

INTERNATIONAL COURT OF JUSTICE

PLEADINGS, ORAL ARGUMENTS, DOCUMENTS

**CASE CONCERNING DELIMITATION  
OF THE MARITIME BOUNDARY  
IN THE GULF OF MAINE AREA**

(CANADA/UNITED STATES OF AMERICA)

VOLUME VIII

Maps, Charts and Illustrations



COUR INTERNATIONALE DE JUSTICE

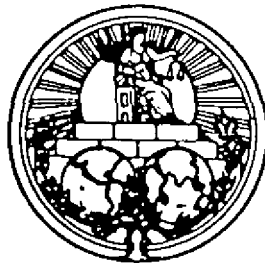
MÉMOIRES, PLAIDOIRIES ET DOCUMENTS

**AFFAIRE DE LA DÉLIMITATION  
DE LA FRONTIÈRE MARITIME  
DANS LA RÉGION DU GOLFE DU MAINE**

(CANADA/ÉTATS-UNIS D'AMÉRIQUE)

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Cartes et illustrations



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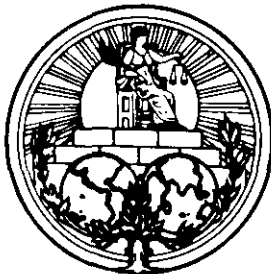


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*Annex 19*

- (193) Application of the equidistance method giving “half effect” to the southwestern coast of Nova Scotia.

*Analytical Annexes (Vol. II)*

*Annex 21*

- (194) Figure 1. A: Herring tagging studies, showing extensive movement from the Bay of Fundy throughout the Gulf of Maine area and beyond (Canadian Counter-Memorial, Annexes, Vol. I, Fig. 53). B: Herring tagging studies (Canadian Fig. 53 with numbers added to reflect the number of herring recaptures represented by each arrow and by the band along the coast of Nova Scotia).
- (89) Figure 2. Canadian offshore lobster fishing areas in the Gulf of Maine. (Canadian Counter-Memorial, Annexes, Vol. I, Fig. 40.)
- (195) Figure 3. Canadian offshore lobster fishing areas as actually drawn by Canadian scientists Stasko and Pye.
- (196) Figure 4. Concentrations of commercial fishing effort as actually drawn by Canadian scientists Stasko and Pye.

- (90) Figure 5. Lobster tag returns, showing extensive migrations from Port Maitland, Nova Scotia throughout the Gulf of Maine area. (Canadian Counter-Memorial, Annexes, Vol. I, Fig. 41.)
- (197) Figure 6. Recapture points for 30 tagged lobster out of more than 14,000 lobster recaptured.

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- Figure 1. Geographic distribution of spider crab *hyas coarctatus*. (Source: Williams and Wigley, 1977, p. 25.)
- Figure 2. Geographic distribution of shrimp *crangon septemspinosa*. (Source: *Ibid.*, p. 20.)
- Figure 3. Geographic distribution of bivalve *astarte castanea*. (Source: Theroux and Wigley, 1983, p. 73, Fig. 11.)
- (198) Figure 4. Geographic distribution of hermit crab *pagurus acadianus*.
- Figure 5. Geographic distribution of bivalve *cyclocardia* (= *venericardia borealis*). (Source: Theroux and Wigley, 1983, p. 86, Fig. 38.)
- Figure 6. Geographic distribution of bivalve *musculus discors*. (Source: *Ibid.*, p. 100, Fig. 65.)
- Figure 7. Geographic distribution of shrimp *pandalus borealis*. (Source: Williams and Wigley, 1977, p. 34.)
- Figure 8. Geographic distribution of bivalve *arctica islandica*. (Source: Theroux and Williams, 1983, p. 71, Fig. 8.)
- Figure 9. Geographic distribution of rock crab *cancer irroratus*. (Source: Williams and Wigley, 1977, p. 18.)

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- (199) Figure 1. Temperature-salinity relationship for the Georges Bank and Scotian Shelf water masses.
- (200) Figure 2. Modification of Canadian Figure 14 showing sea-surface temperature patterns for selected waters of the southwestern Scotian Shelf, the Gulf of Maine Basin, and Georges Bank.
- (82) Figure 3. Surface temperatures and temperature gradients in June of four consecutive years.
- Figure 4. Surface temperatures and temperature gradients – January through December.
- Figure 5. Annual progression of temperatures in the water above the southwestern Scotian Shelf, the Gulf of Maine Basin, and Georges Bank – shown for forty years (1941-1980) in the uppermost 150 metres of the water column.

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- (201) Figure 1. United States landings of major groundfish (cod, haddock, yellowtail flounder) – 1981.
- (202) Figure 2. United States sea scallop landings – 1981; and United States sea scallop landings – yearly average for 1957-1962.

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- (203) Figure 1. Fisheries districts and county boundaries of Nova Scotia.

*Annex 34*

- (204) 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.

**Oral Arguments of Canada**

- (206) Figure 9. The Canadian line.
- (206) Figure 32. Comparison of the relative effects of a headland and a three-sided concavity on an equidistance line. A: Graph based upon the method employed in the argument of Professor Jaenicke of the Federal Republic of Germany in the *North Sea Continental Shelf* cases (*I.C.J. Pleadings*, Vol. II, p. 29), extended to 200 nautical miles (370 km) seaward of the coastline. United States Memorial, Figure 25. B: United States Memorial, Figure 25, and United States Reply, Figure 5, amended to show a three-sided concavity twice as wide as deep.
- (31) Figure 33. Close-up of Figure 32 comparison of the relative effects of a headland and a three-sided concavity on an equidistance line.
- (207)(206) Figure 37. The proximity test. A: Coastal fronts used in testing the relative proximity of Nova Scotia and the state of Maine to Georges Bank. B: Area of Nova Scotia that lies closer to the farthest point claimed by Canada on Georges Bank than does the coastal front of the state of Maine. C: Area of Nova Scotia that lies closer to the central part of the disputed area on Georges Bank than does the coastal front of the state of Maine. D: Area of Nova Scotia that lies closer to the northeast peak of Georges Bank than does the coastal front of the state of Maine.
- (221) Figure 43. Point "A" and the triangle as defined in Article II of the Special Agreement. [*This figure is identical to Figure 97, below.*]
- (209) Figure 56. Sea surface temperatures of the Gulf of Maine area.
- (210) Figure 61. Part of the permit map attached to the letter of 8 April 1965 from the Canadian Department of Northern Affairs and National Resources to the United States Department of the Interior depicted on a Canadian basemap of the Gulf of Maine area.
- (211) Figure 62. Part of the permit map attached to the letter of 30 August 1966 from the Canadian Department of External Affairs to the United States Embassy at Ottawa. Depicted on a Canadian basemap of the Gulf of Maine area.
- (212) Figure 72A. Seismic lines shot by Canadian licensees and permittees in the Gulf of Maine-Georges Bank area, 1965-1969.
- (213) Figure 72B. Seismic lines shot by Canadian licensees and permittees in the Gulf of Maine-Georges Bank area, 1970-1973.
- (214) Figure 72C. Seismic lines shot by Canadian licensees and permittees in the Gulf of Maine-Georges Bank area, 1974-1979.
- (215) Figure 72D. Canadian oil and gas permits in the Gulf of Maine-Georges Bank area.
- (216) Figure 74. The 1969 east coast joint survey.
- (217) Figure 76. Applications of the equidistance method in the Gulf of Maine area.

- ②18) Figure 77. The 1972 east coast joint survey: Canadian and United States extensions.
- ②19) Figure 79. The 1974 and 1975 east coast joint surveys: "Georges Bank" and "extensions".
- ②20) Figure 89. The "grey area": the Canadian line.
- ②21) Figure 97. The Canadian line and the 1982 United States boundary proposal.
- ②22) Figure 103. The Canadian line and the hypothetical Gulf of Maine closing line.
- ②23) Figure 104. The Canadian line, the strict equidistance line and the hypothetical Gulf of Maine closing line.

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- ②25) Figure 9. Figure showing a hypothetical concave coastline belonging to two States, with land boundary in the middle and equidistant line.
- ②26) Figure 10. Figure illustrating the effect of a rectangular concavity upon the course of the equidistant line.
- ②27) Figure 12. Figure illustrating that the equidistant line completely cuts off coast YX from the area seaward of the closing line.
- ②28) Figure 13. Figure showing turning points of the equidistant line with concavities of different depth-to-width proportional dimensions.
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- ②30) Figure 16. The extent and the inequity of the cut-off effect if an equidistant line were used in the Gulf of Maine area.
- ②31) Figure 21. Figure illustrating the effect of Maine and New Hampshire on the course of an equidistant line.
- ②32) Figure 29. Geometrical illustration of an equitable solution.
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- ②35) Figure 70. Seabed gradients – the rate of descent.
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- ②40) Figure 121. Coastal front extensions in the Gulf of Maine area: inner area.

- (241) Figure 122. Coastal front extensions in the Gulf of Maine area : outer area.
- (242) Figure 123. United States concept of the perpendicular extension of the coast of Maine.
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- (37) (244) Figure 136. The cut-off effect.
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- (247) Figure 143. Tripoint (turning point 50) of the Canadian line.
- (248) Figure 144. The Canadian line compared to a perpendicular to the hypothetical Gulf of Maine closing line at its midpoint.
- (249) Figure 148. The Canadian line, the due north line and the hypothetical Gulf of Maine closing line.
- (250) Figure 149. The United States law enforcement line to protect the lobster of the United States continental shelf (United States Memorial, Fig. 16) and the hypothetical Gulf of Maine closing line.
- (29) (251) Figure 150. Points of convergence.
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- (253) Figure 155. The relevant fishing coasts : Georges Bank.
- (210) Figure 156. Part of the permit map attached to the letter of 8 April 1965 from the Canadian Department of Northern Affairs and National Resources to the United States Department of the Interior depicted on a Canadian basemap of the Gulf of Maine area.
- (211) Figure 157. Part of the permit map attached to the letter of 30 August 1966 from the Canadian Department of External Affairs to the United States Embassy at Ottawa. Depicted on a Canadian basemap of the Gulf of Maine area.
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- (255) Figure 166. The statistical unit line and concentrations of cod, haddock and scallops on Georges Bank.
- (256) Figure 171. Canadian proportionality model A including only the Bay of Fundy coast that "faces" the "area in which the delimitation is to take place".

### Rejoinder of the United States of America

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- (258) Figure 90. Area of Atlantic Ocean covered by application for permit E1-65.
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  - ②61 Figure 95. Northeastern limits of area of Atlantic Ocean covered by application for permit E3-68.
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  - ②66 Figure 110. Chart showing that all of Georges Bank is within 200 nautical miles of the coast of Maine.
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  - ②68 Figure 122. Diagram showing a possible solution of delimitation of the equidistant line.
  - ②69 Figure 124. Proportionality test applied to the modified ICNAF line out to the 200-nautical-mile limit.
  - ②70 Figure 125. Proportionality test applied to the line proposed by the United States in 1976 out to the 200-nautical-mile limit.
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  - ②72 Figure 128. Chart demonstrating the point to stop the equidistant line.
  - ②73 Figure 130. Proportionality test applied to the perpendicular to the general direction of the coast ( $144^\circ$ ) at the point on the Gulf of Maine closing line three-fourths the distance from Nantucket to Cape Sable out to the 200-nautical-mile limit.
-

**MAPS, CHARTS AND  
ILLUSTRATIONS**

**CARTES  
ET ILLUSTRATIONS**



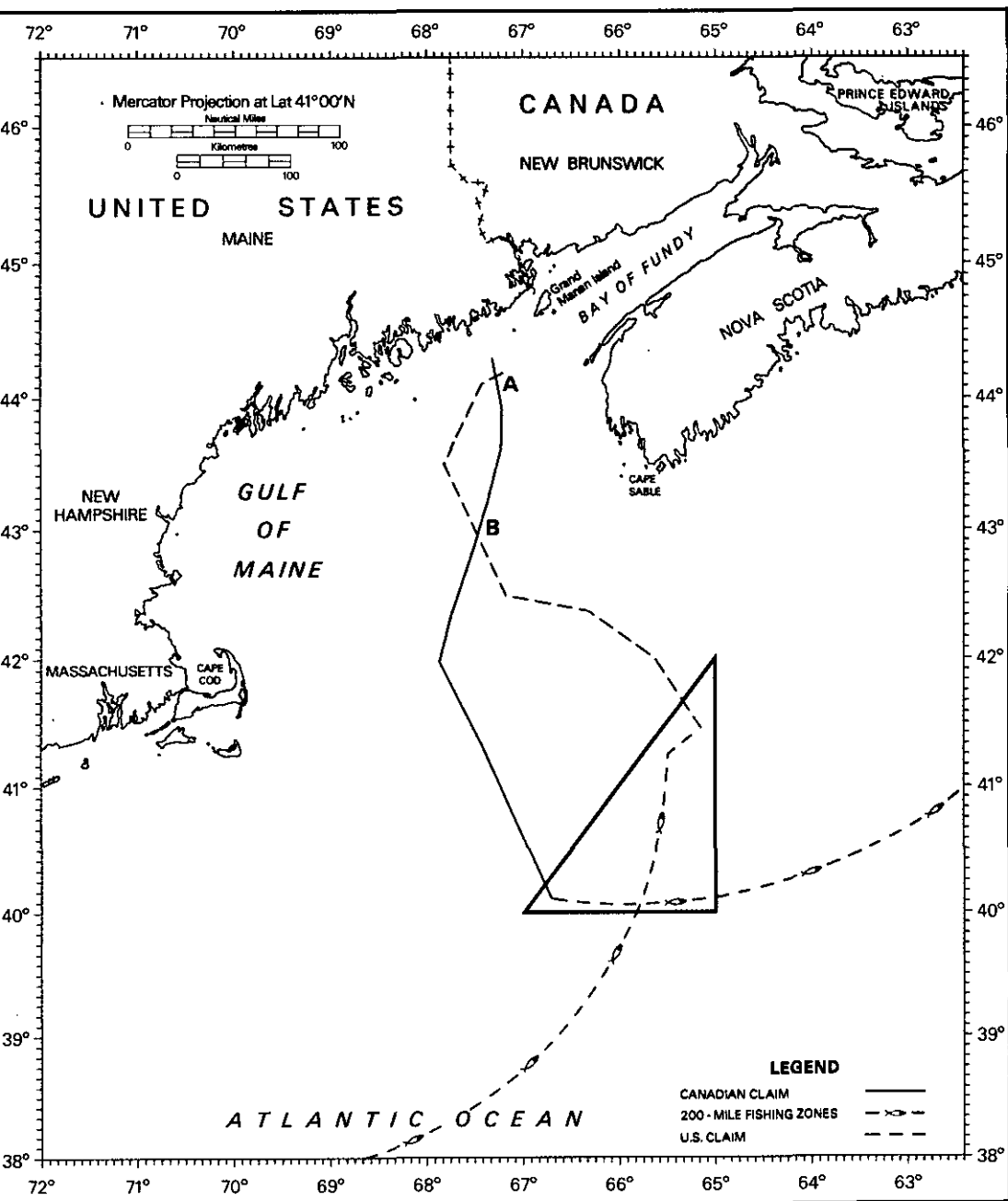


Figure 1: Claims of the Parties at 29 March 1979

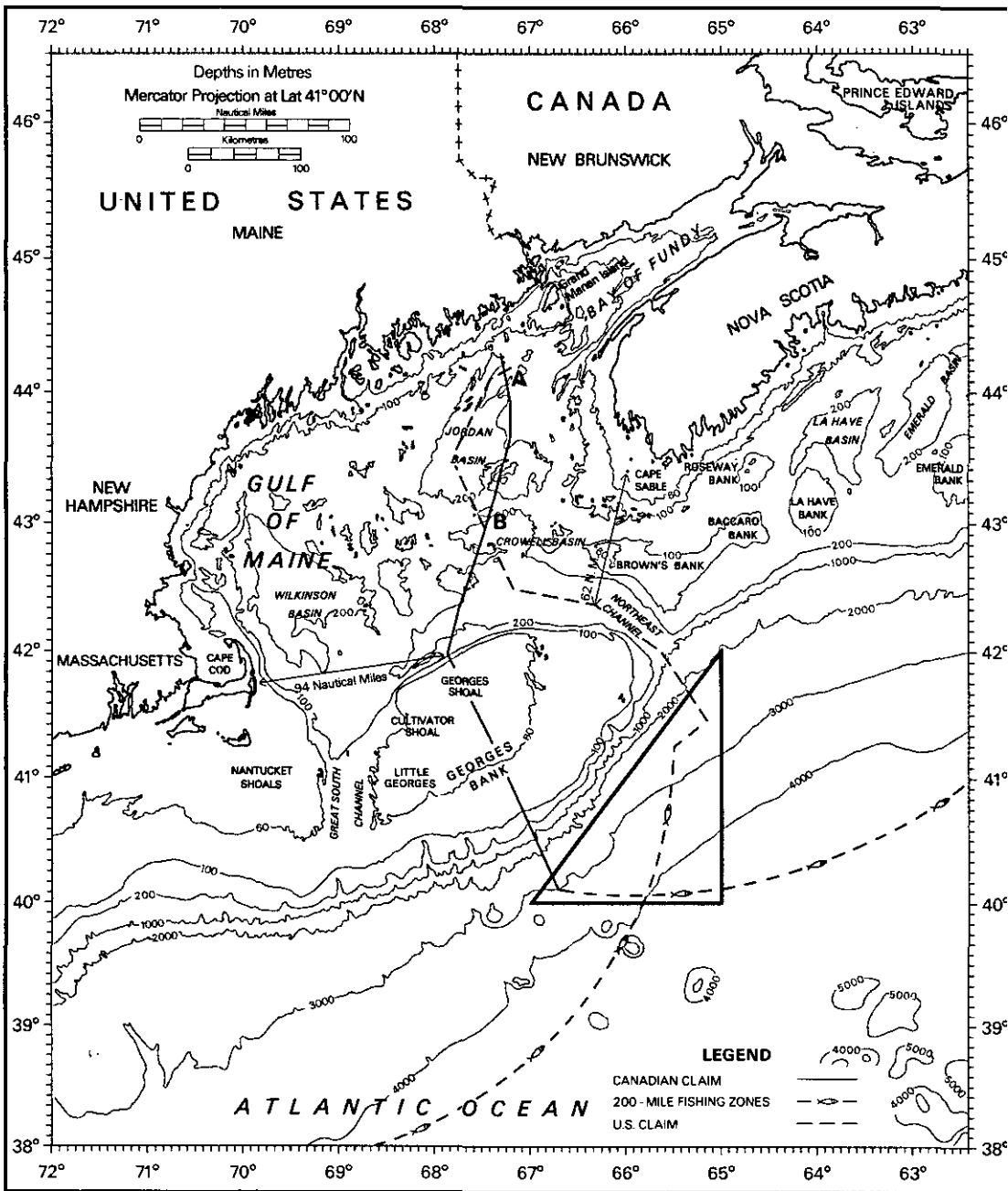


Figure 2: Claims of the Parties at 29 March 1979 and bathymetry of the Gulf of Maine area

