	=	1
Grand Manan Island (3) to Grand Manan Island (4)	=	0.2
Grand Manan Island (4) to Grand Manan Island (5)	=	4
Grand Manan Island (5) to Grand Manan Island (6)	=	0.2
Grand Manan Island (6) to Yellow Ledge (7)	=	11
Yellow Ledge (7) to Gull Rock (9)	=	26
Gull Rock (9) to Cape Fourchu (10)	=	26
Cape Fourchu (10) to Gannet Rock (11)	=	10
Gannet Rock (11) to Devils Limb (12)	=	15
Devils Limb (12) to Seal Island (13)	=	1
Seal Island (13) to Seal Island (14)	=	0.5
Seal Island (14) to Cape Sable (15)	=	17
Total		113.9

Ratio: 269:114 = 70:30 = 2.36:1

TABLE E

COASTAL POINTS

This table lists the coastal points that were used to measure the coastline in the five alternate methods presented in Table D. This list includes: the geographic coordinates for each basepoint, the source from which the coordinate values were derived, and the (204) letter or number symbol that depicts the basepoint on Figure 1 of this Annex.

UNITED STATES COASTAL POINTS

Letter/Number on Figure 1 (204)	Geographical Location Name	Coordinates	Source [1]
A	International boundary terminus	44° 46'35."346N 66° 54'11."253W	U.S.-Canada Agreement
B	Sail Rock, Me.	44° 48'.73N 66° 56'.77W	NOS 13325, 11th ed., 1 May 1982
C	Unnamed Peninsula, Me.	44° 41'.37N 67° 08'.25W	NOS 13325, 11th ed., 1 May 1982
D	Long Point, Me.	44° 40'.10N 67° 09'.22W	NOS 13325, 11th ed., 1 May 1982
E	North Rock, Me.	44° 32'.25N 67° 05'.17W	NOS 13325, 11th ed., 1 May 1982
F	Machias Seal Island, Me.	44° 30'.40N 67° 05'.63W	NOS 13325, 11th ed., 1 May 1982
G	Machias Seal Island, Me.	44° 29'.97N 67° 06'.08W	NOS 13325, 11th ed., 1 May 1982

[1] NOS refers to charts produced by the National Ocean Service, United States Department of Commerce.

(204)

Letter/Number on Figure 1	Geographical Location Name	Geographical Location Coordinates	Source
H	Great Wass Island, Me.	44° 26′.98N 67° 34′.77W	NOS 13325, 11th ed., 1 May 1982
I	Mount Desert Island, Me.	44° 13′.30N 68° 20′.30W	NOS 13312, 17th ed., 2 May 1981
J	Mount Desert Rock, Me.	43° 58′.18N 68° 07′.53W	NOS 13312, 17th ed., 2 May 1981
K	Mount Desert Rock, Me.	43° 58′.03N 68° 07′.62W	NOS 13312, 17th ed., 2 May 1981
L	Marshall Point, Me.	43° 55′.00N 69° 15′.60W	NOS 13302, 14th ed., 26 Feb. 1983
M	Matinicus Rock, Me.	43° 46′.95N 68° 51′.32W	NOS 13302, 14th ed., 26 Feb. 1983
N	Cape Elizabeth, Me.	43° 33′.90N 70° 11′.80W	NOS 13288, 27th ed., 12 Feb. 1983
O	Portsmouth, N.H.	43° 04′.52N 70° 40′.00W	NOS 13286, 23rd ed., 9 Apr. 1983
P	Cape Ann, Ma.	42° 34′.76N 70° 39′.65W	NOS 13278, 19th ed., 5 Mar. 1983
Q	Boston, Ma.	42° 21′.47N 70° 59′.19W	NOS 13267, 22nd ed., 17 Oct. 1981
R	Scituate, Ma.	42° 12′.20N 70° 42′.80W	NOS 13267, 22nd ed., 17 Oct. 1981
S	Plymouth, Ma.	42° 00′.25N 70° 36′.00W	NOS 13246, 26th ed., 17 July 1982
T	Cape Cod (Provincetown, Ma.)	42° 04′.75N 70° 10′.00W	NOS 13246, 26th ed., 17 July 1982

(204)

Letter/Number on Figure 1	*Geographical Location* Name	Coordinates	Source
U	Cape Cod (Nauset Beach, Ma.)	41° 48′.60N 69° 56′.00W	NOS 13246, 26th ed., 17 July 1982
V	Nantucket Island, Ma.	41° 16′.70N 69° 57′.70W	NOS 13237, 30th ed., 18 June 1983

CANADIAN COASTAL POINTS

(204)

Letter/Number on Figure 1	Geographical Location Name	Coordinates	Source
A	International boundary terminus	44° 46′35″.346N 66° 54′11″.253W	U.S.-Canada Agreement
1	Grand Manan Island	44° 45′.62N 66° 50′.10W	*The Canada Gazette*, Part I, 26 Dec. 1970 [1]
2	Grand Manan Island	44° 44′.17N 66° 51′.18W	*The Canada Gazette*, Part I, 26 Dec. 1970
3	Grand Manan Island	44° 43′.38N 66° 51′.87W	*The Canada Gazette*, Part I, 26 Dec. 1970
4	Grand Manan Island	44° 43′.18N 66° 51′.87W	*The Canada Gazette*, Part I, 26 Dec. 1970
5	Grand Manan Island	44° 39′.68N 66° 53′.45W	*The Canada Gazette*, Part I, 26 Dec. 1970
6	Grand Manan Island	44° 39′.45N 66° 53′.53W	*The Canada Gazette*, Part I, 26 Dec. 1970
7	Yellow Ledge	44° 29′.02N 66° 51′.08W	*The Canada Gazette*, Part I, 26 Dec. 1970
8	Whipple Point	44° 14′.20N 66° 23′.80W	*The Canada Gazette*, Part II, 9 May 1972 [1]
9	Gull Rock	44° 12′.52N 66° 23′.40W	*The Canada Gazette*, Part II, 9 May 1972

[1] The coordinates listed in *The Canada Gazette*, which use seconds of arc, have been converted to decimal fractions of minutes of arc.

(204)

Letter/Number on Figure 1	Geographical Location Name	Coordinates	Source
10	Cape Fourchu	43° 47'.97N 66° 10'.23W	*The Canada Gazette,* Part II, 9 May 1972
11	Gannet Rock	43° 38'.43N 66° 08'.98W	*The Canada Gazette,* Part II, 9 May 1972
12	Devils Limb	43° 24'.18N 66° 02'.33W	*The Canada Gazette,* Part II, 9 May 1972
13	Seal Island	43° 23'.57N 66° 01'.13W	*The Canada Gazette,* Part II, 9 May 1972
14	Seal Island	43° 23'.48N 66° 00'.48W	*The Canada Gazette,* Part II, 9 May 1972
15	Cape Sable	43° 23'.30N 65° 37'.17W	*The Canada Gazette,* Part II, 9 May 1972

Annex 35

A DISCUSSION OF THE USE OF RHUMB LINES AND GEODETIC LINES IN THIS CASE

1. The purpose of this Annex is to respond to the statements in the Canadian Counter-Memorial that the United States has acted contrary to the express terms of the Special Agreement through its use of charts that depict rhumb lines, rather than geodetic lines, to show the general direction of the coast [1]. Not only is Canada mistaken in its interpretation of the Special Agreement, but it is inconsistent in raising such an assertion, inasmuch as Canada itself has used rhumb lines in its Memorial and Counter-Memorial.

2. A *rhumb line is a line that crosses successive meridians at a constant* angle. On a Mercator map projection, a rhumb line is a straight line. On other map projections, it is curved. A geodetic line (also known as a geodesic) is the shortest distance between any two points on the surface of a spheroid. A geodetic line changes direction continuously as it crosses successive meridians, unless it is drawn along the Equator. On a Mercator projection, a geodetic line is curved unless it is drawn along the Equator or along a meridian, whereas on certain other projections, including a Lambert Conformal projection, it appears to be straight [2].

3. In criticizing the use of rhumb lines in the United States Memorial, Canada cites Article IV of the Special Agreement. Article IV states in pertinent part that:

> "... the Parties in their presentations to the Chamber shall utilize ... the following technical provisions:
>
> . . . .
>
> (b) All straight lines shall be geodetic lines [3]".

The United States does not interpret this part of the Special Agreement to require the use of geodetic lines in every chart used by the Parties to present their cases, but only to require that the boundaries proposed by the Parties consist of geodetic lines. Such an interpretation is consistent

[1] Canadian Counter-Memorial, para. 91.

[2] For instance, Fig. 7 of the Canadian Memorial depicts the general direction of the coast by straight lines on a Lambert Conformal projection. Those straight lines approximate arcs of great circles, which in turn approximate geodetic lines.

[3] Special Agreement, Article IV.

with other provisions of the Special Agreement that request the Chamber to "describe the course of the maritime boundary in terms of geodetic lines [1]" and to depict the boundary on charts "in accordance with Article IV [1]".

4. This interpretation of Article IV also is suggested by the history of the negotiation of the Special Agreement, which took place following the decision of 14 March 1978 of the Court of Arbitration in the *Anglo-French Arbitration* [2]. That decision concerned, in part, a disagreement relating to the use of rhumb lines or geodetic lines in applying the Court of Arbitration's decision of 30 June 1977. In negotiating the terms of the Special Agreement, the Parties sought to ensure that similar disagreements did not arise in this case and that the final boundary to be determined by the Court would be described in as precise a manner as possible.