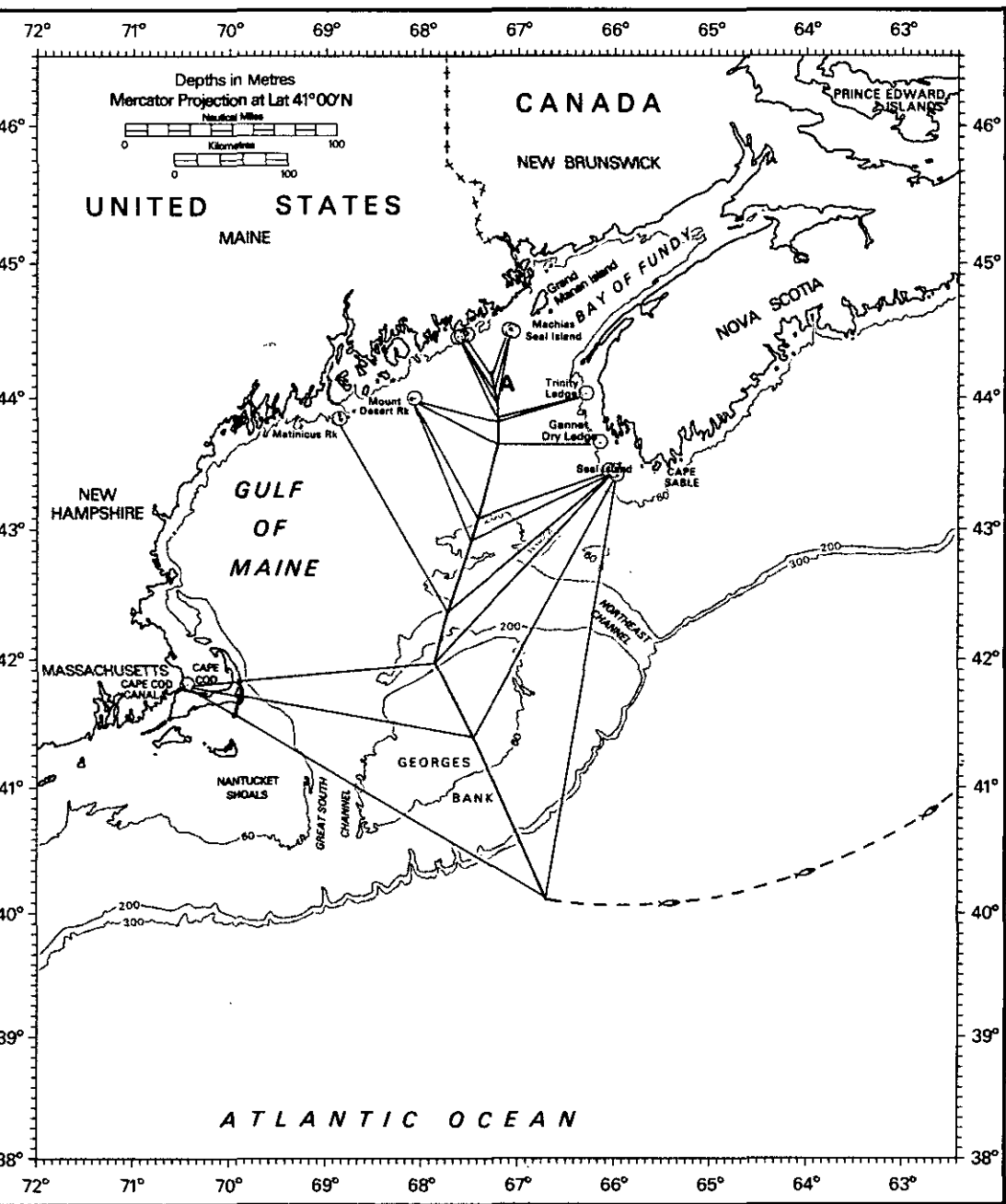


Figure 3: Construction of the Canadian line

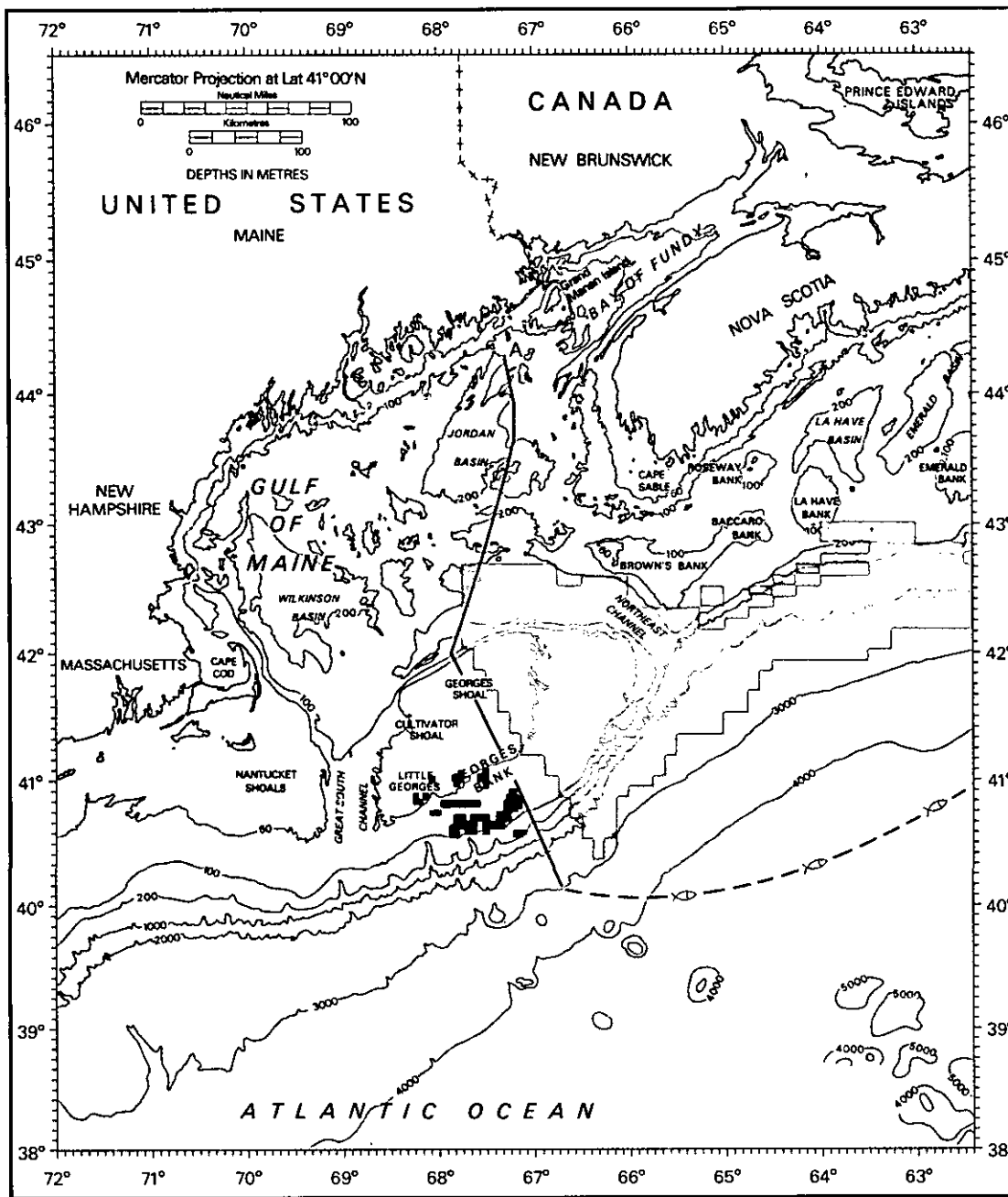


Figure 4: Outstanding offshore oil and gas permits

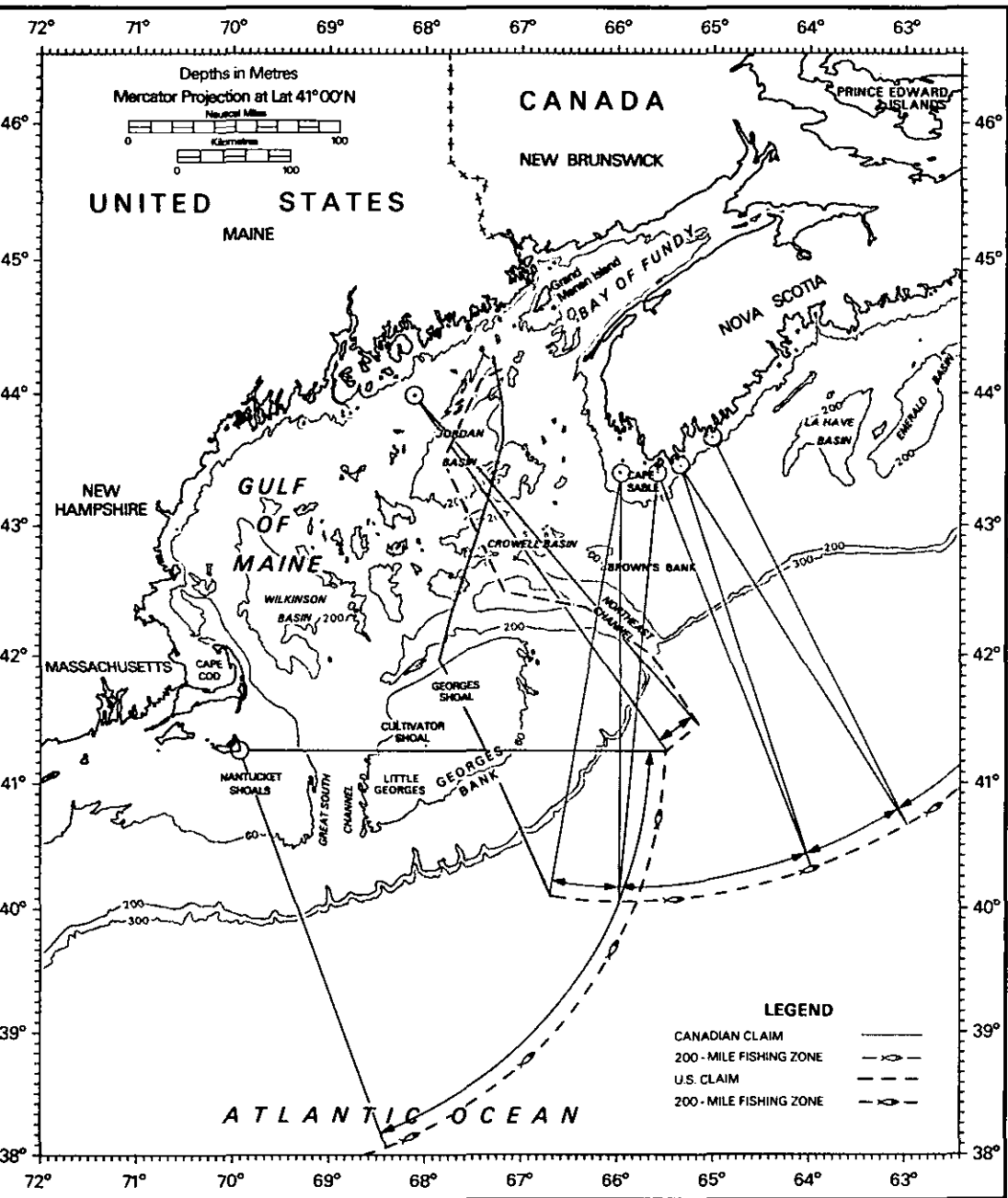


Figure 5: Construction of the Parties' 200-mile fishing zones

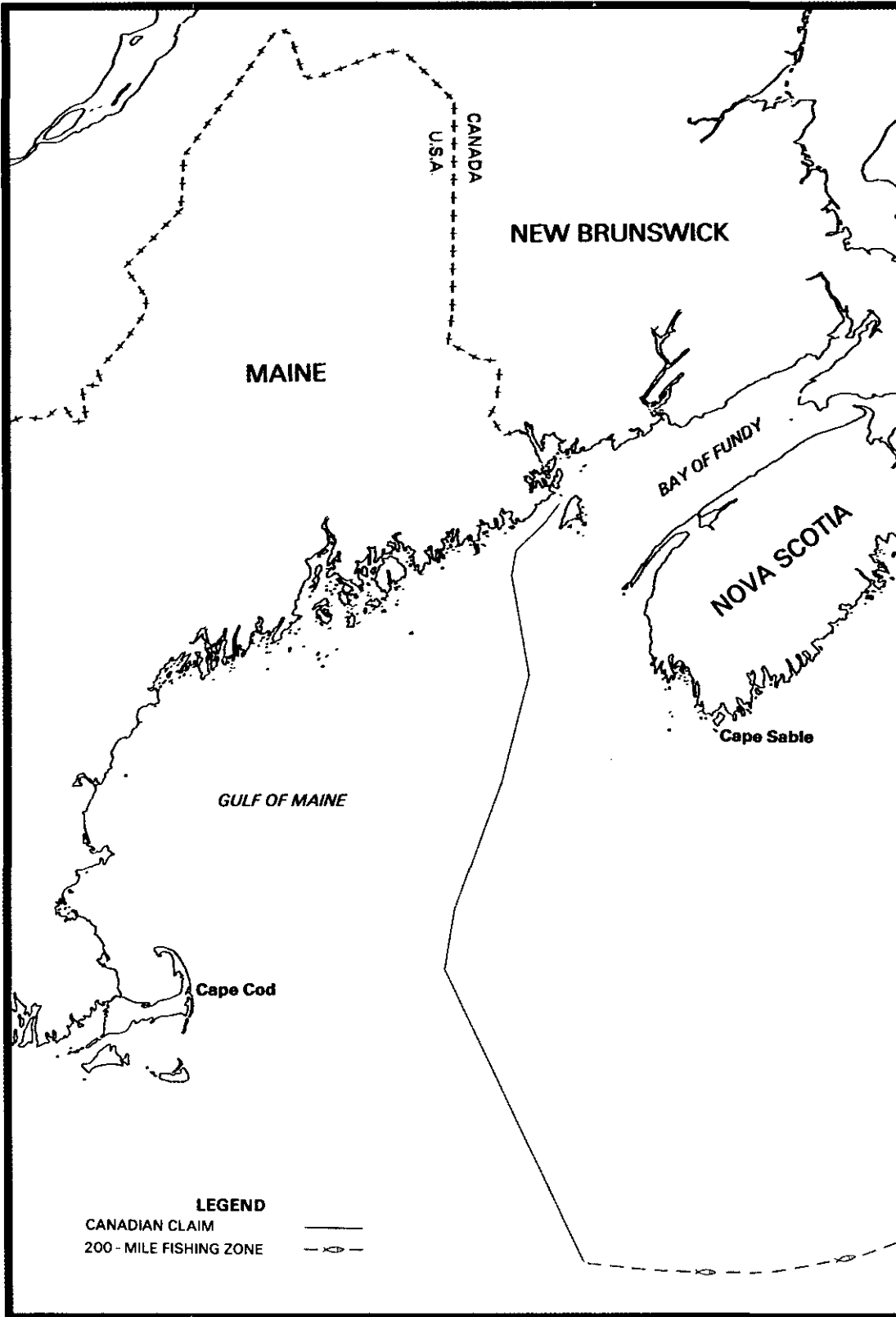


Figure 6: New Brunswick - Maine land boundary

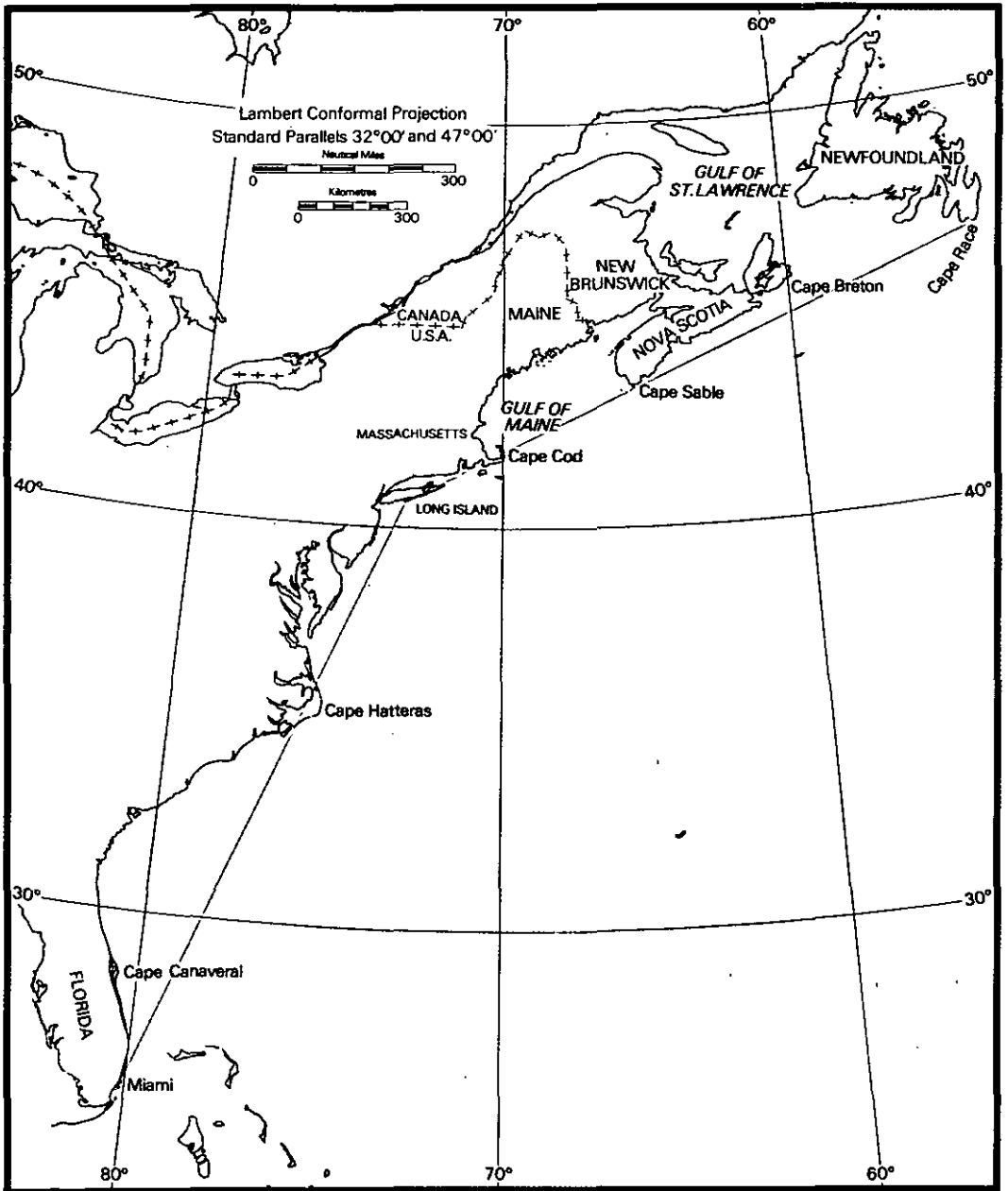
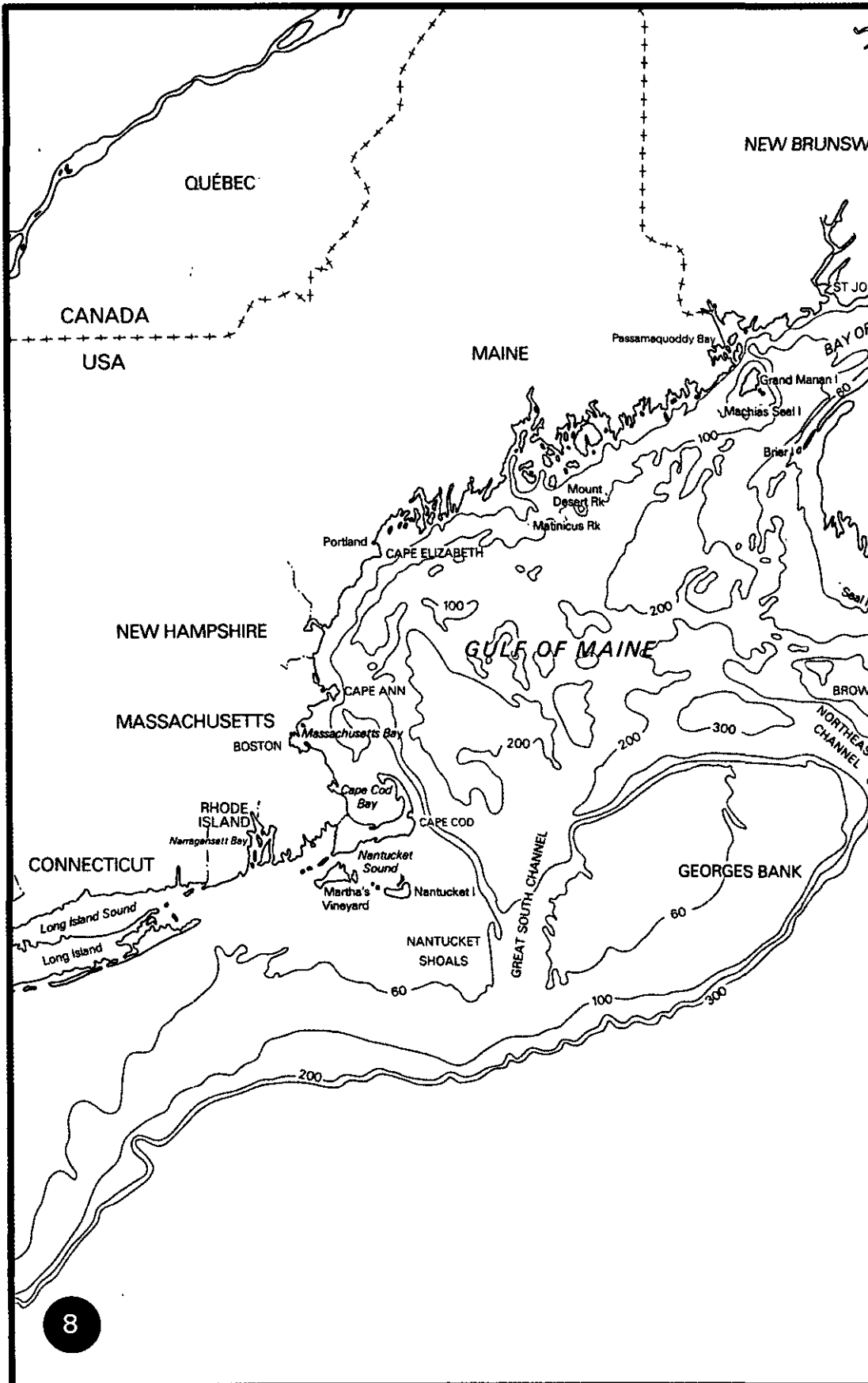
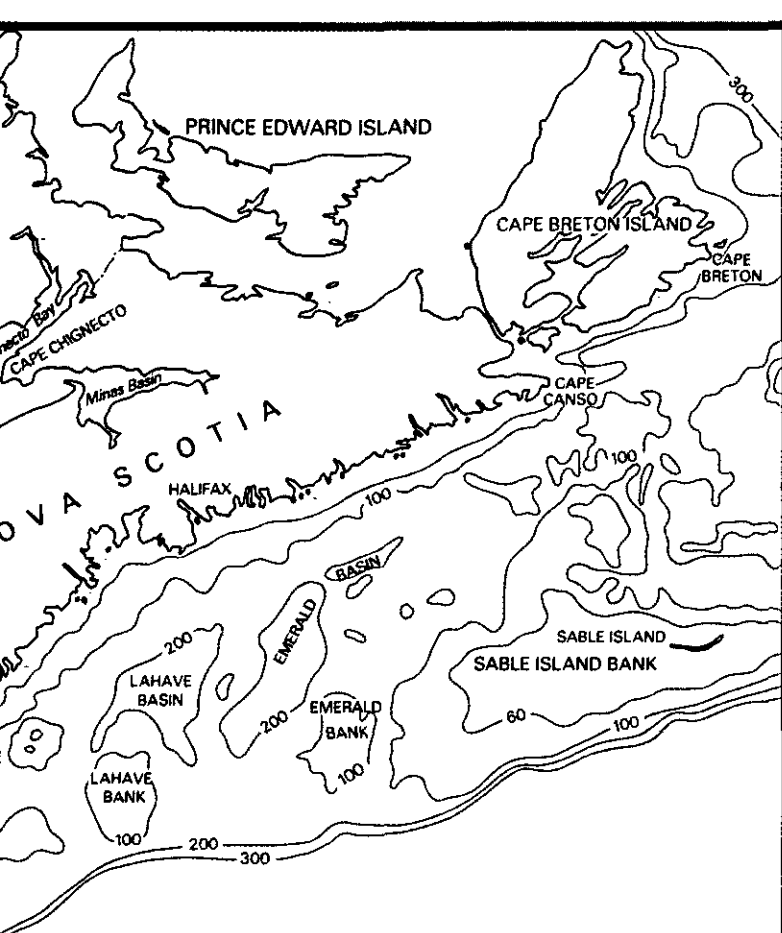


Figure 7: Directional trends of the Atlantic coast of North America







Depths in Metres

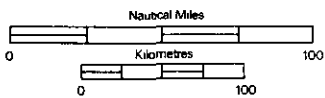
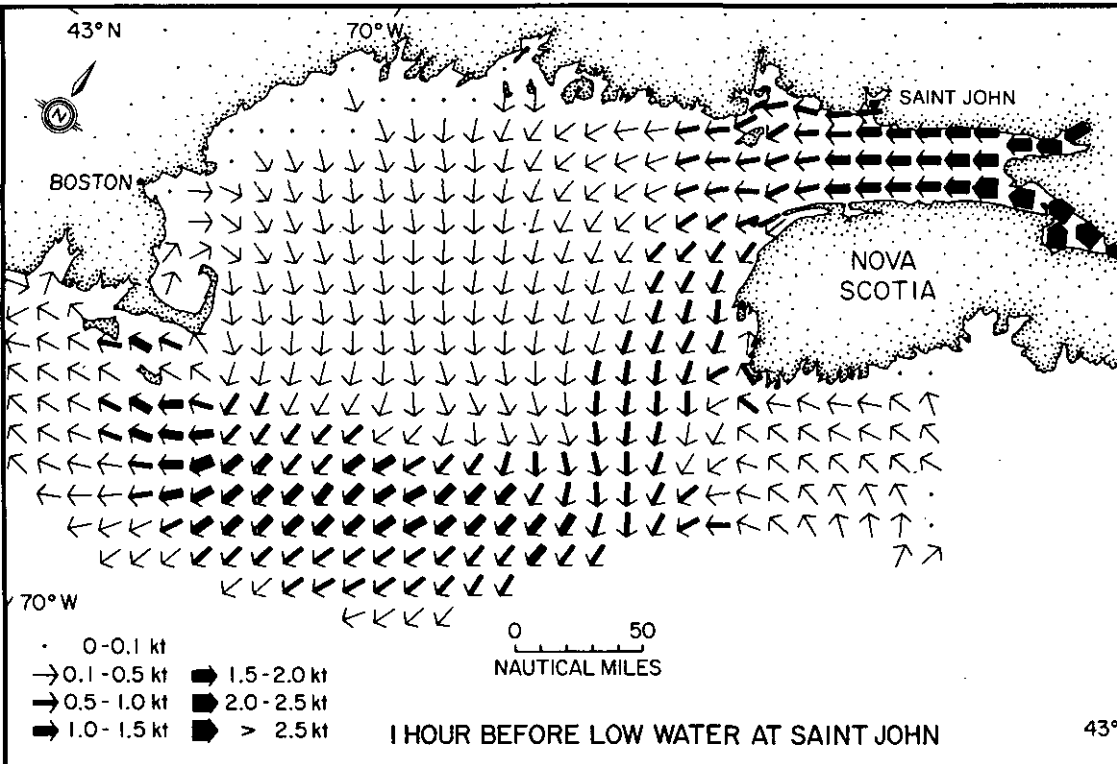
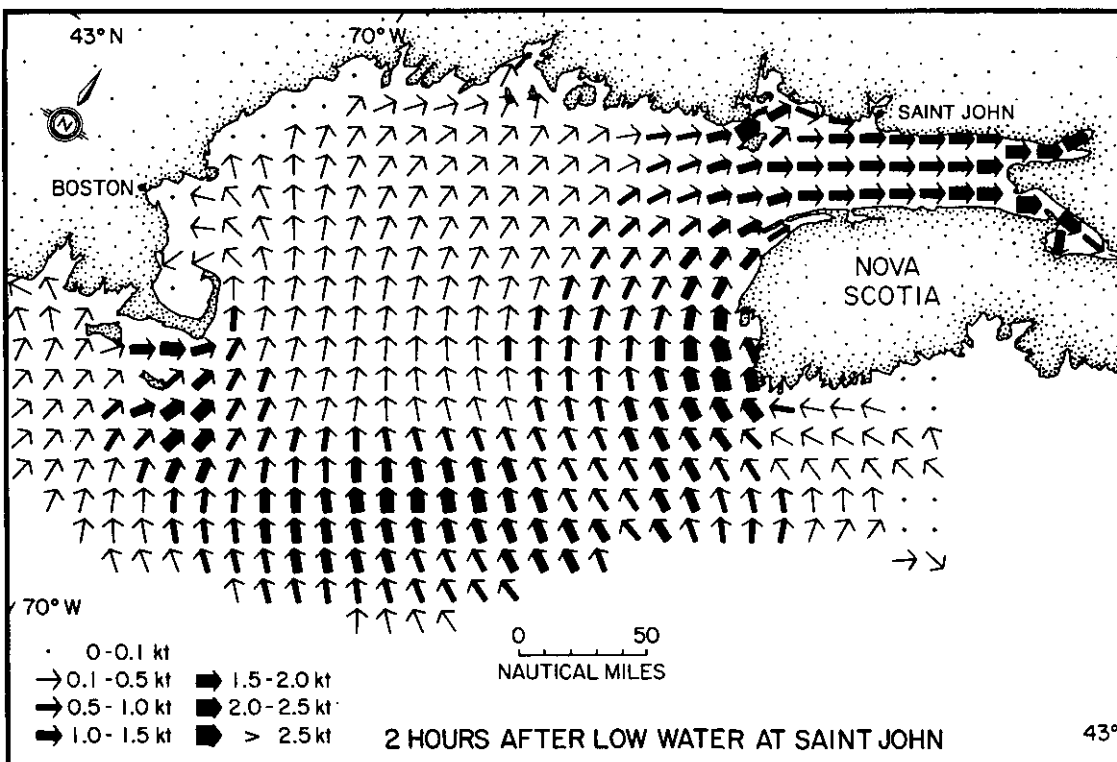


Figure 8



9 *Figure 18: Tidal systems in the Gulf of Maine area*



10 *Figure 19: Tidal systems in the Gulf of Maine area*

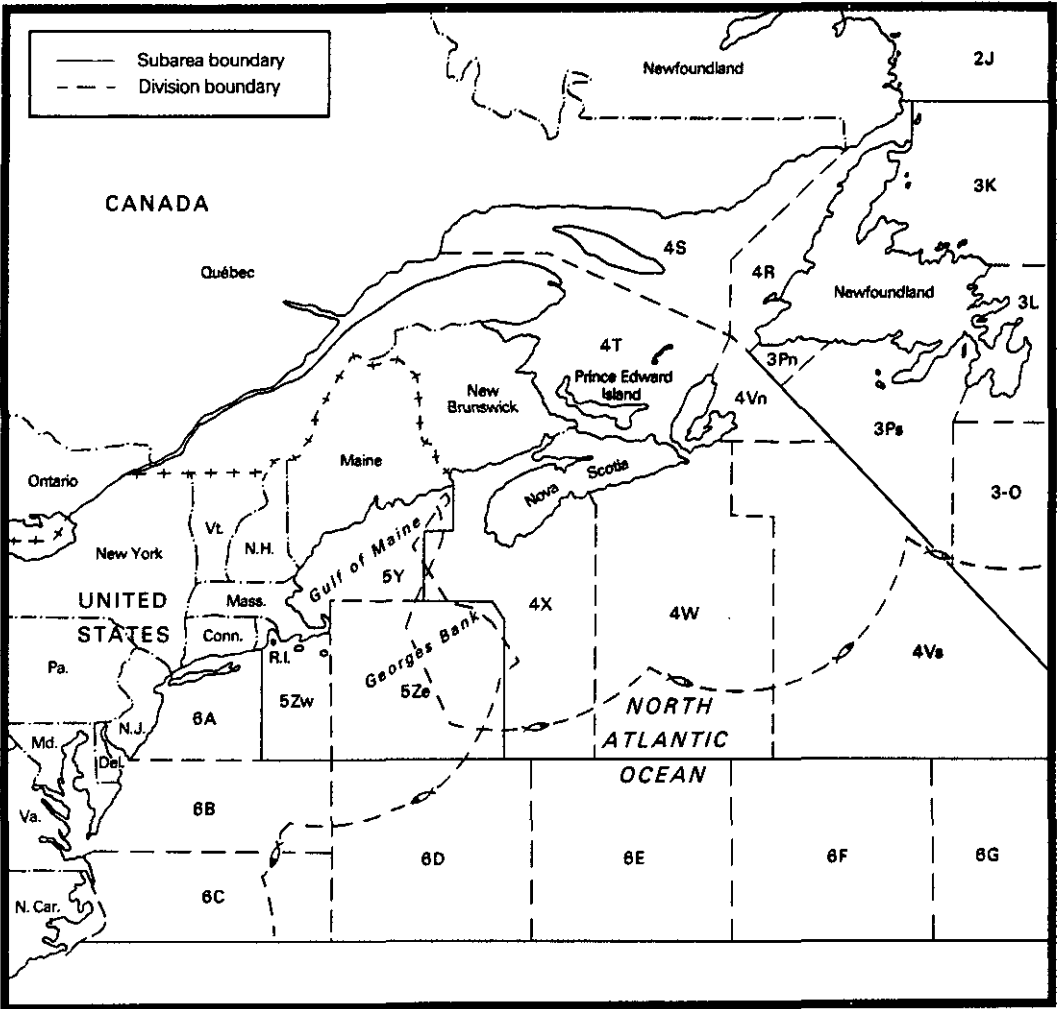


Figure 22: ICNAF subareas and divisions

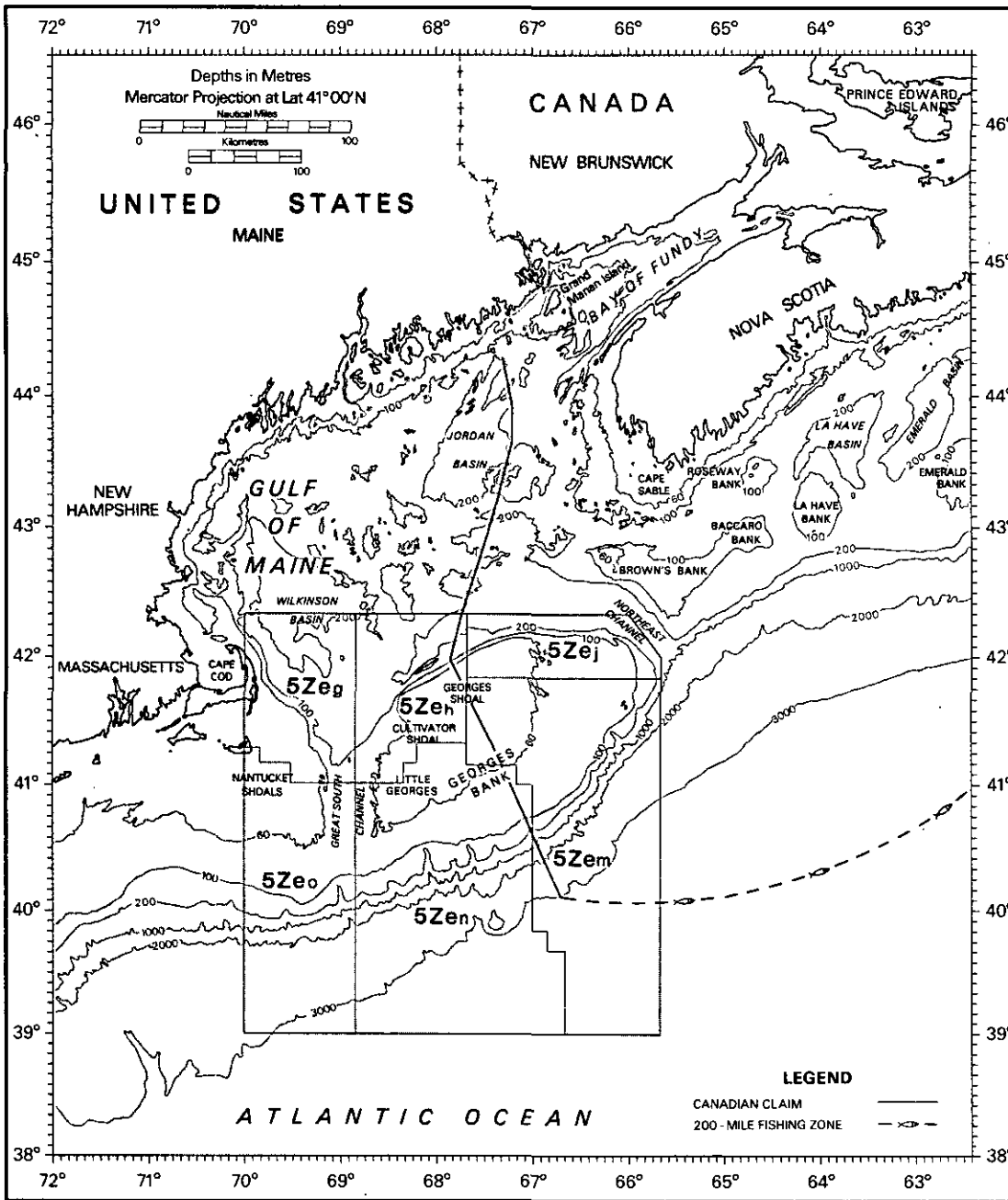


Figure 23: Statistical units of ICNAF subdivision 5Ze



CABOT STRAIT

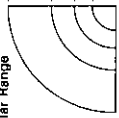
SABLE ISLAND

ATLANTIC OCEAN

**SCALLOP AND LOBSTER**

**LANDED VALUE (\$) 1979**  
 Dollar Range

- \$4,000,001 - \$10,000,000
- - - \$1,000,001 - \$4,000,000
- - - \$100,000 - \$1,000,000
- - - \$47,499,763 (District 2E)



**SCALLOP**  
 Offshore  
 Onshore  
 100%

**LOBSTER**  
 Offshore  
 Onshore  
 100%

**LICENSED GEARS - Vessel Size**

— 100' 100 NM  
 — 60' 100 50 NM  
 — 45' 100 15 NM  
 — 45' (12.5 NM)

**OFFSHORE PORTS**  
 ● Lobster  
 ● Scallops  
 ● Lobster & Scallops

Note: no data for regulations

**LOBSTER DISTRICTS**

3	6b
4	7a
5	7b1
6a	8
6b	

SOURCE: FISHERIES AND OCEANS CANADA 1972, 1978  
 AND SCOTIA DEPARTMENT OF FISHERIES 1980

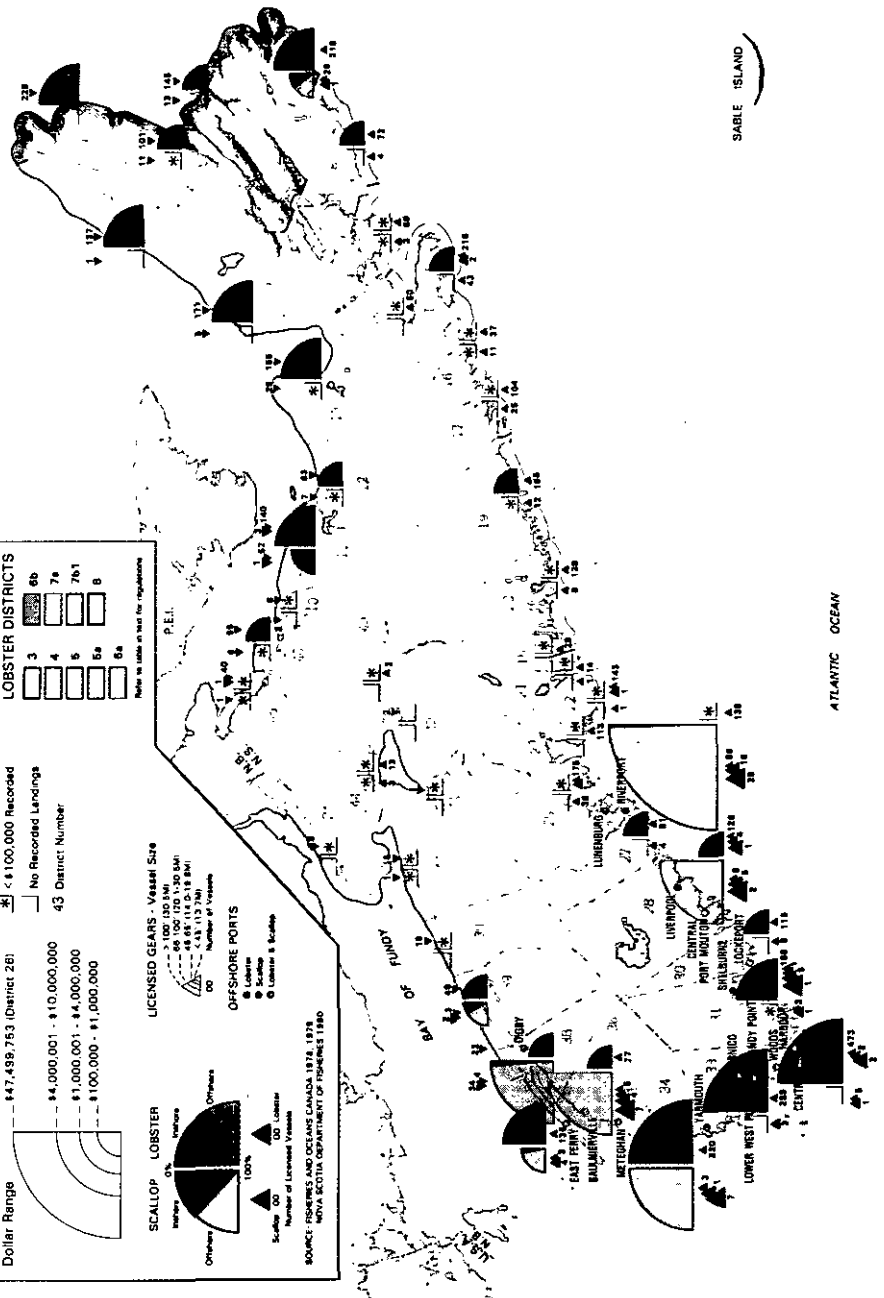


Figure 27

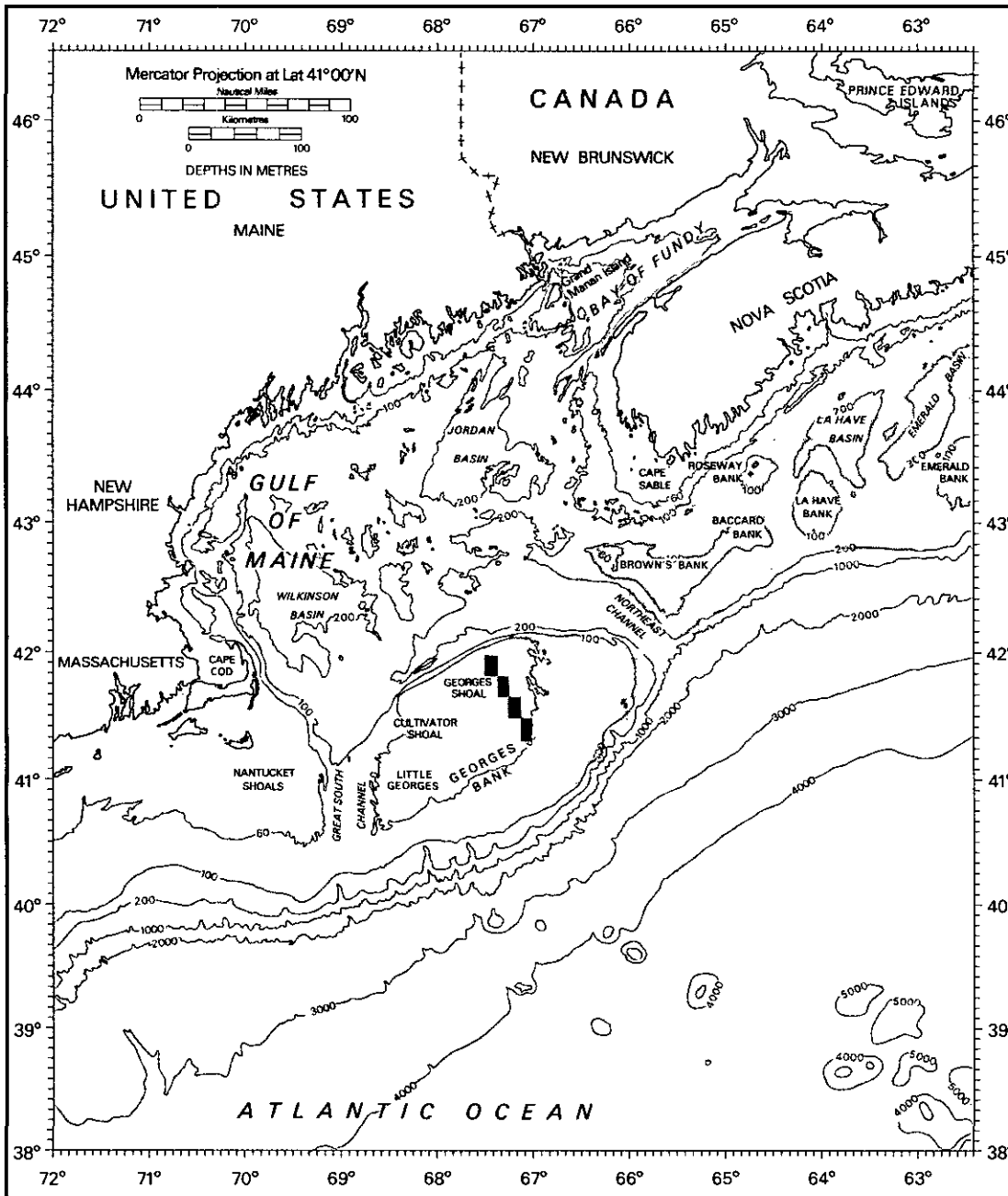


Figure 31: Canadian offshore oil and gas exploratory permits at June 1965

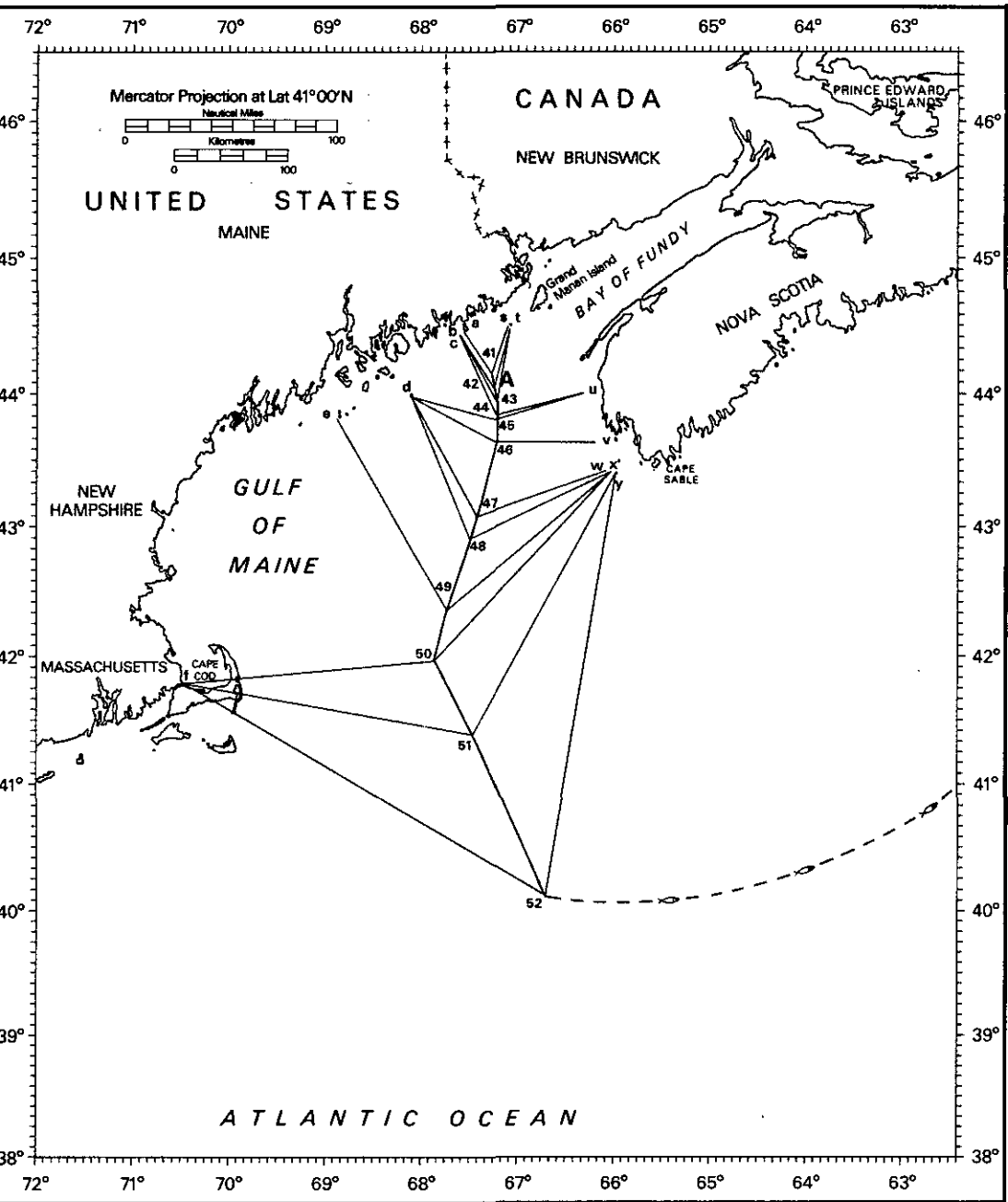


Figure 32: Construction of the Canadian line

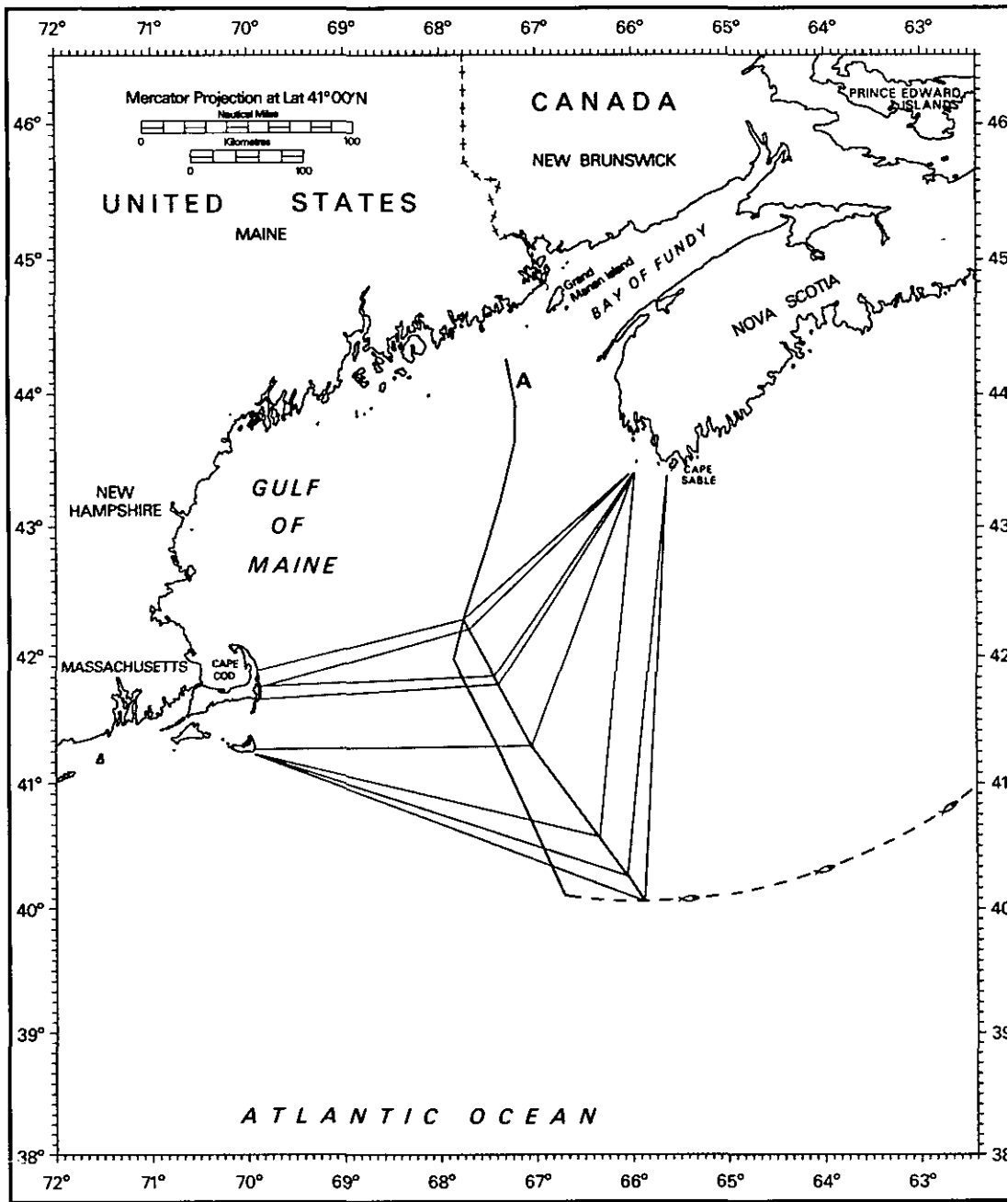


Figure 33: Effect of Cape Cod on equidistance



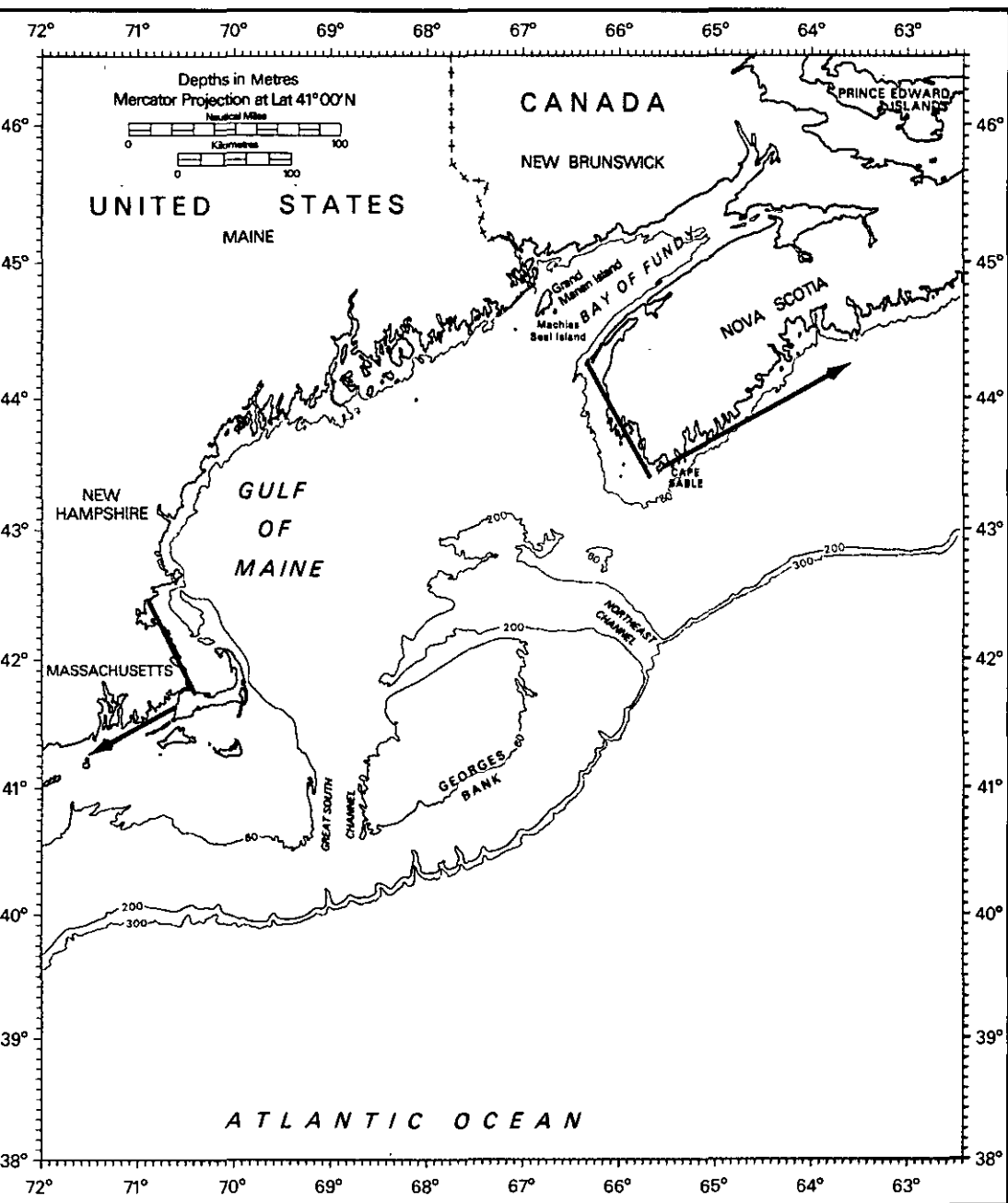
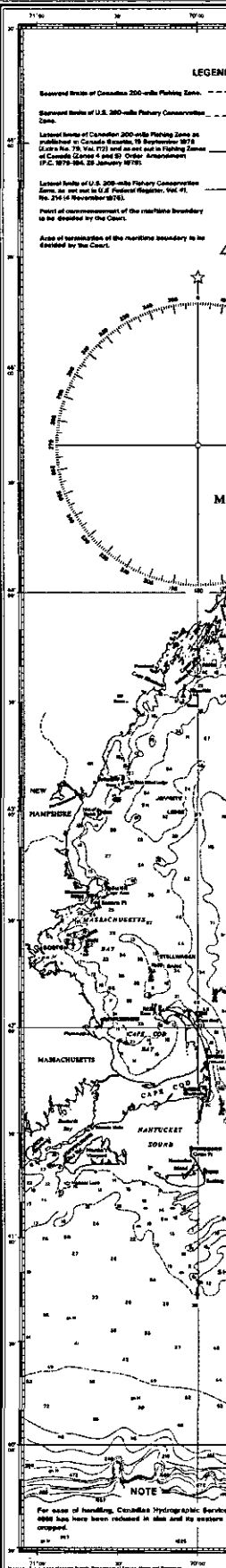


Figure 34: Coastal "wings" of the Gulf of Maine area

4003 C





CANADA

# ATLANTIC COAST/CÔTE DE L'ATLANTIQUE CAPE BRETON TO/À CAPE COD

Scale 1:1,578,000 (1/400,000) Echelle

Projection: Mercator

DEPTHS IN FATHOMS

PROFONDEURS EN BRASSES

DEPTH SOUNDINGS are based on Lowest Tidal State.

LES PROFONDEURS sont indiquées au niveau des basses mers ordinaires.

HEIGHTS are in feet unless Higher High Water, Large Tides.

LES HAUTEURS sont en pieds, sauf indication de la Haute Mer des Grandes Marées.

AUPTITES compiled from Canadian hydrographic Survey and other sources.

AUPTITES compilés de sources hydrographiques canadiennes et d'autres sources.

For Sounding and Abbreviations, see Chart No. 1.

For the meaning of the symbols, see Chart No. 1.