5. The United States, therefore, believes that it has satisfied the requirements of Article IV by proposing that "the boundary should consist of geodetic lines [3]" connecting certain geographic coordinates.

6. Article IV of the Special Agreement was not intended to hinder the clear and concise presentation of the Parties' cases to the Court. For example, the general direction of the coast must be described in terms of a line that maintains a constant direction. This can be achieved only by use of a rhumb line. Thus, the United States depicts straight lines on a Mercator projection (rhumb lines) to illustrate this aspect of the case. (7) Figure 7 of the Canadian Memorial, however, uses geodetic lines to illustrate general directions of the coast. Canada describes the line that passes through the Gulf of Maine area as having a course of 67 degrees [4]. This reasonably leads one to believe that, throughout its course, the line maintains a constant bearing of 67 degrees, which technically is not possible. As the United States noted in its Counter-Memorial [5], Canada's 67-degree direction actually is an average of a number of different directions along Canada's line from Long Island to Cape Race. These directions range from 61 to 74 degrees. In the Cape Cod-to-Cape Sable

[1] Special Agreement, Article II(2).

[2] Decision of the Court of Arbitration of 14 March 1978 Concerning the Arbitration Between the United Kingdom of Great Britain and Northern Ireland and the French Republic on the Delimitation of the Continental Shelf.

[3] United States Memorial, Submissions, p. 215; United States Counter-Memorial, Submissions, p. 271.

(49) [4] Canadian Counter-Memorial, para. 94; Fig. 6.

[5] United States Counter-Memorial, para. 22, n. 1.

portion of the line, the directions range between 63 and 65 degrees. Accordingly, for purposes of precision and clarity of presentation, a rhumb line better illustrates a line of direction.

7. In most of its Memorial and Counter-Memorial, Canada itself has shown rhumb lines rather than geodetic lines. Of the 99 maps produced by Canada in its pleadings, 68 are on a Mercator projection, seven are on a Lambert Conformal projection, and 24 are unidentified. All of the straight lines on the Mercator projection maps are, by definition, rhumb (50) lines, not geodetic lines. For example, Figure 7 of the Canadian Counter-Memorial depicts the general direction of the coast between Casco Bay and the Chignecto Isthmus not with a geodetic line [1], but with a rhumb (48) line. At Figure 5 of its Counter-Memorial, Canada shows an "extension of the final azimuth of the international boundary [2]". As this is a straight line depicting a constant compass direction on a Mercator projection, it also is a rhumb line, not a geodetic line [3]. An additional example is the chart included in the pocket part of the Canadian Memorial. It is a Mercator projection upon which are shown straight, or rhumb lines. Canada's own practice thus confirms that Article IV should be interpreted as it has been by the United States, and that it should not be interpreted in the excessively restrictive manner suggested by Canada in its Counter-Memorial.

8. The United States does not believe that any material distortion has been created by either Party through the use of rhumb lines in its presentations to the Court. Considerations of scale must be taken into account. Lines depicted upon the small, page-size charts used by the Parties in this case will appear to be essentially identical regardless of whether they are rhumb lines or geodetic lines. The United States will continue to explain any calculation based upon line distances or directions in order to prevent any possible confusion.

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(50) [1] Fig. 7 of the Canadian Counter-Memorial follows immediately upon Canada's criticisms of the United States Memorial in this regard. *See* Canadian Counter-(49) Memorial, Fig. 6 and paras. 91-94.

(48) [2] This figure, in which Canada depicts a general direction, immediately precedes Canada's criticism of the United States Memorial in this regard.

[3] In fact, the initial geodetic azimuth between the final two points on the international boundary is 34°42′ (measured from south), which corresponds to 214°42′ (measured from north). By definition, this azimuth changes continuously, even along the final segment of the international boundary, which is 2,383 meters in length. *See* Special Report No. 3 of the International Boundary Commission, *Revised Data from the Source of the St. Croix River to the Atlantic Ocean and Maintenance on this Section from 1925 to 1961*, 1962, p. 496. Turning point 14 is 44°47′38.819″N., 66°53′09.554″W.; Turning Point 15 .(Terminus) is 44°46′35.346″N., 66°54′11.253″W.

Annex 36

CERTIFICATION

I, the undersigned, Davis R. Robinson, Agent of the United States of America, hereby certify that each document included in the Reply or Annexes submitted by the United States of America is an accurate transcription, reproduction, or representation.

(Signed) ____________________

DAVIS R. ROBINSON
Agent of the United States
of America