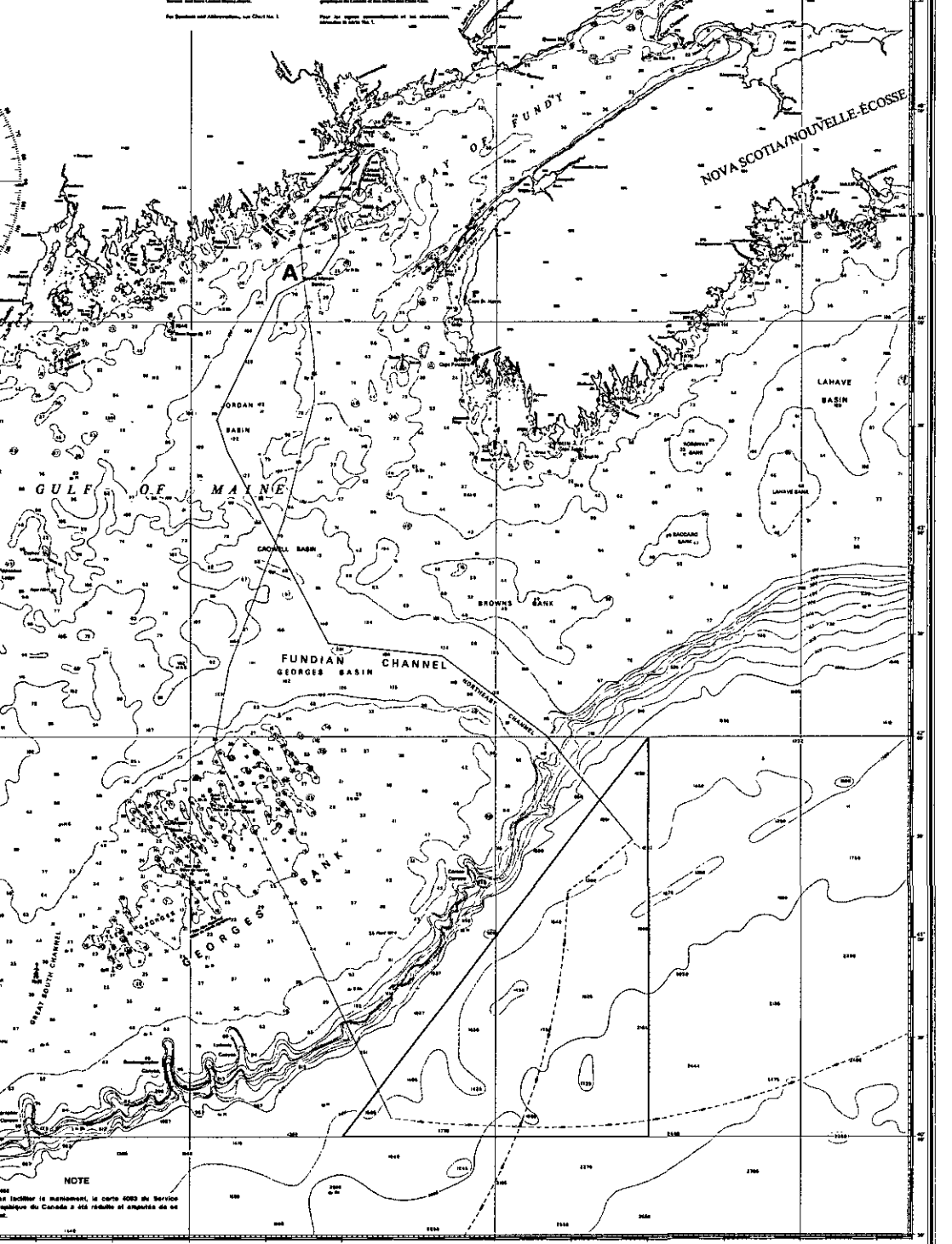
Échelle de la carte de 1:578 000 (1/400 000)

La carte est basée sur le système de coordonnées des États-Unis et des États-Unis d'Amérique.

Les hauteurs sont en pieds, sauf indication de la Haute Mer des Grandes Marées.

Les hauteurs sont en mètres, sauf indication de la Haute Mer des Grandes Marées.

Les hauteurs sont en mètres, sauf indication de la Haute Mer des Grandes Marées.



**NOTE**

For Sounding and Abbreviations, see Chart No. 1.

For the meaning of the symbols, see Chart No. 1.

LEGEND/LÉGENDE

Seaward limits of Canadian 200-mile Fishing Zone

Limites vers le large de la zone de pêche de 200 milles du Canada

Lateral limits of Canadian 200-mile Fishing Zone as published in Customs Gazette, 30 September 1978 (Form No. 78, Vol. 782) and as set out in Fishing Zones of Canada (Charts 4 and 4) Order Amendment 14.2, 1977-84, 28 January 1976.

Limites latérales de la zone de pêche de 200 milles du Canada publiées dans le Gazette du Canada du 30 septembre 1978 (Editions supplémentaires 78, Vol. 782) et dans le Document sur les zones de pêche du Canada (Zones 4 et 4), Modification (C-2) 1977-84 du 28 janvier 1976.

Point of measurement of the reference boundary to be decided by the Court.

A



CANADA

ATLANTIC COAST/CÔTE DE L'ATLANTIQUE  
CAPE BRETON TO/À CAPE COD

Scale 1:1,575,000 (44°00'N) Echelle

Projection: Mercator

DEPTHS IN FATHOMS

PROFONDEURS EN BRASSES

DEPTHS are measured by Lowest Astronomical Tides

LES PROFONDEURS sont indiquées au niveau des plus basses mers astronomiques

HEIGHTS are to Spot Height, Higher High Water, Large Tide

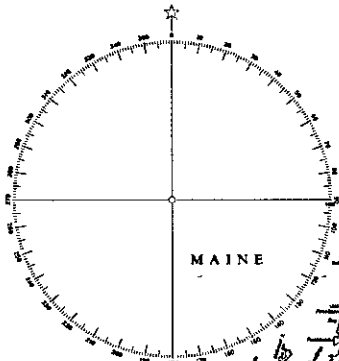
LES HAUTEURS sont au point le plus haut de la Pleine Mer, plus haute mer astronomique

AUTHORITY: Canadian Coast Charting, Hydrographic Service, under the authority of the Minister

AUTHORITY: Service d'hydrographie, Service hydrographique du Canada, en vertu de l'autorité du Ministre

For Symbols and Abbreviations, see Chart No. 1

Pour les symboles, abréviations et les conventions, consulter le plan No. 1



MAINE

NEW BRUNSWICK  
NOUVEAU-BRUNSWICK

BAY OF FUNDY

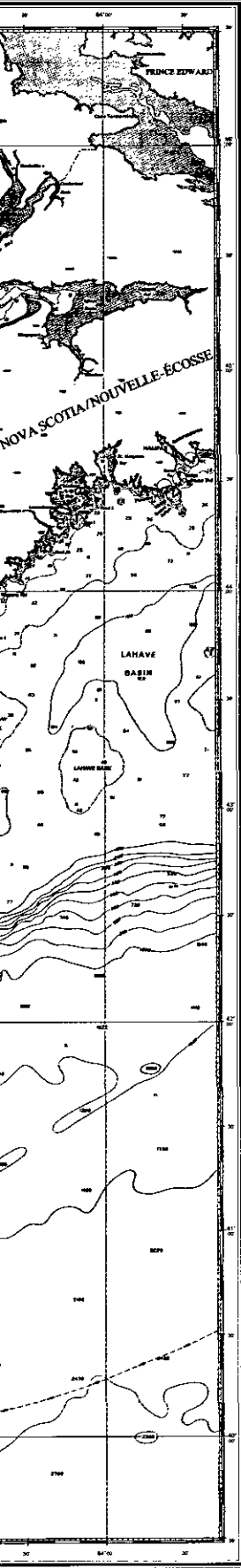
GULF OF MAINE

FUNDIA GEORGES BASIN CHANNEL

SHORE BASIN

NOTE  
For ease of handling, Canadian Hydrographic Service Chart 4000 has here been reduced in size and its content ported crossed.

NOTE  
Afin d'en faciliter le manutention, le carte 4000 du Service hydrographique du Canada a été réduite et imprimée de la partie est.



4003 E

PUBLISHED BY THE CANADIAN HYDROGRAPHIC SERVICE  
 1. Manager of Charts and Sounding Tables 1981  
 PUBLIÉ PAR LE SERVICE HYDROGRAPHIQUE DU CANADA  
 2. Directeur des Publications et des Sounding Tables 1981

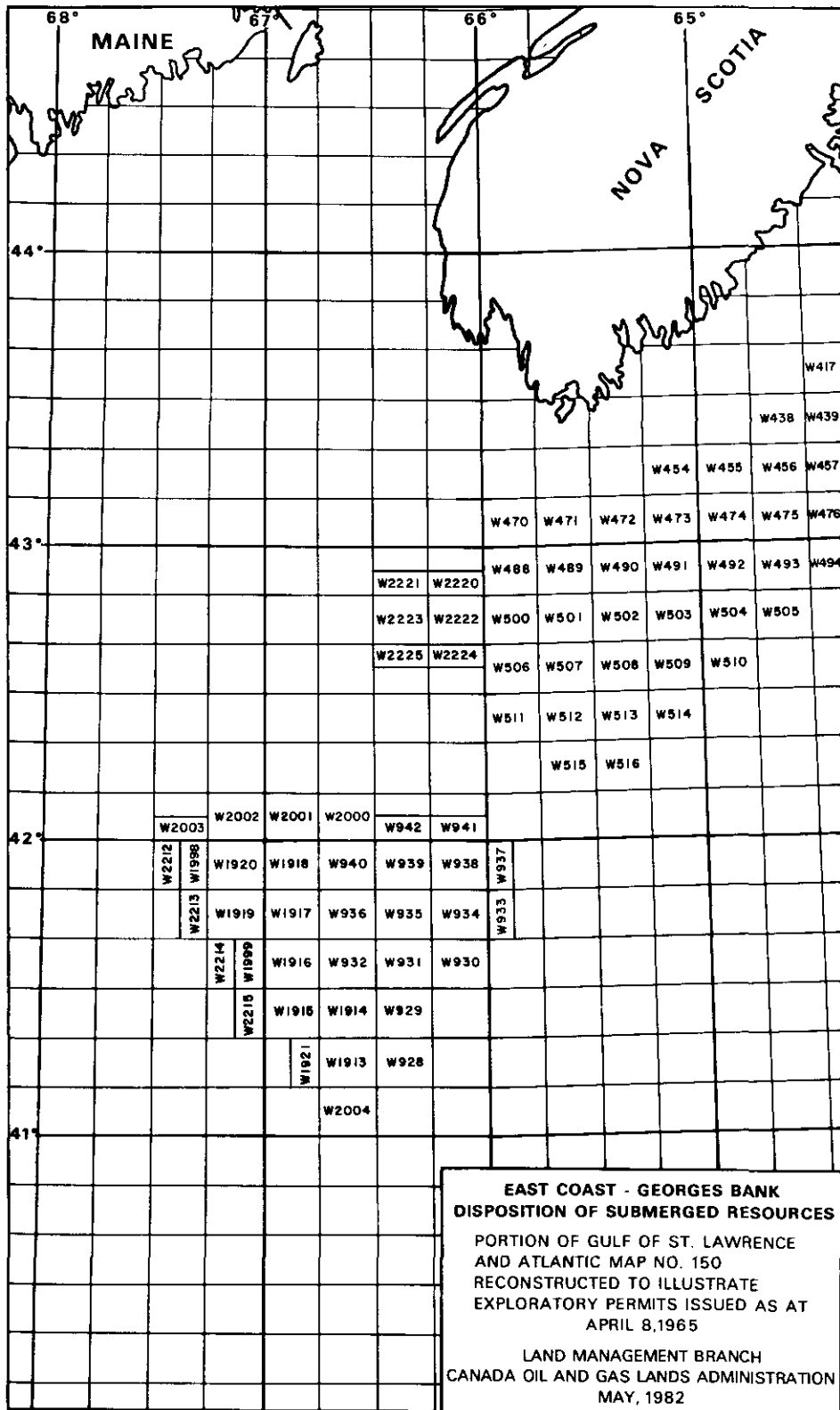


Figure 3

EAST COAST OF NORTH AMERICA, WITH BATHYMETRY

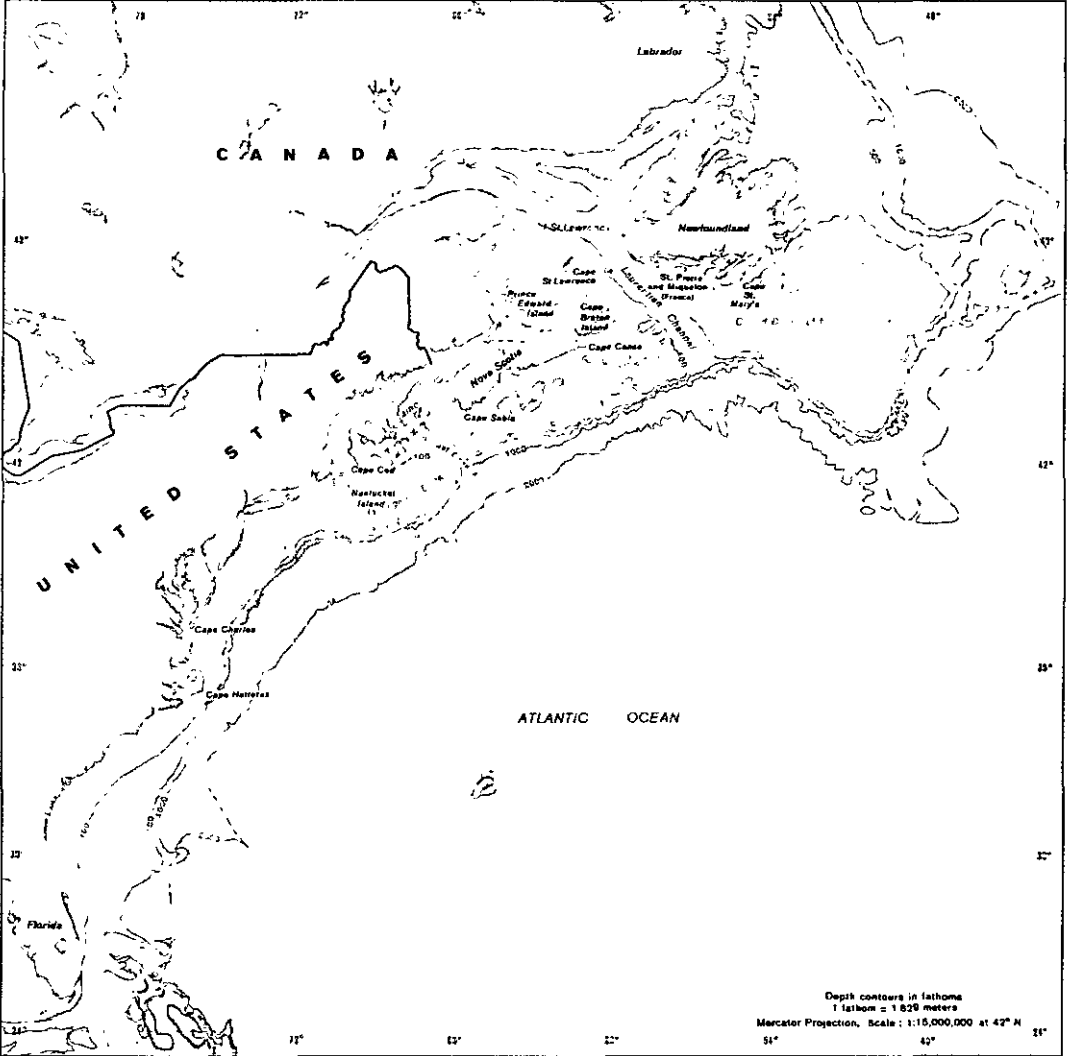






Figure 7

**RANGES OF STOCKS OF SIXTEEN COMMERCIALLY IMPORTANT SPECIES,  
IN A ZONE EXTENDING FROM BLOCK ISLAND (RHODE ISLAND),  
ACROSS GEORGES BANK, THE NORTHEAST CHANNEL, AND  
BROWNS BANK TO LAHAVE BANK**

Fishable Quantities of Individual Stocks Occur as Indicated by Bars

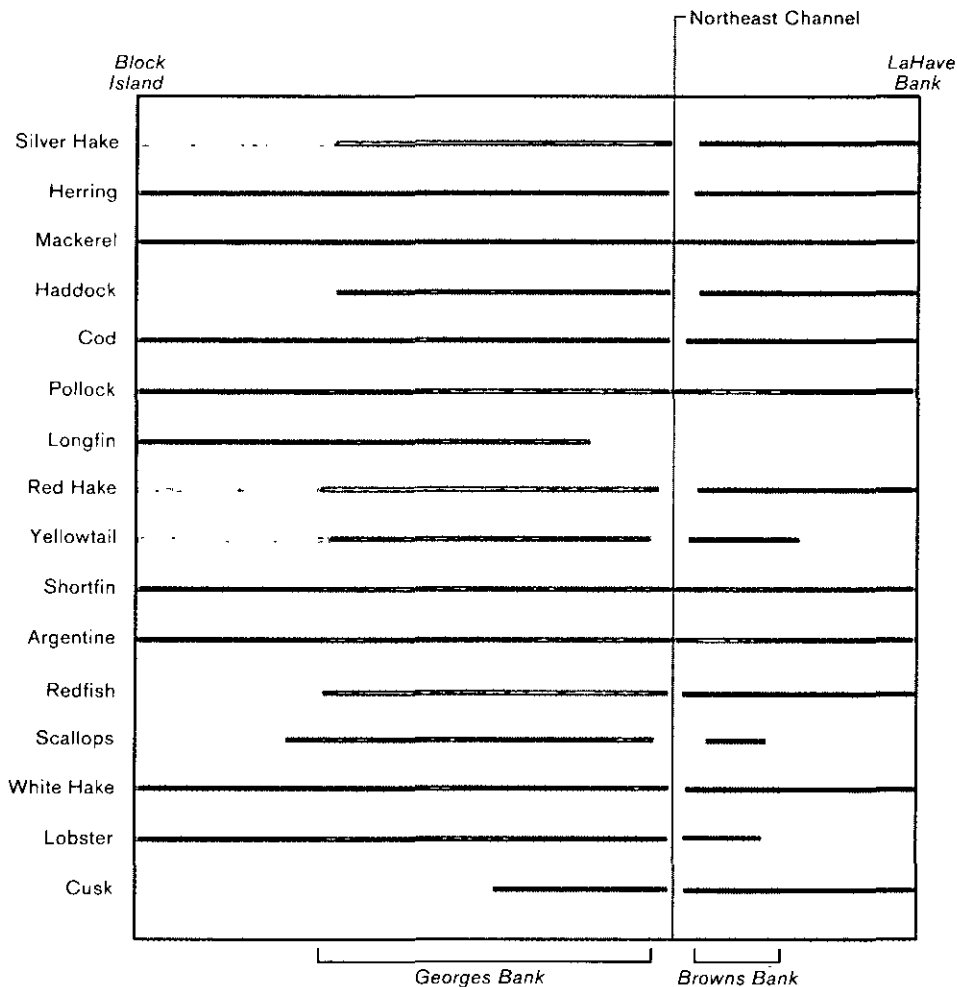
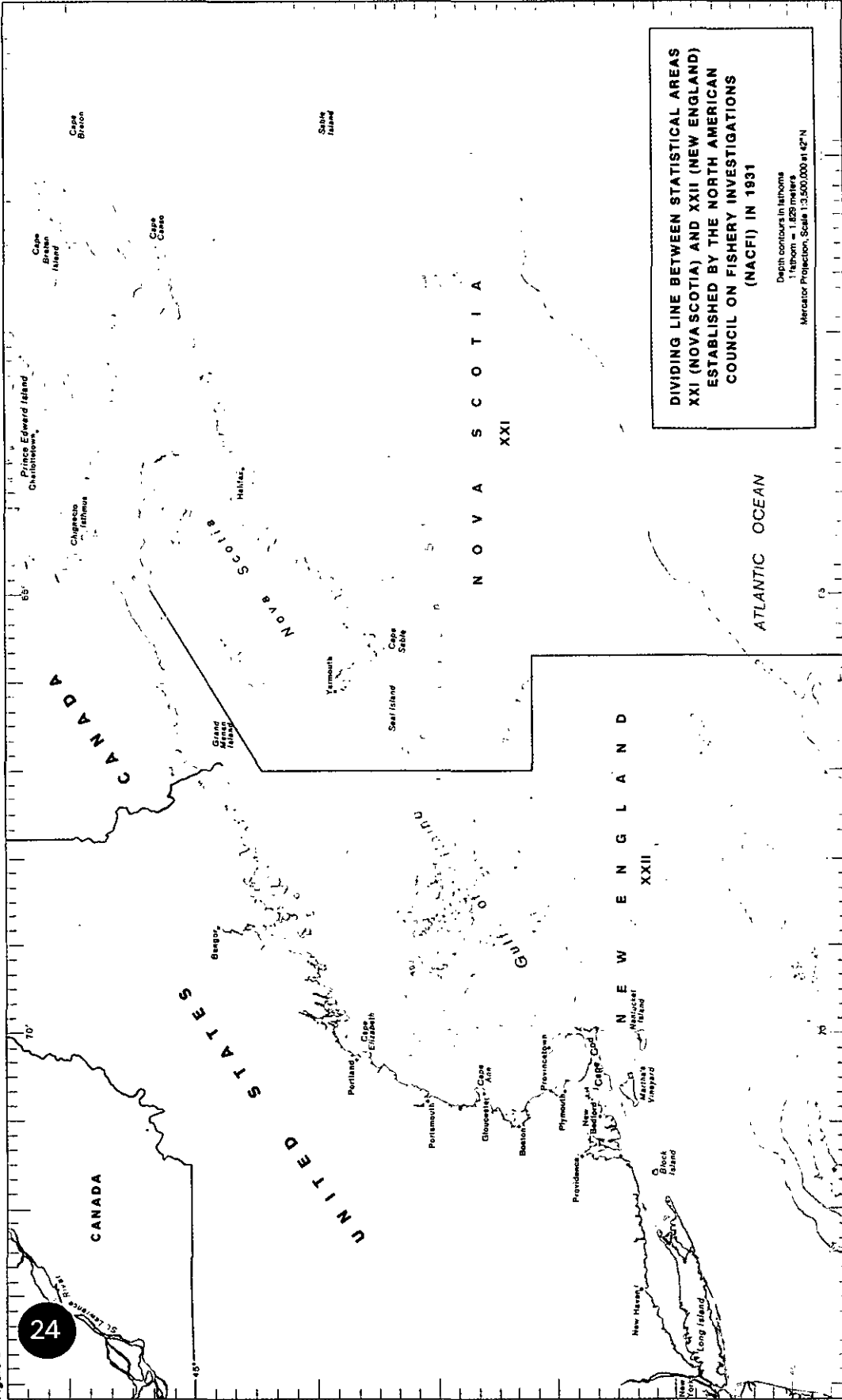
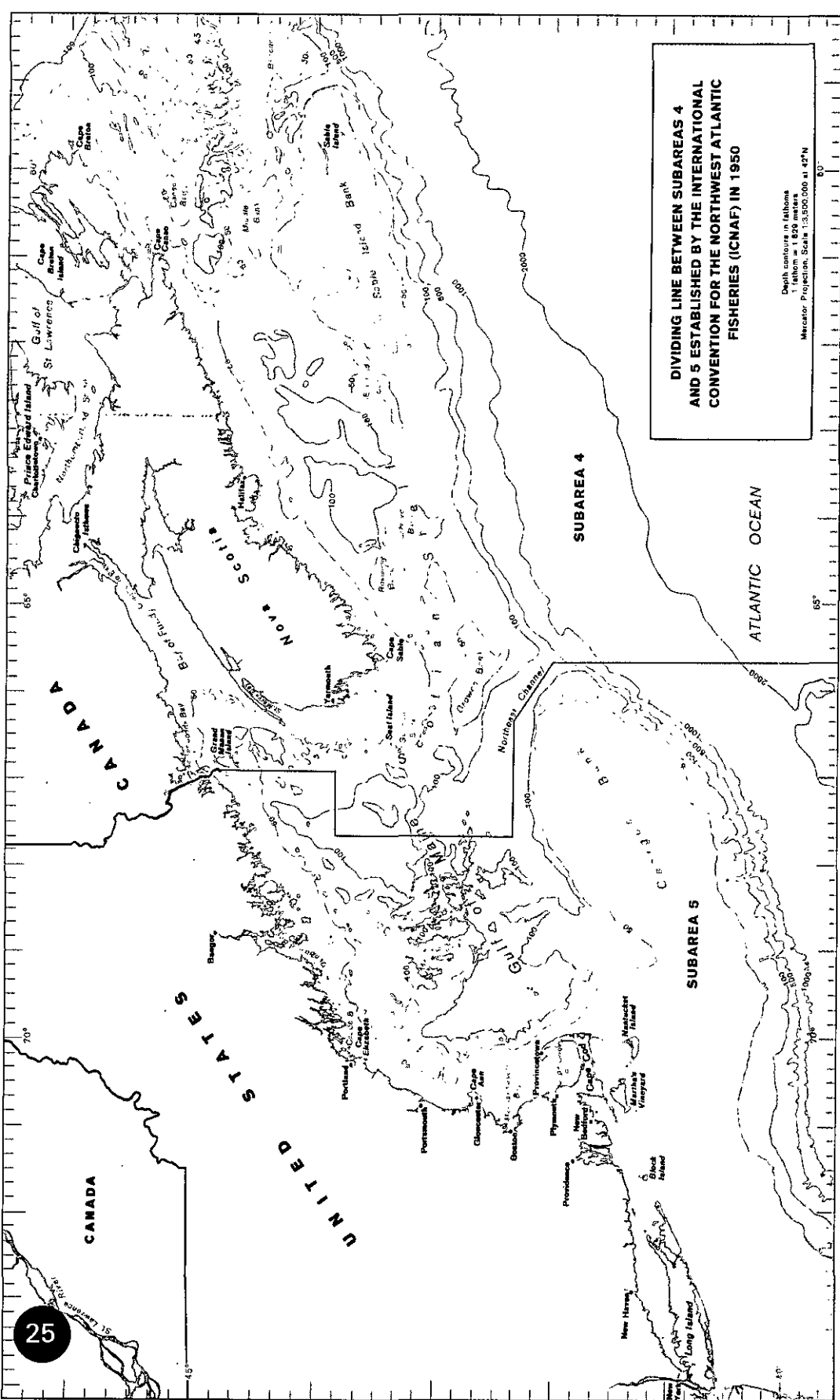


Figure 8



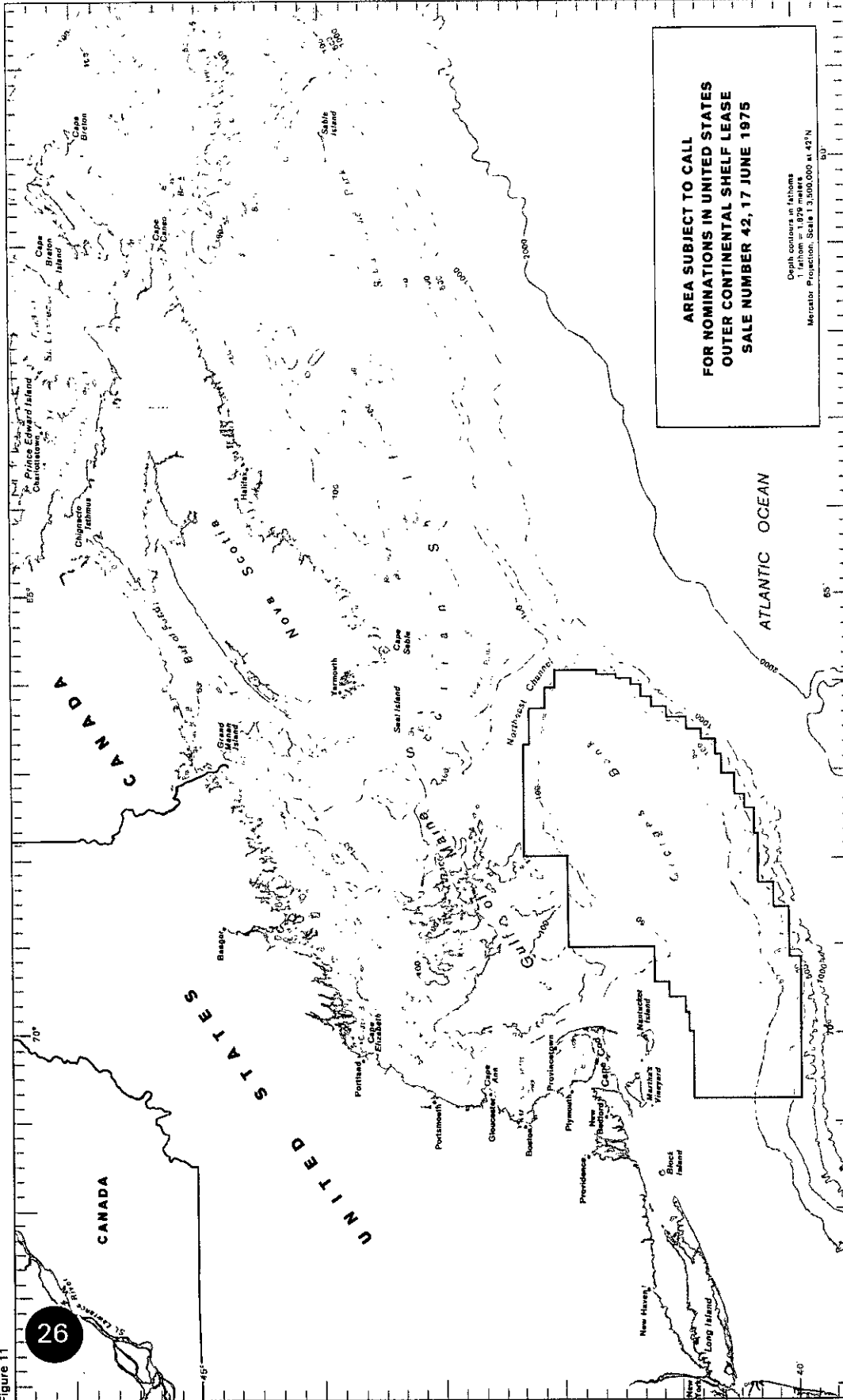


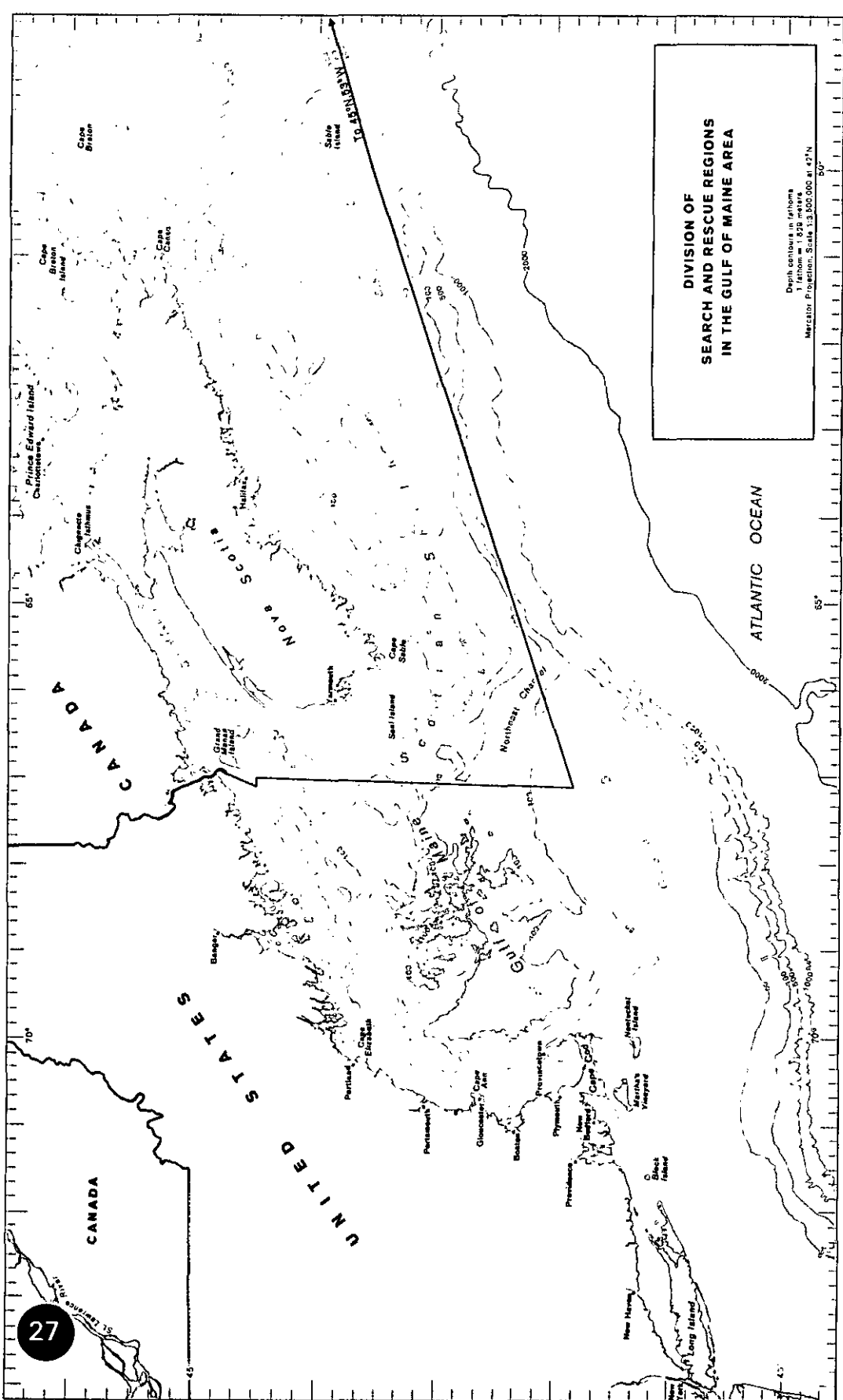
**DIVIDING LINE BETWEEN SUBAREAS 4 AND 5 ESTABLISHED BY THE INTERNATIONAL CONVENTION FOR THE NORTHWEST ATLANTIC FISHERIES (ICNAF) IN 1950**

Depth contours in fathoms  
1 fathom = 1.828 meters

Mercator Projection. Scale 1:3,000,000 at 40°N

Figure 11





**DIVISION OF  
SEARCH AND RESCUE REGIONS  
IN THE GULF OF MAINE AREA**

Depth contours in fathoms  
1 fathom = 1,920 meters  
Mercator Projection, Scale 1:3,000,000 at 47°N

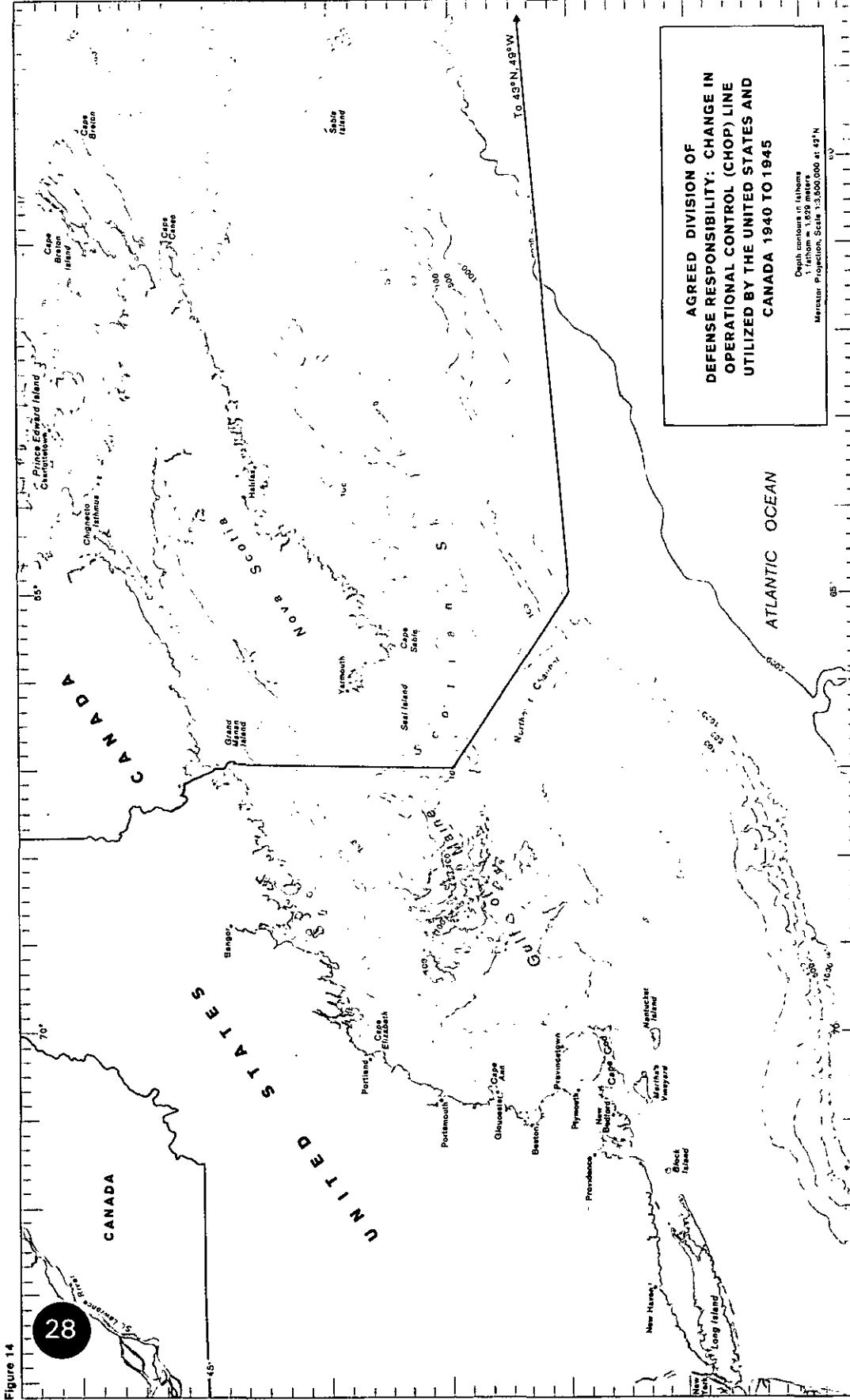
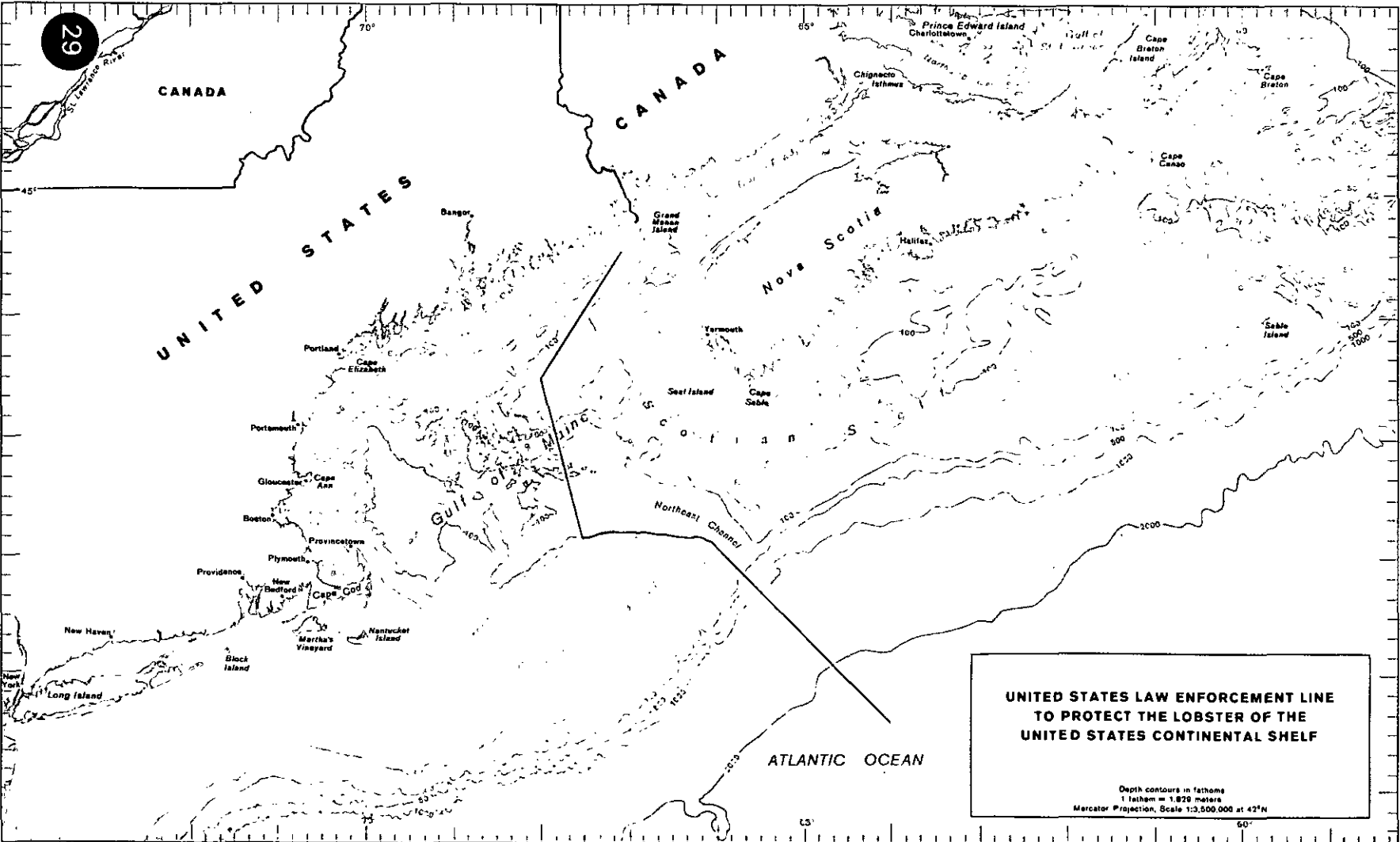


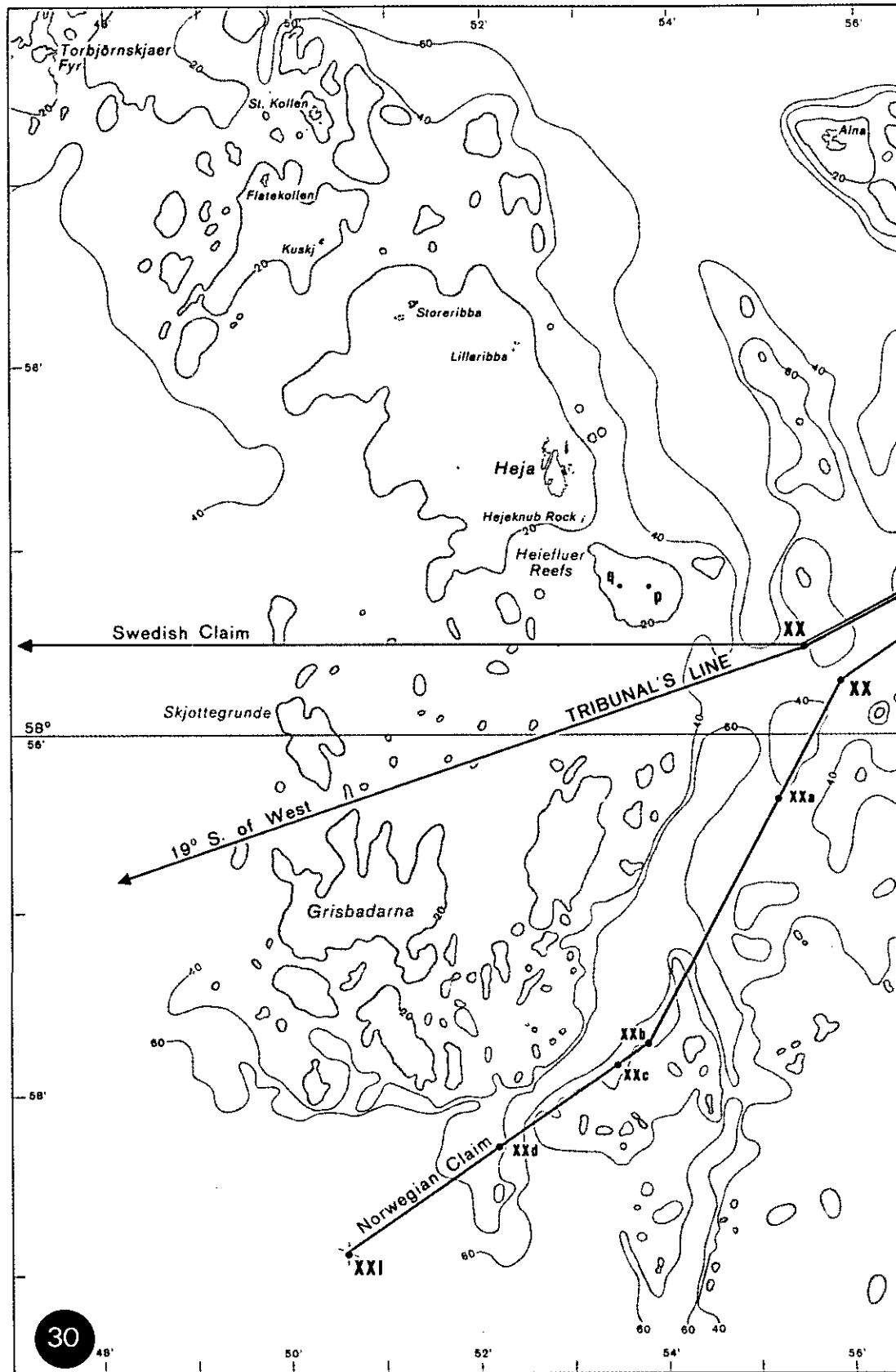
Figure 14



**UNITED STATES LAW ENFORCEMENT LINE  
TO PROTECT THE LOBSTER OF THE  
UNITED STATES CONTINENTAL SHELF**

Depth contours in fathoms  
1 fathom = 1.828 meters  
Mercator Projection, Scale 1:3,500,000 at 42°N  
60°

Figure 20





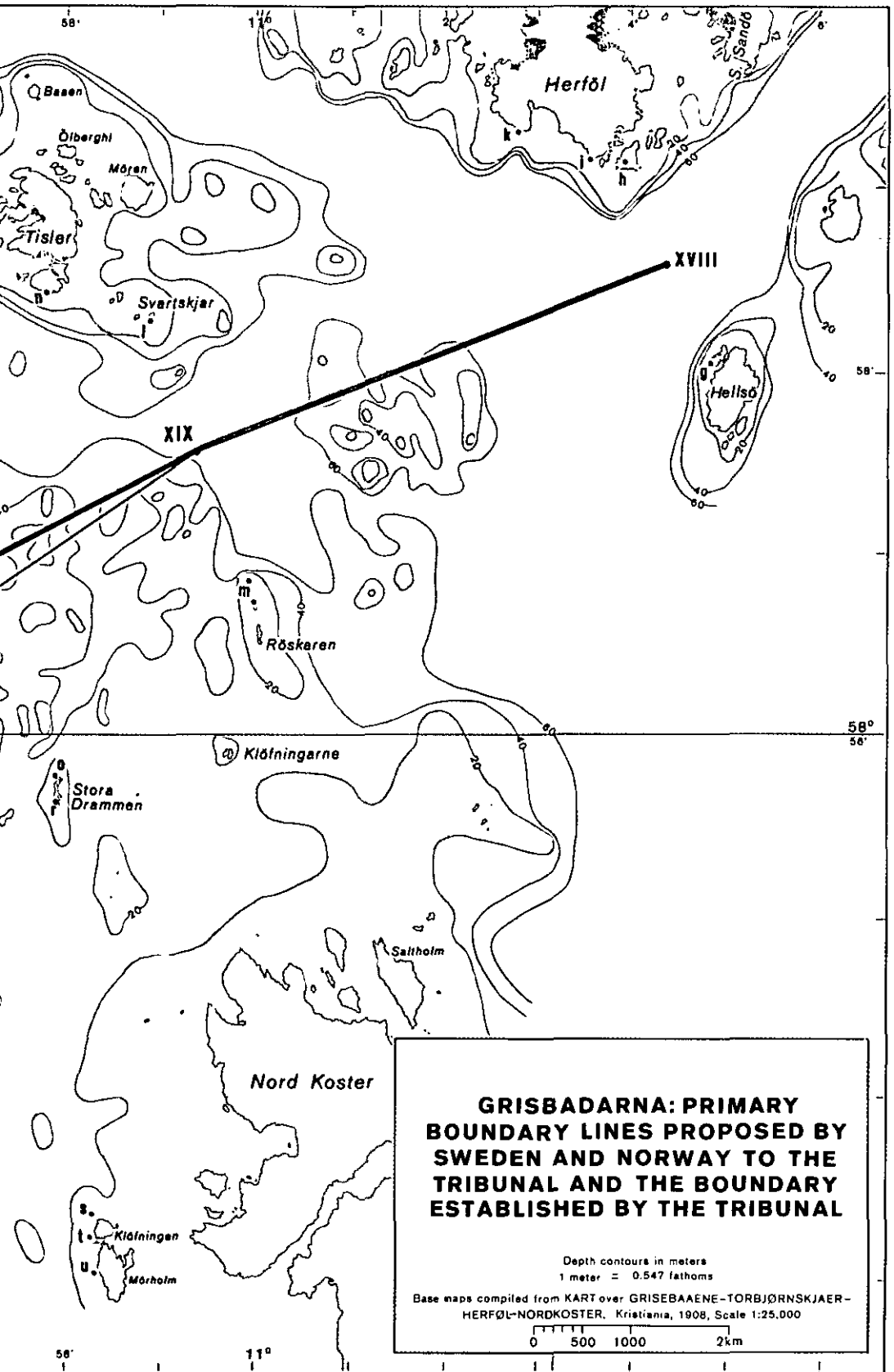
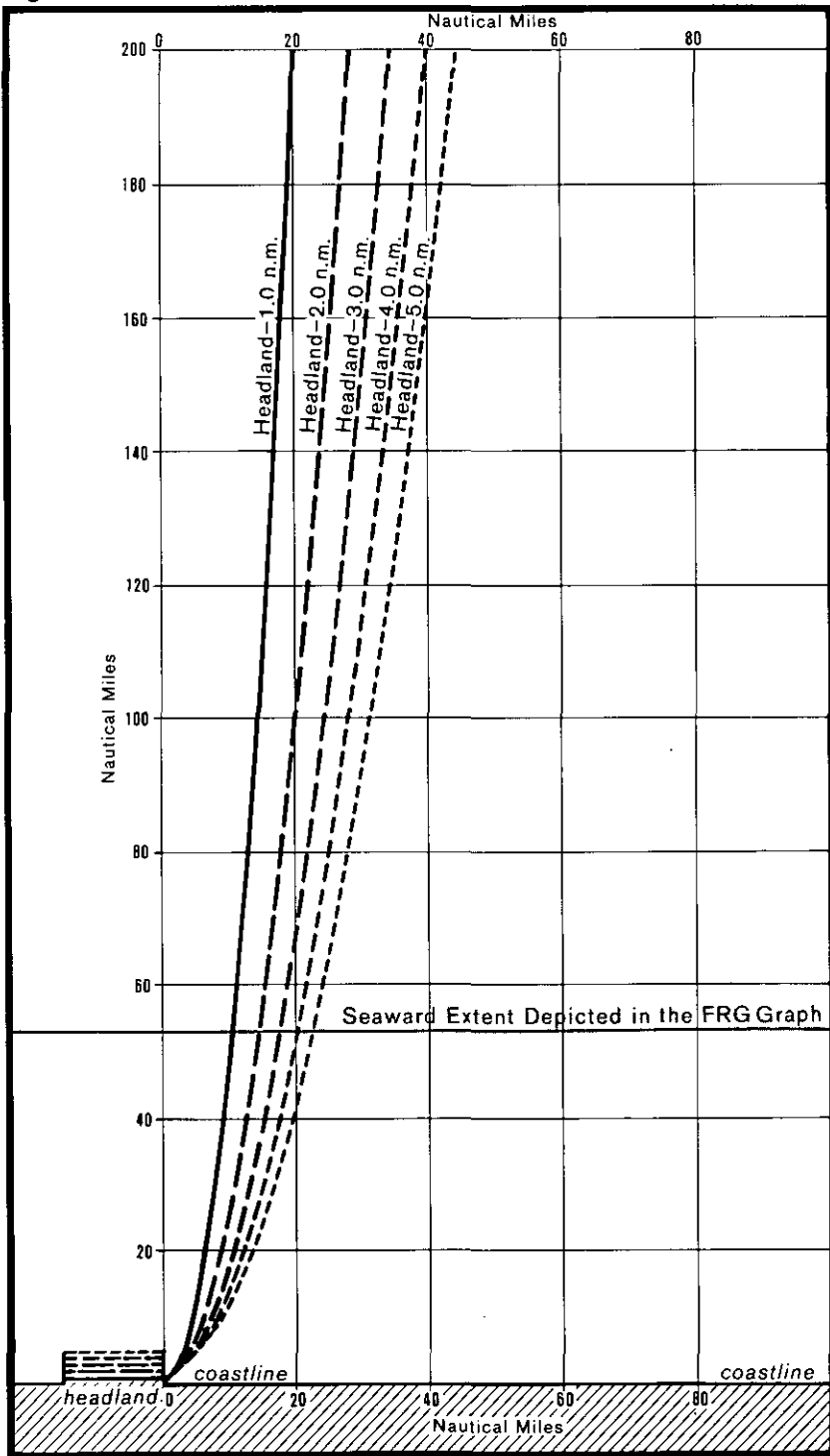
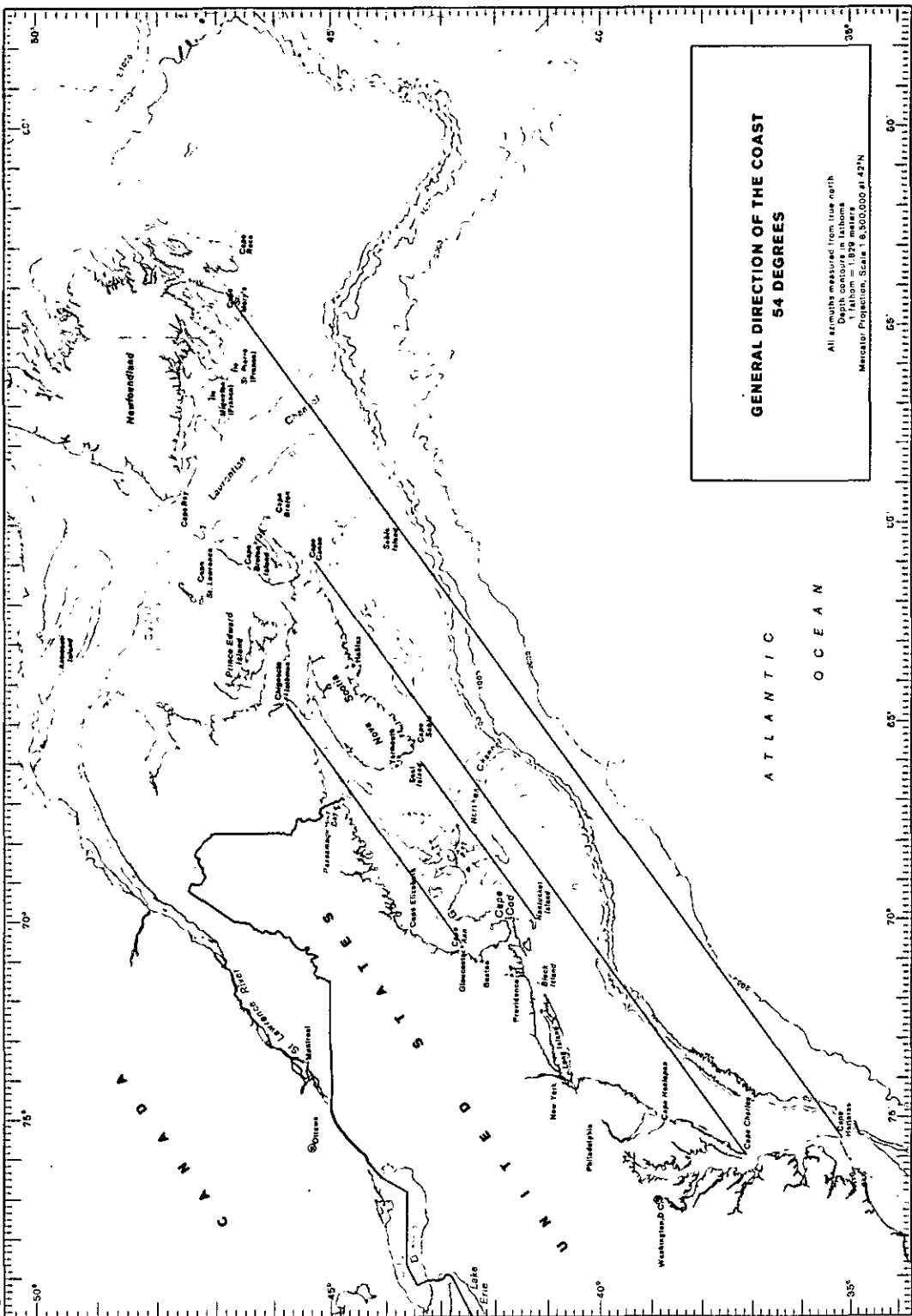


Figure 25



**GRAPH BASED UPON THE METHOD EMPLOYED IN THE ARGUMENT OF PROFESSOR JAENICKE OF THE FEDERAL REPUBLIC OF GERMANY IN THE NORTH SEA CONTINENTAL SHELF CASES (PLEADINGS, VOL. II, P. 29), EXTENDED TO 200 NAUTICAL MILES (370 KM.) SEAWARD OF THE COAST LINE**

Figure 26

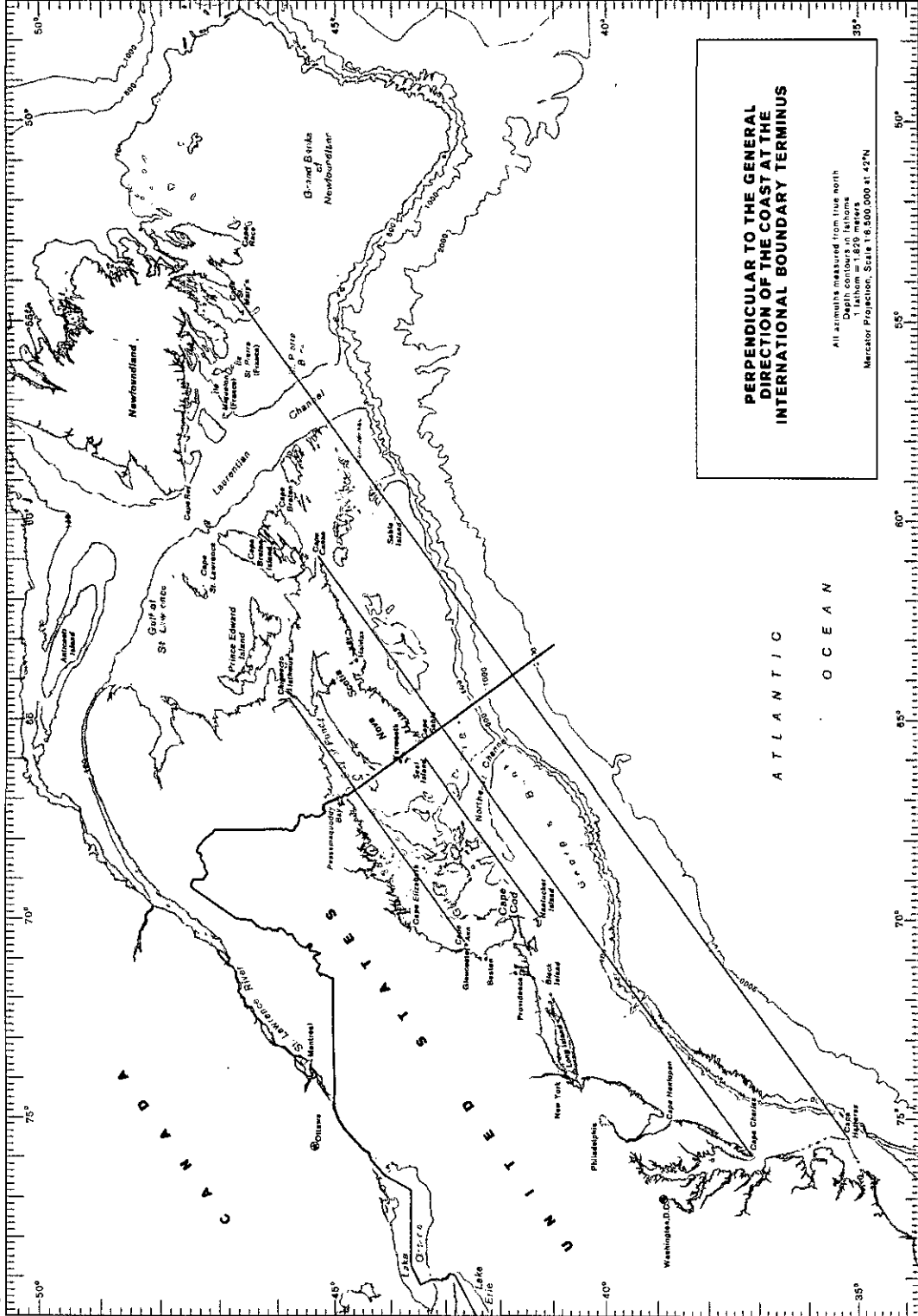


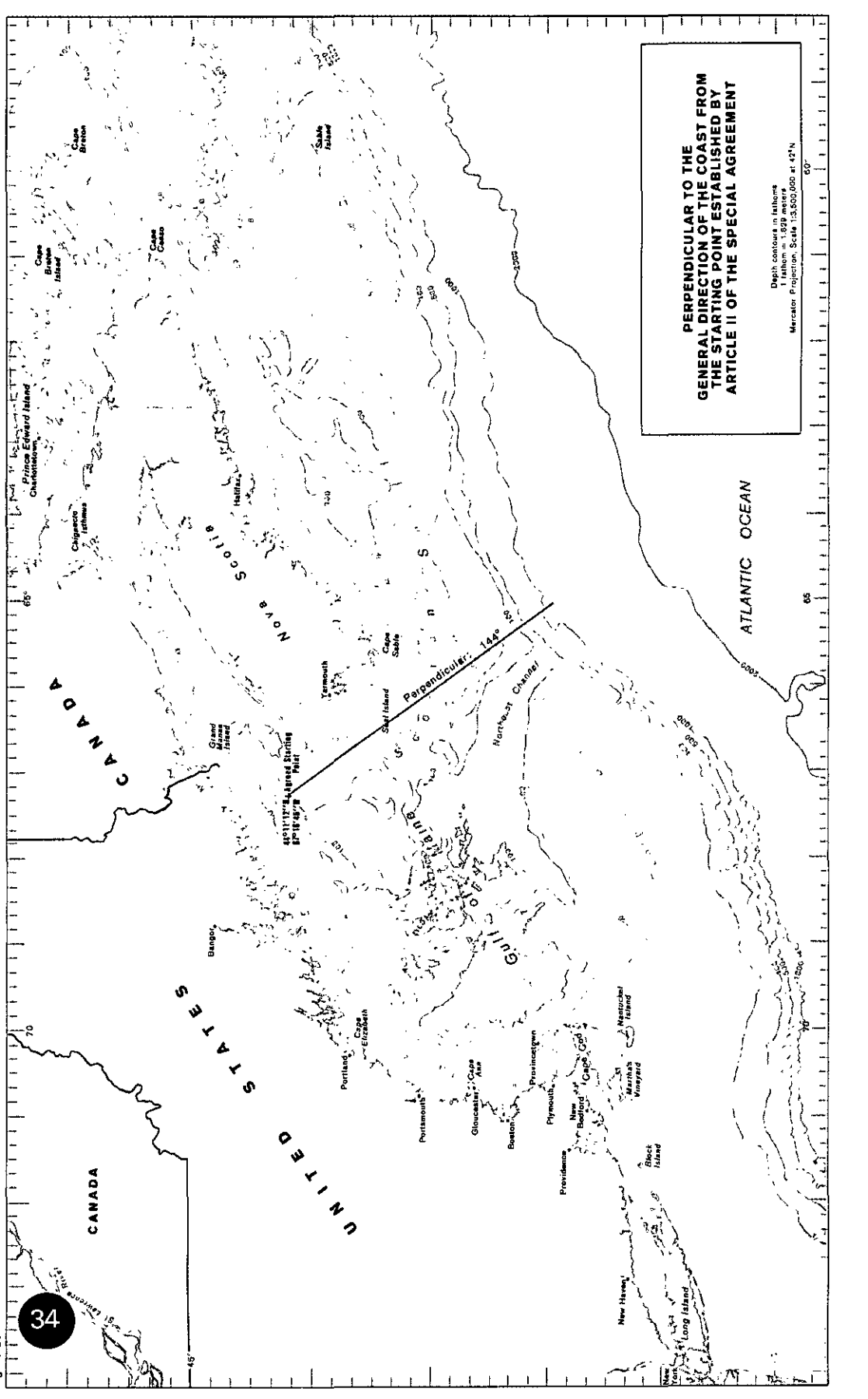
**GENERAL DIRECTION OF THE COAST  
54 DEGREES**

All azimuths measured from true north  
Graphic scale in meters  
1:8,300,000 at 42°N  
Mercator Projection, Scale 1:8,300,000 at 42°N

ATLANTIC OCEAN

Figure 27

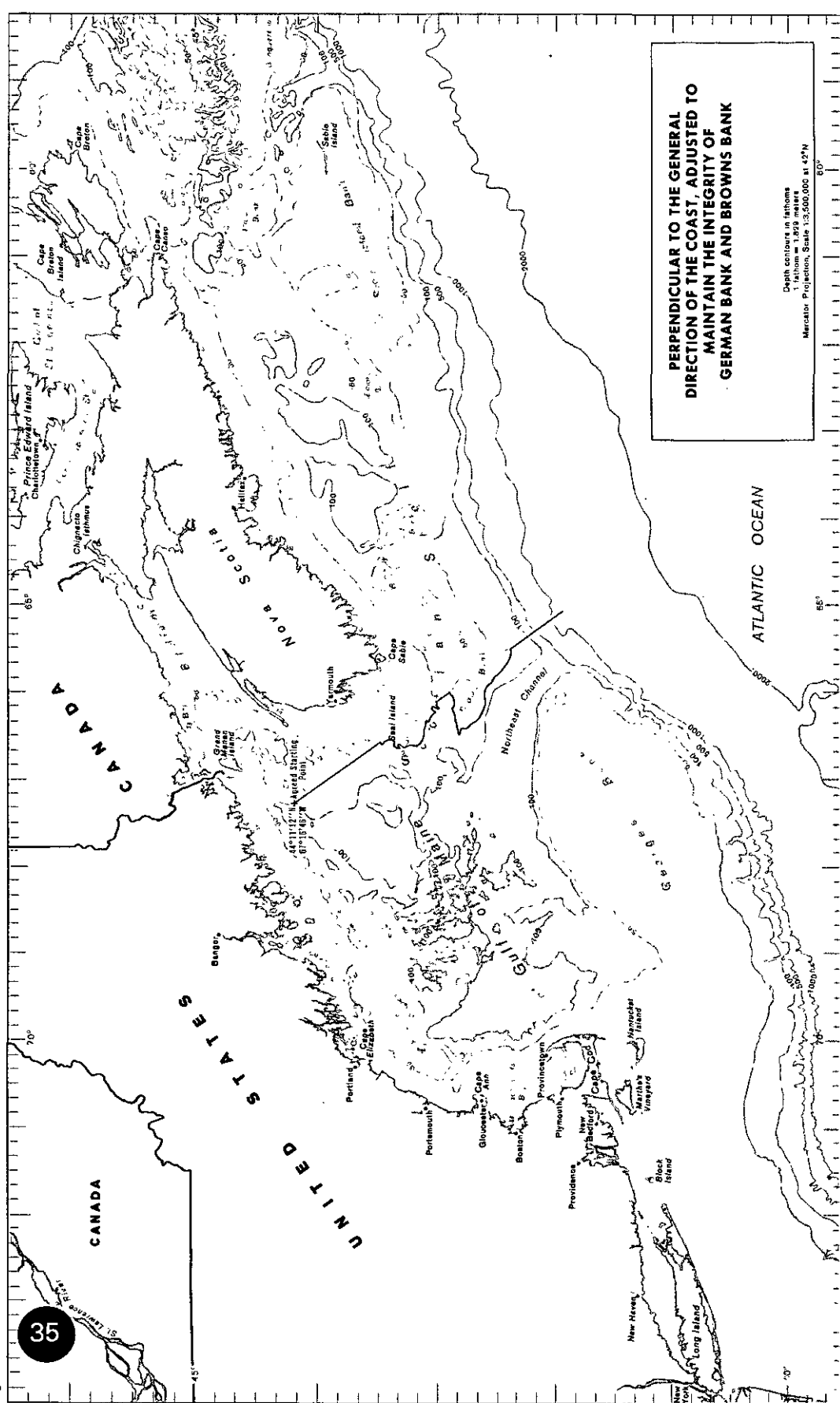




PERPENDICULAR TO THE  
GENERAL DIRECTION OF THE COAST FROM  
THE STARTING POINT ESTABLISHED BY  
ARTICLE II OF THE SPECIAL AGREEMENT

Depth contours in fathoms  
1 fathom = 1.829 meters  
Mercator Projection, Scale 1:5,000,000 at 42°N

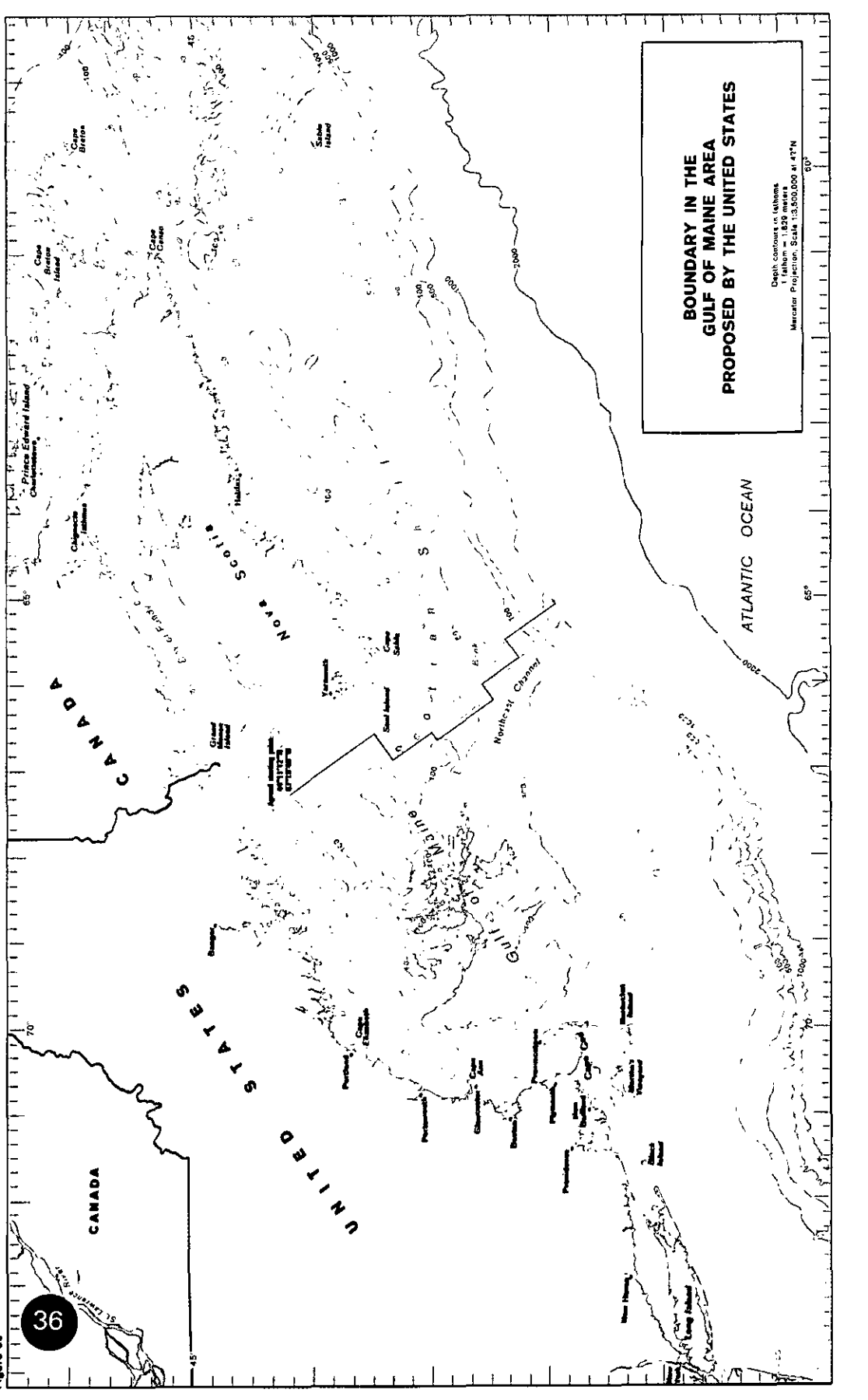
Figure 29



**PERPENDICULAR TO THE GENERAL  
DIRECTION OF THE COAST, ADJUSTED TO  
MAINTAIN THE INTEGRITY OF  
GERMAN BANK AND BROWNS BANK**

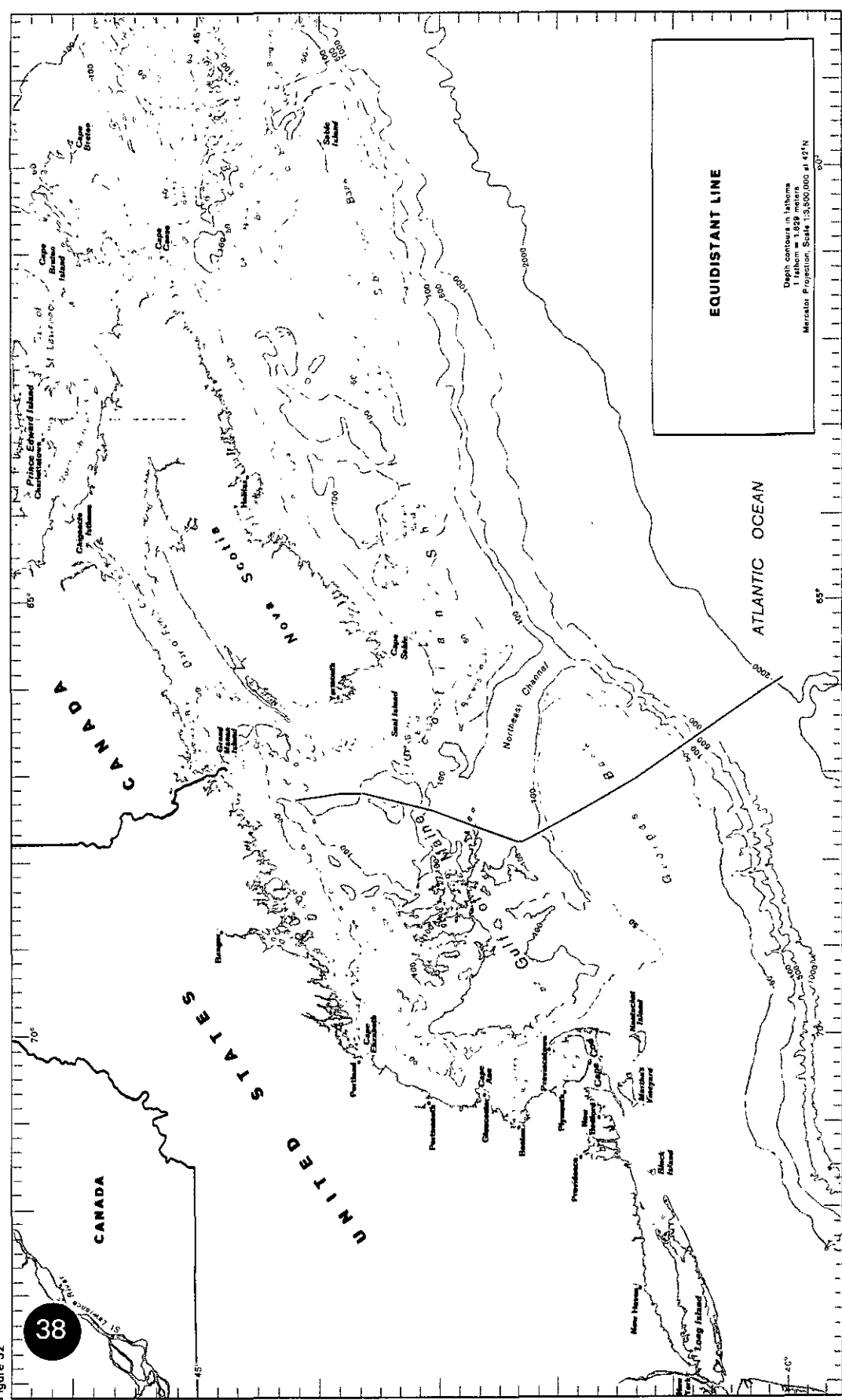
Depth contours in fathoms  
Scale of graphic, 1:50,000  
Meridator, Projection, Scale 1:5,000,000 at 42°N

35





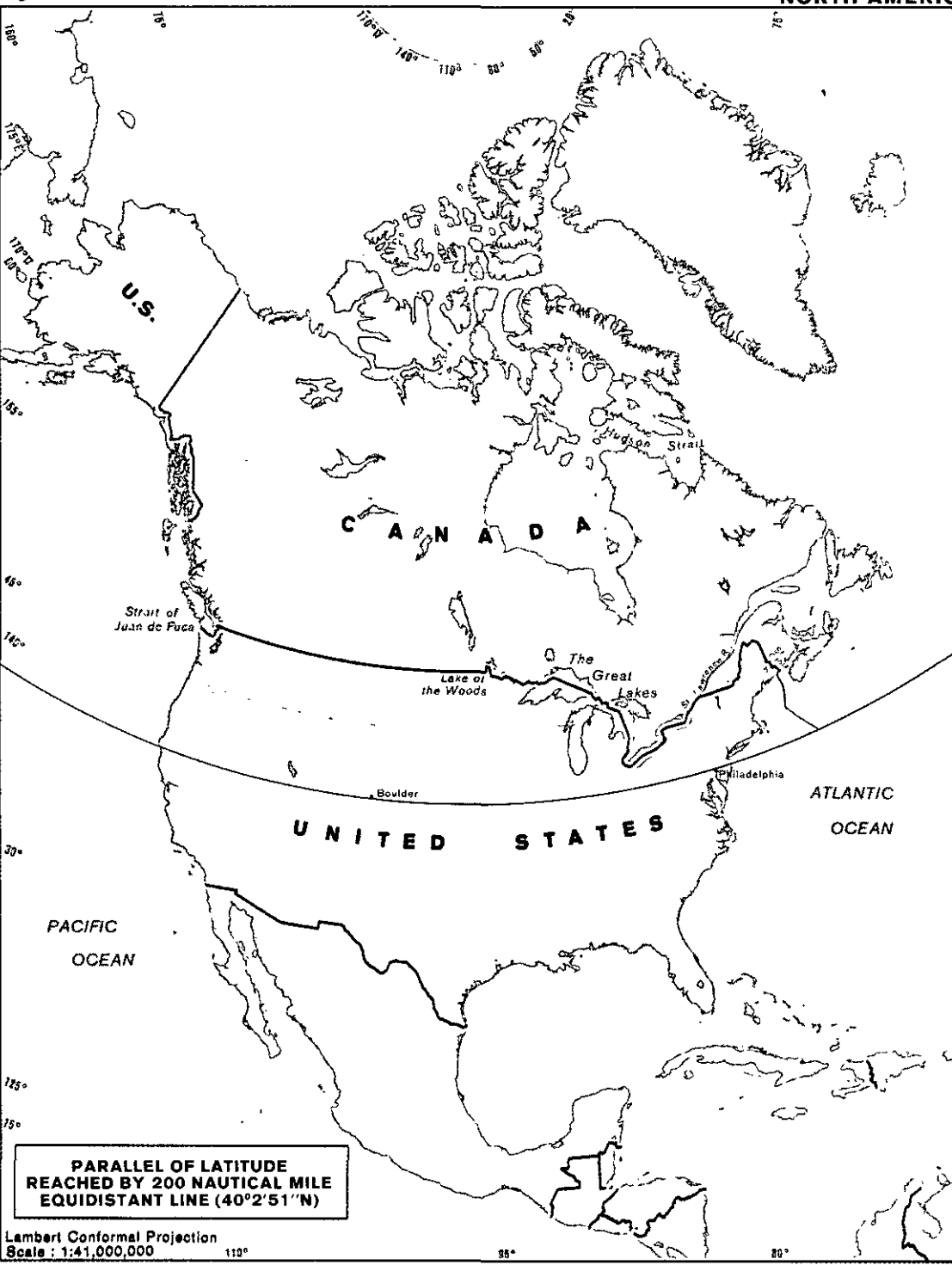




**EQUIDISTANT LINE**

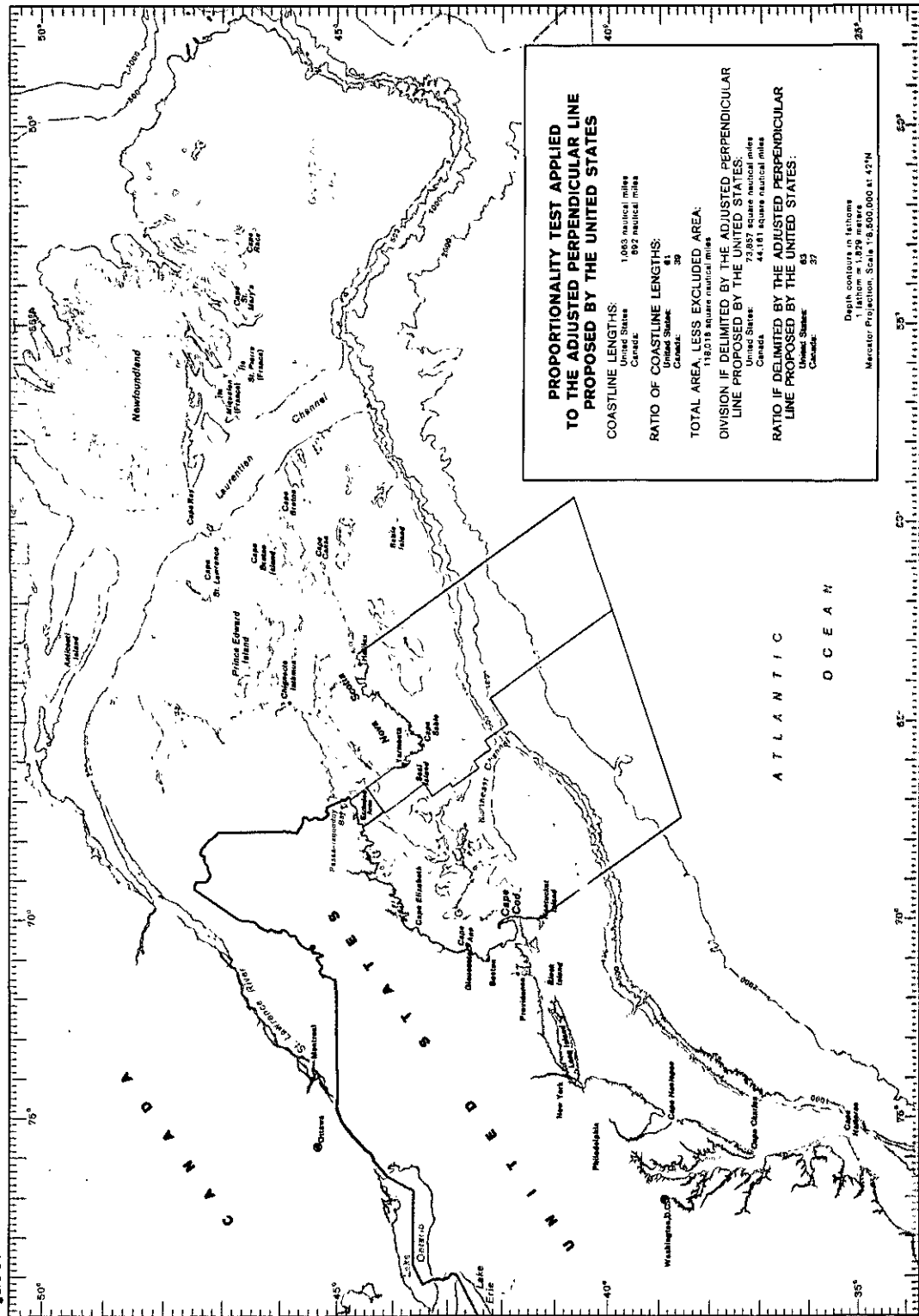
Depth contours in fathoms  
 1 fathom = 1.829 meters  
 Mercator Projection, Scale 1:5,300,000 at 49°N

Figure 33



**PARALLEL OF LATITUDE  
REACHED BY 200 NAUTICAL MILE  
EQUIDISTANT LINE (40°2'51''N)**

Lambert Conformal Projection  
Scale : 1:41,000,000



**PROPORTIONALITY TEST APPLIED  
TO THE ADJUSTED PERPENDICULAR LINE  
PROPOSED BY THE UNITED STATES**

**COASTLINE LENGTHS:**  
 United States: 1,063 nautical miles  
 Canada: 692 nautical miles

**RATIO OF COASTLINE LENGTHS:**  
 United States: 61  
 Canada: 39

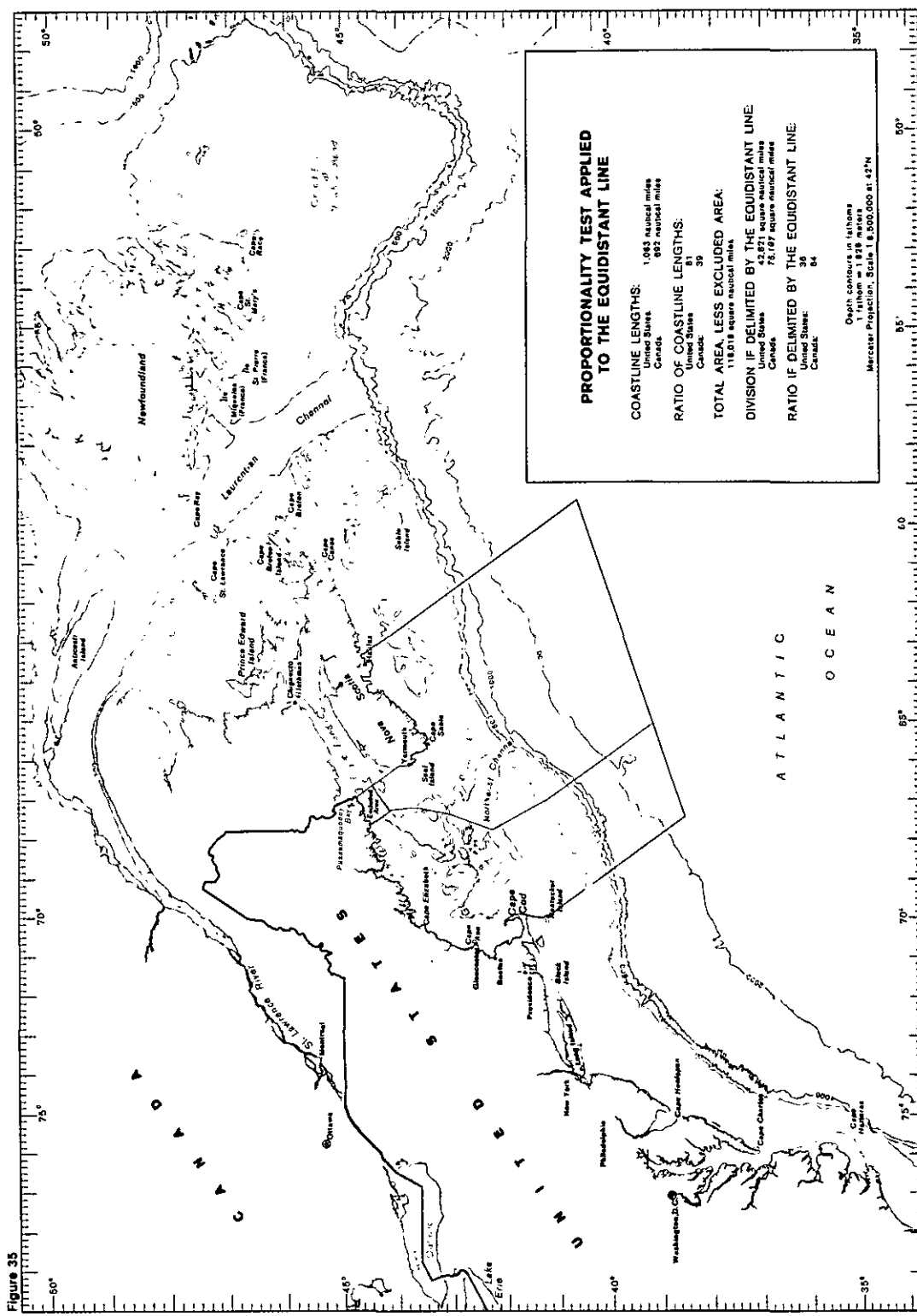
**TOTAL AREA, LESS EXCLUDED AREA:**  
 118,216 square nautical miles

**DIVISION IF DELIMITED BY THE ADJUSTED PERPENDICULAR  
LINE PROPOSED BY THE UNITED STATES:**  
 United States: 73,857 square nautical miles  
 Canada: 44,181 square nautical miles

**RATIO IF DELIMITED BY THE ADJUSTED PERPENDICULAR  
LINE PROPOSED BY THE UNITED STATES:**  
 United States: 63  
 Canada: 37

Depth contours in fathoms  
 1 fathom = 1,829 meters  
 Mercator Projection, Scale 1:9,500,000 at 45°N

Figure 35



**PROPORTIONALITY TEST APPLIED TO THE EQUIDISTANT LINE**

**COASTLINE LENGTHS:**  
 United States: 1,083 nautical miles  
 Canada: 892 nautical miles

**RATIO OF COASTLINE LENGTHS:**  
 United States: 1.21  
 Canada: .98

**TOTAL AREA, LESS EXCLUDED AREA:**  
 119,816 square nautical miles.

**DIVISION IF DELIMITED BY THE EQUIDISTANT LINE:**  
 United States: 42,971 square nautical miles  
 Canada: 76,845 square nautical miles

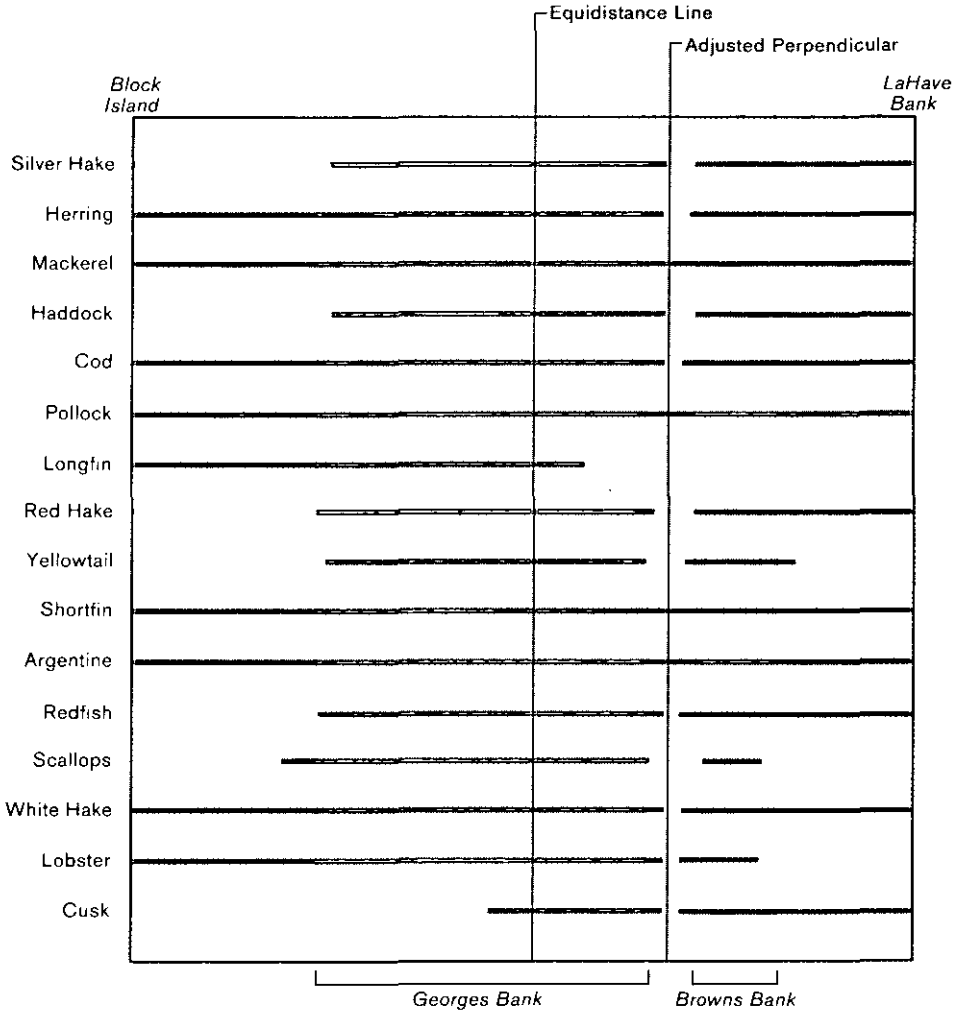
**RATIO IF DELIMITED BY THE EQUIDISTANT LINE:**  
 United States: .38  
 Canada: .62

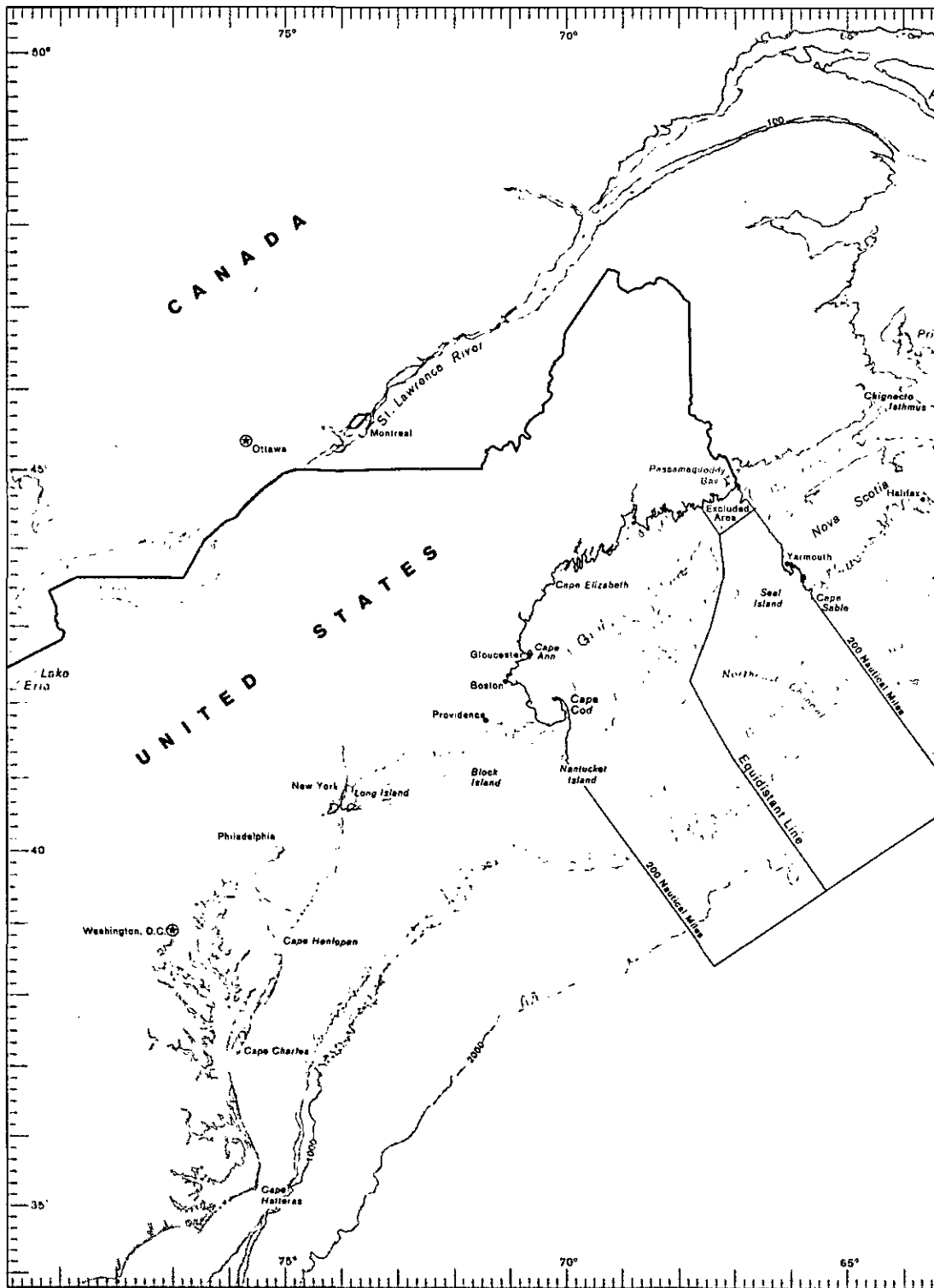
Depth contours in fathoms  
 1 fathom = 1.828 meters  
 Mercator Projection, Scale 1:8,500,000 at 42°N

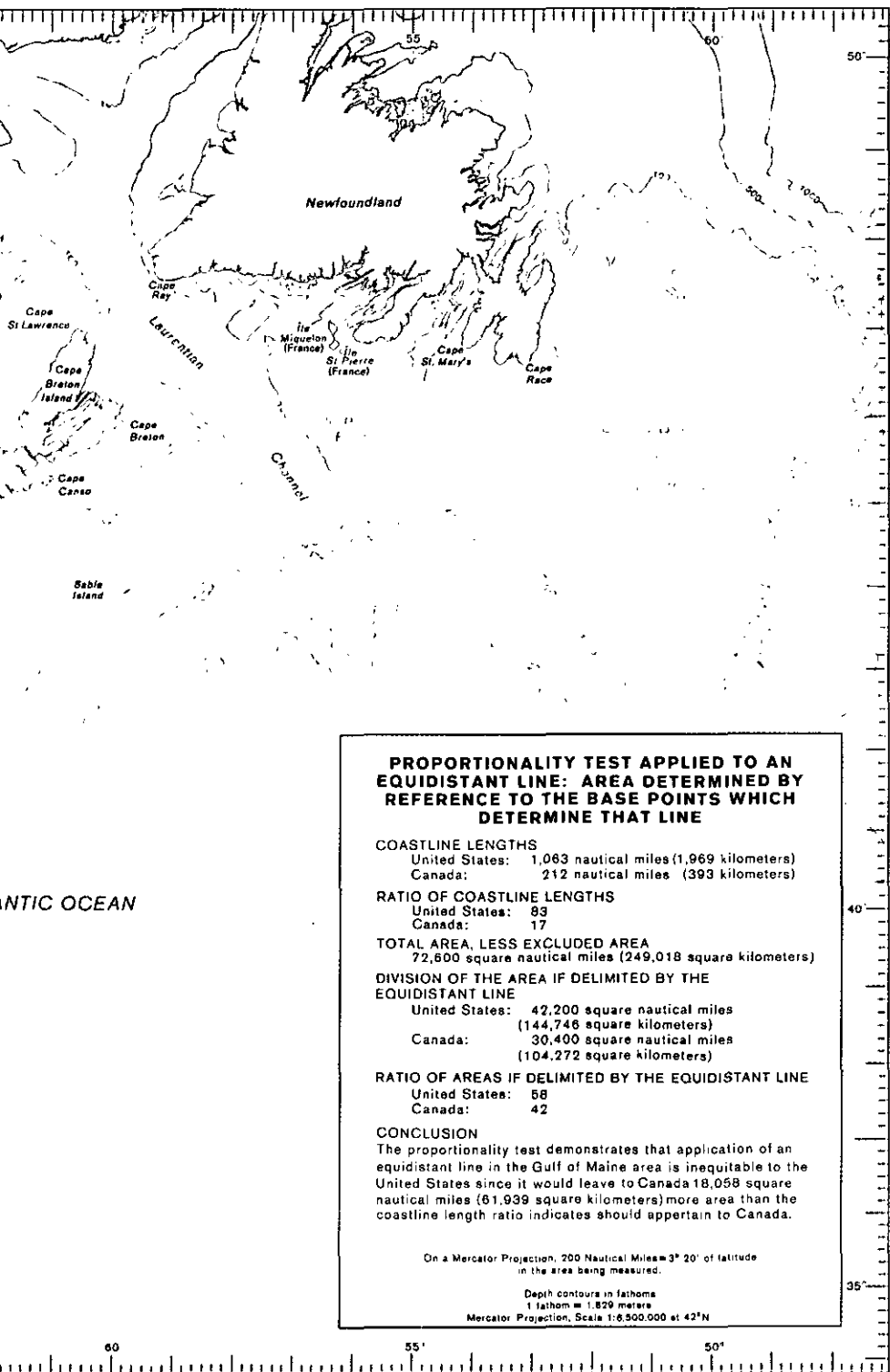
Figure 36

**DIVISION OF STOCKS OF COMMERCIALY IMPORTANT SPECIES BY THE ADJUSTED PERPENDICULAR LINE AND THE EQUIDISTANT LINE**

**The Zone in which the Range of Stocks is Depicted Extends from Block Island (Rhode Island), across Georges Bank, the Northeast Channel, and Browns Bank to LaHave Bank**







**PROPORTIONALITY TEST APPLIED TO AN EQUIDISTANT LINE: AREA DETERMINED BY REFERENCE TO THE BASE POINTS WHICH DETERMINE THAT LINE**

**COASTLINE LENGTHS**

United States: 1,063 nautical miles (1,969 kilometers)  
 Canada: 212 nautical miles (393 kilometers)

**RATIO OF COASTLINE LENGTHS**

United States: 83  
 Canada: 17

**TOTAL AREA, LESS EXCLUDED AREA**

72,600 square nautical miles (249,018 square kilometers)

**DIVISION OF THE AREA IF DELIMITED BY THE EQUIDISTANT LINE**

United States: 42,200 square nautical miles  
 (144,746 square kilometers)  
 Canada: 30,400 square nautical miles  
 (104,272 square kilometers)

**RATIO OF AREAS IF DELIMITED BY THE EQUIDISTANT LINE**

United States: 58  
 Canada: 42

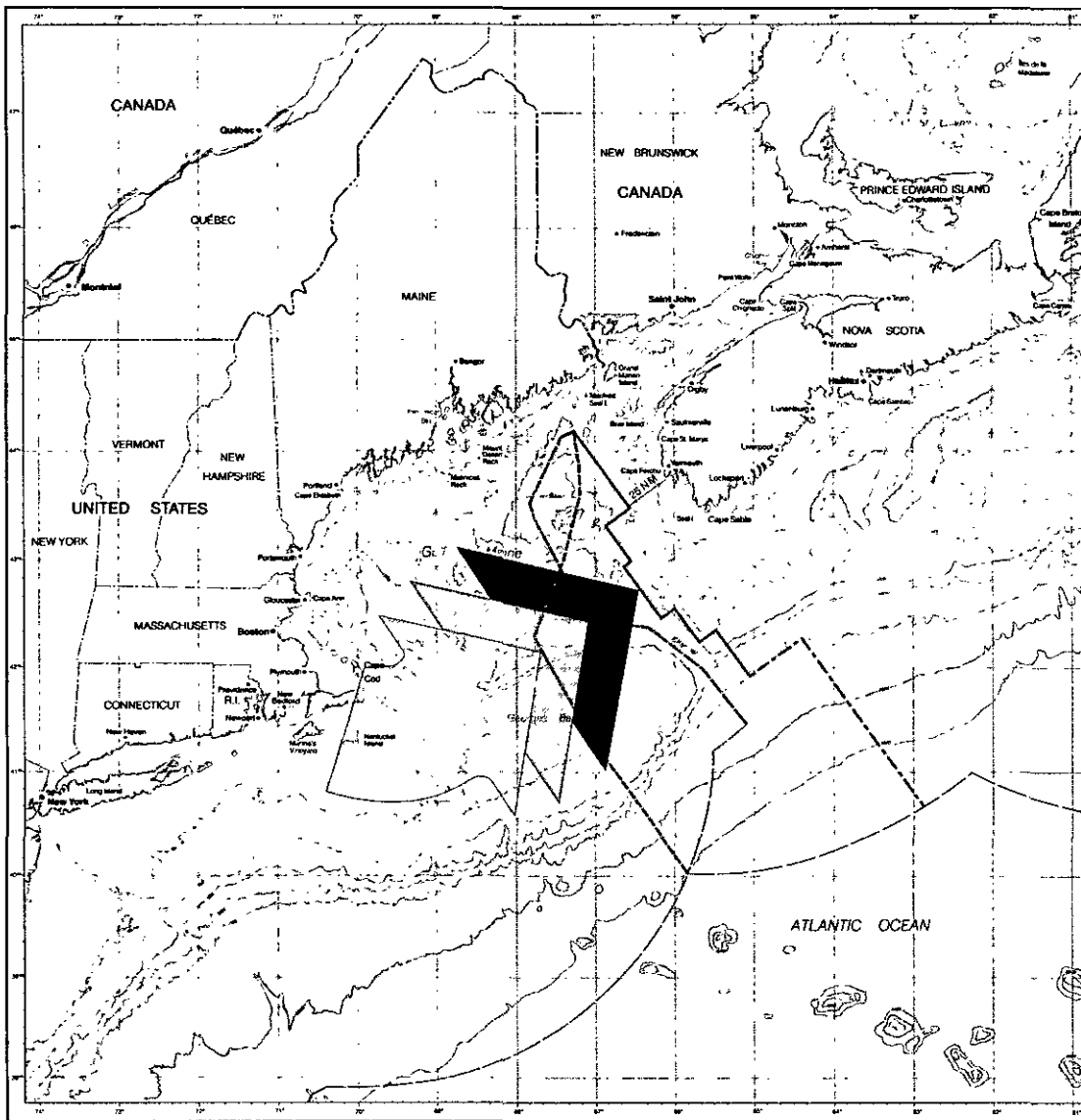
**CONCLUSION**

The proportionality test demonstrates that application of an equidistant line in the Gulf of Maine area is inequitable to the United States since it would leave to Canada 18,058 square nautical miles (61,939 square kilometers) more area than the coastline length ratio indicates should appertain to Canada.

On a Mercator Projection, 200 Nautical Miles = 3° 20' of latitude in the area being measured.

Depth contours in fathoms  
 1 fathom = 1.829 meters  
 Mercator Projection, Scale 1:6,500,000 at 42°N

ANTIC OCEAN



**Figure 1**

**The Advancing Claims of the United States**



Equidistance line utilized by Canada in issuing offshore oil and gas exploratory permits and recognized by the United States, 1965-1969



United States claim as promulgated in the United States Federal Register, 4 November 1976



"Adjusted perpendicular line" proposed by the United States, 27 September 1982



Extension of the "adjusted perpendicular line" as shown in Figure 34 of the United States Memorial



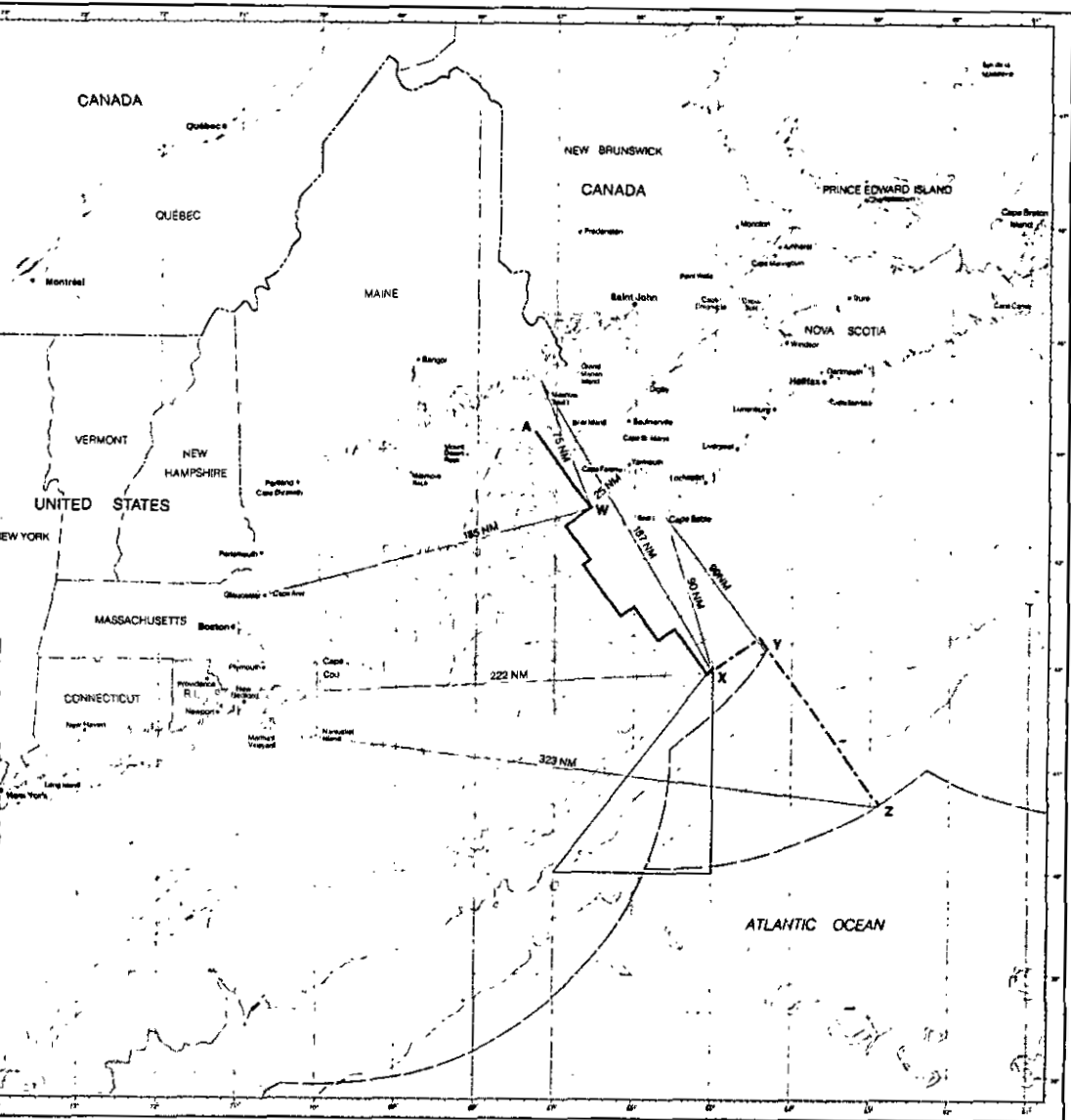
Outer limit of the United States 200-mile zone



Outer limit of the Canadian 200-mile zone

Depths in Metres  
Projection—Mercator  
Scale—1:4 700 000 at 41° N





**Figure 2**  
**The 1982 United States Boundary Proposal, the Triangle and the 200-Mile Zones**

This Figure illustrates the relationship of the 1982 United States boundary proposal to the triangle defined in Article II of the Special Agreement and to the outer limits of the 200-mile exclusive economic zone of the United States and the 200-mile fishing zone of Canada. The distances shown are measured between the United States line and points on the coasts of Canada and the United States. The United States line cannot intersect the outer limit of the United States 200-mile zone within the triangle.

- "Adjusted perpendicular line" proposed by the United States, 27 September 1982.
- Extension of the "adjusted perpendicular line" as shown in Figure 34, United States Memorial.
- Outer limit of the United States 200-mile exclusive economic zone, as claimed by the United States. This outer limit has been extended to intersect the extension of the line proposed by the United States.
- Outer limit of the Canadian 200-mile zone.

Depth in Metres  
 Projection - Mercator  
 Scale - 1:4 700 000 at 41° N

**Figure 3**

## Effects Produced by Selective Representation of Bathymetric Contours

**A**  
Contours at 60, 300, 500 and 1000 metres

Note: The 60-metre contour defines the Great South Channel.

**B**  
Contours at 60, 100, 300, 500, 1000 and 2000 metres

Note: The addition of the 100-metre contour defines the Northeast Channel and Browns Bank.

**C**  
Contours at 40, 60, 240, 300, 1000 and 2000 metres

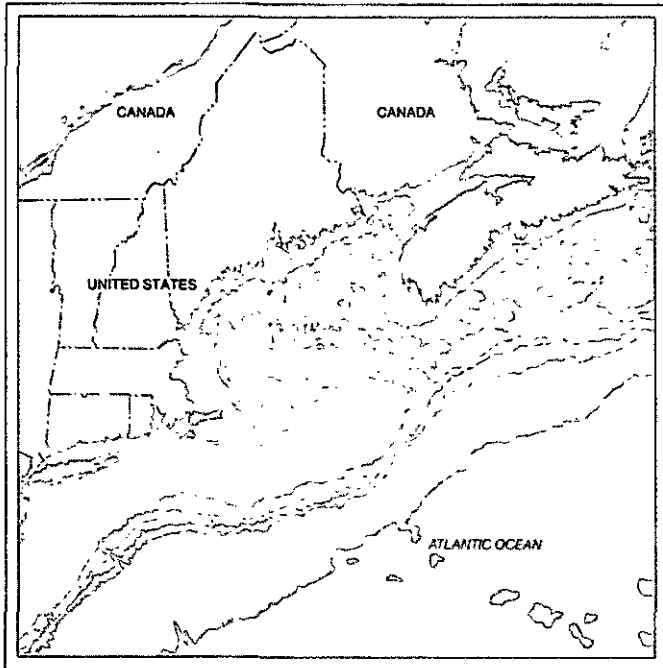
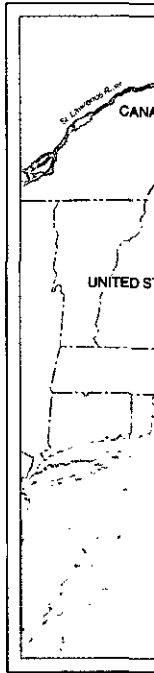
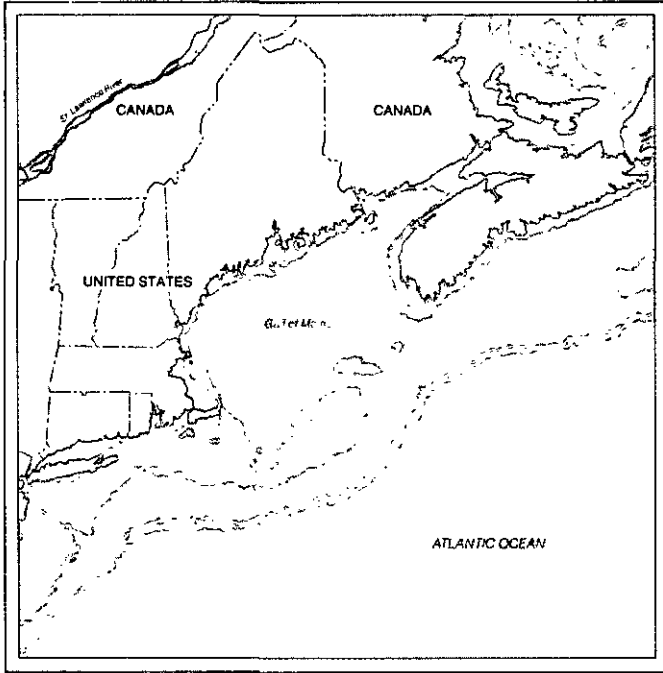
Note: The addition of the 40-metre contour improves the definition of Georges Bank and the addition of the 240-metre contour shows the sill of the Northeast Channel.

**D**  
Contours at 50, 100, 500, 1000 and 2000 fathoms

Note: These are the contours shown on the United States base map. They do not define the Great South Channel or Georges Bank.

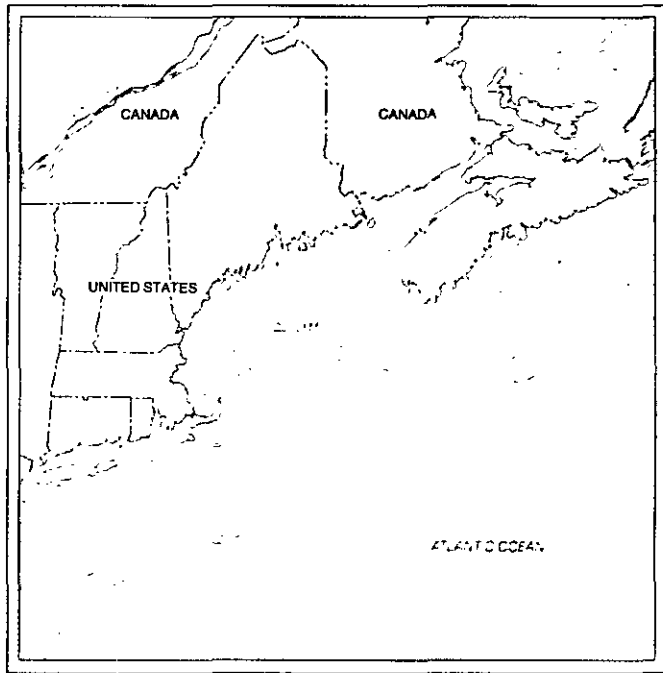
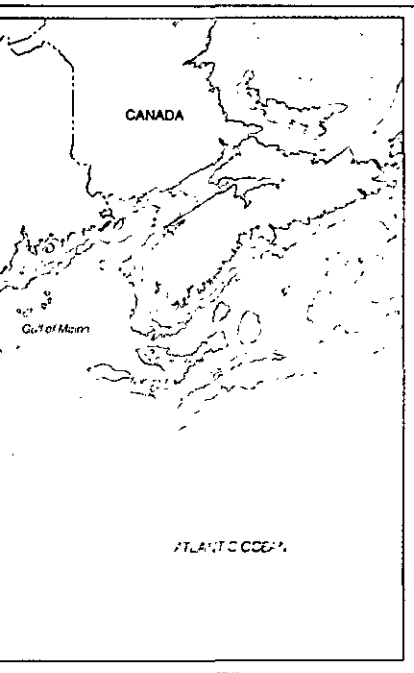
**E**  
Contours at 60, 100, 200, 1000, 2000, 3000 and 4000 metres

Note: These are the contours shown on the Canadian base map. They define the seaward rim of the Gulf of Maine; the Nantucket Shoals, the Great South Channel, Georges Bank, and the shoal areas of southwest Nova Scotia. Within the Gulf of Maine, they illustrate the many superficial depressions that characterize this area.

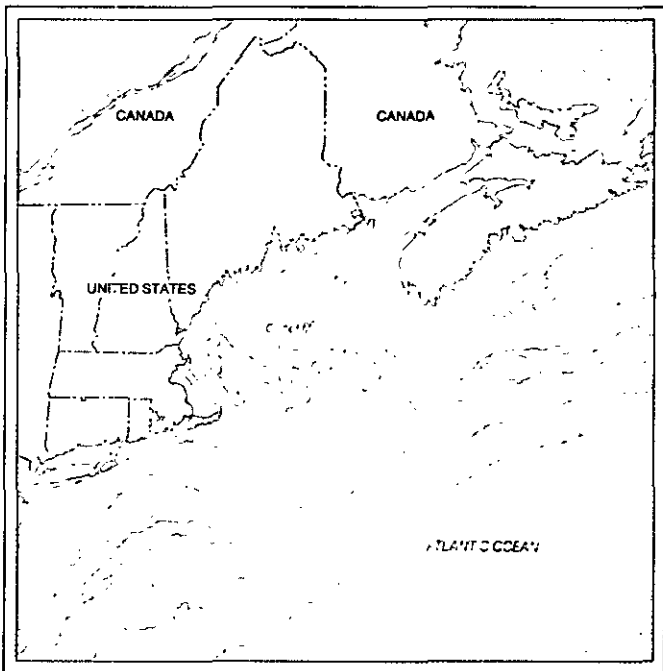


**D**

Projection - Mercator  
Scale - 1:10 000 000 at 41° N



C



E

Figure 4

# Juxtaposition of Eastern Canada and the Eastern United States East of Longitude 96° West



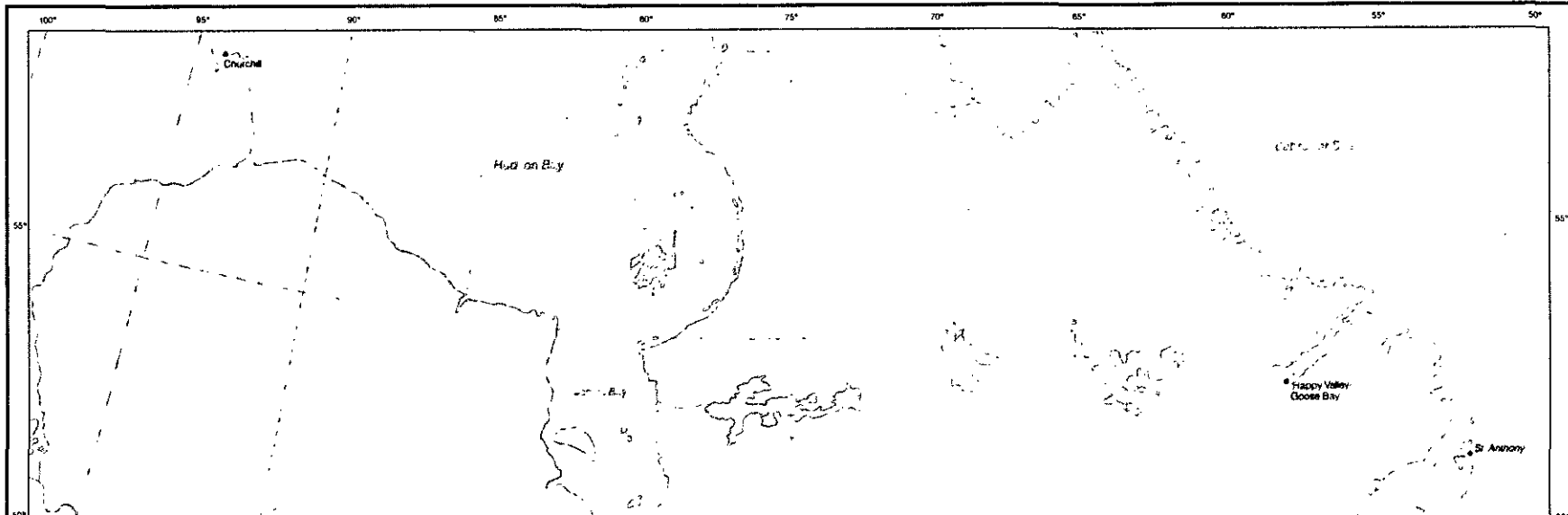
Regions of Canada lying south  
of regions of the United States



Regions of the United States  
lying north of regions of  
Canada

Note: These regions lie in an  
east-west relationship to each  
other.

Projection - Lambert Conformal  
Scale - 1:12 000 000





UNITED STATES

ATLANTIC OCEAN

Corner St

Chesapeake Bay  
Delaware Bay

St. Pierre and Miquelon (France)

Sydney

Duluth

Minneapolis

Green Bay

Milwaukee

Chicago

Green Bay

Lake Superior

Lake Michigan

Lake Huron

Lake Erie

Lake Ontario

Detroit

Lansing

Toledo

Cleveland

Columbus

Cincinnati

Albany

New York

Boston

Concord

Montpelier

August

Sydney

CANADA

Washington

New York

Montpelier

Concord

Boston

45°

40°

35°

65°

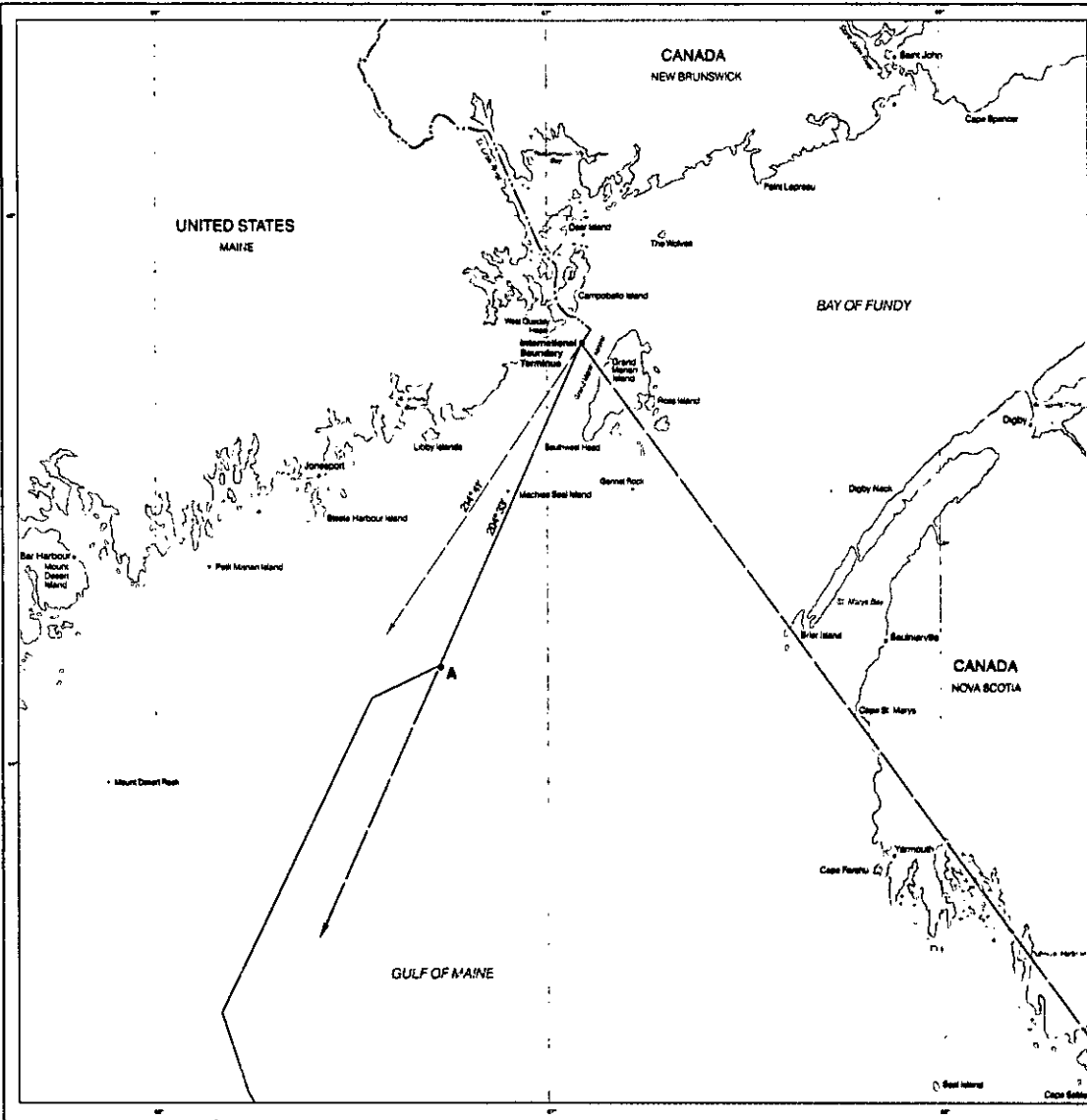
70°

75°

80°





85°

90°

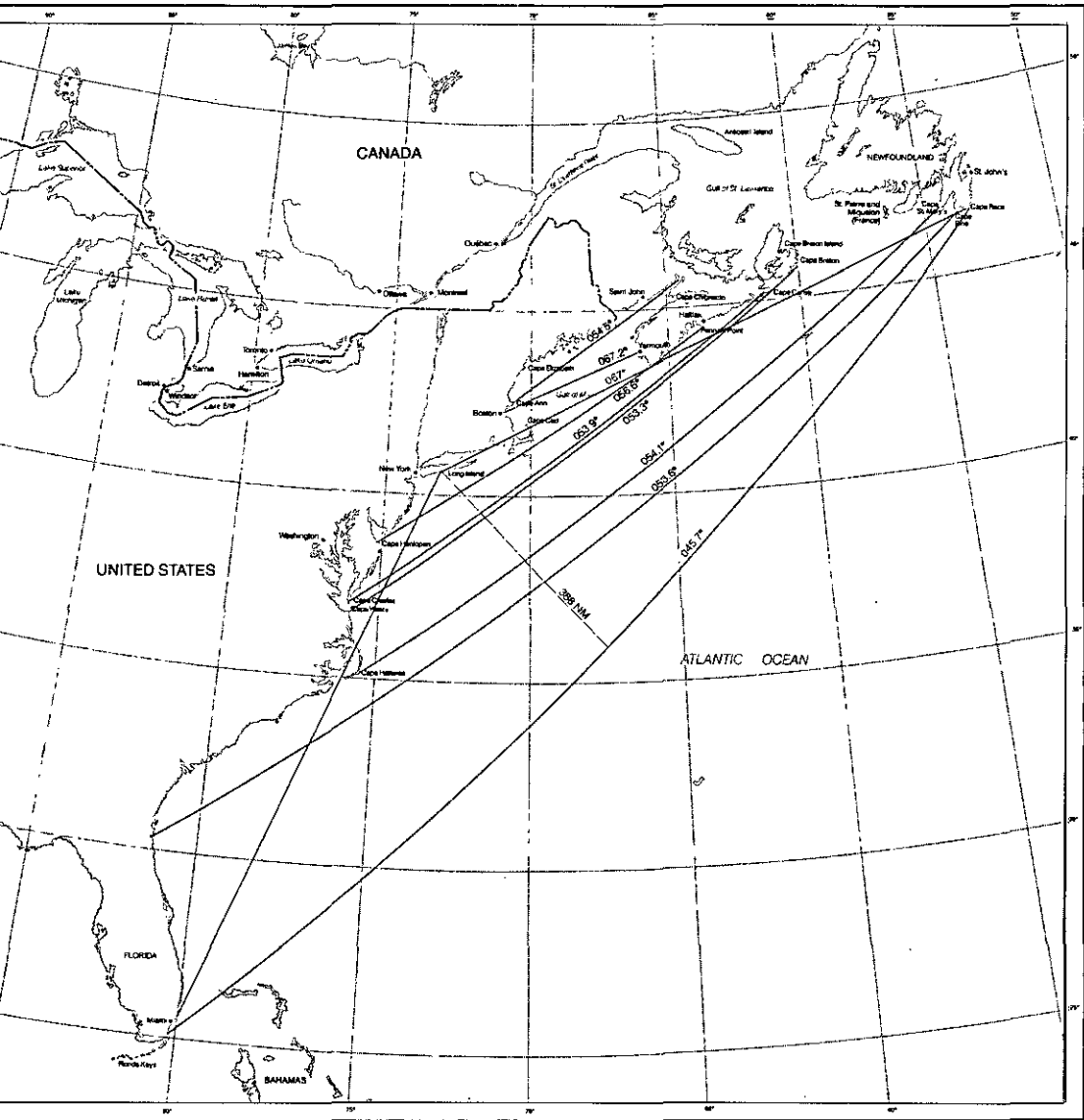


**Figure 5**

**The International Boundary Terminus and the Agreed Point of Commencement (Point A) of the Single Maritime Boundary**

-  Extension of the final azimuth of the international boundary
-  Line of bearing between the international boundary terminus and Point A
-  "Perpendicular to the general direction of the coast at the International boundary terminus" as depicted in Figure 27, United States Memorial
-  The United States claim at 4 November 1976 from Point A

Projection - Mercator  
Scale - 1:900 000 at 45° N

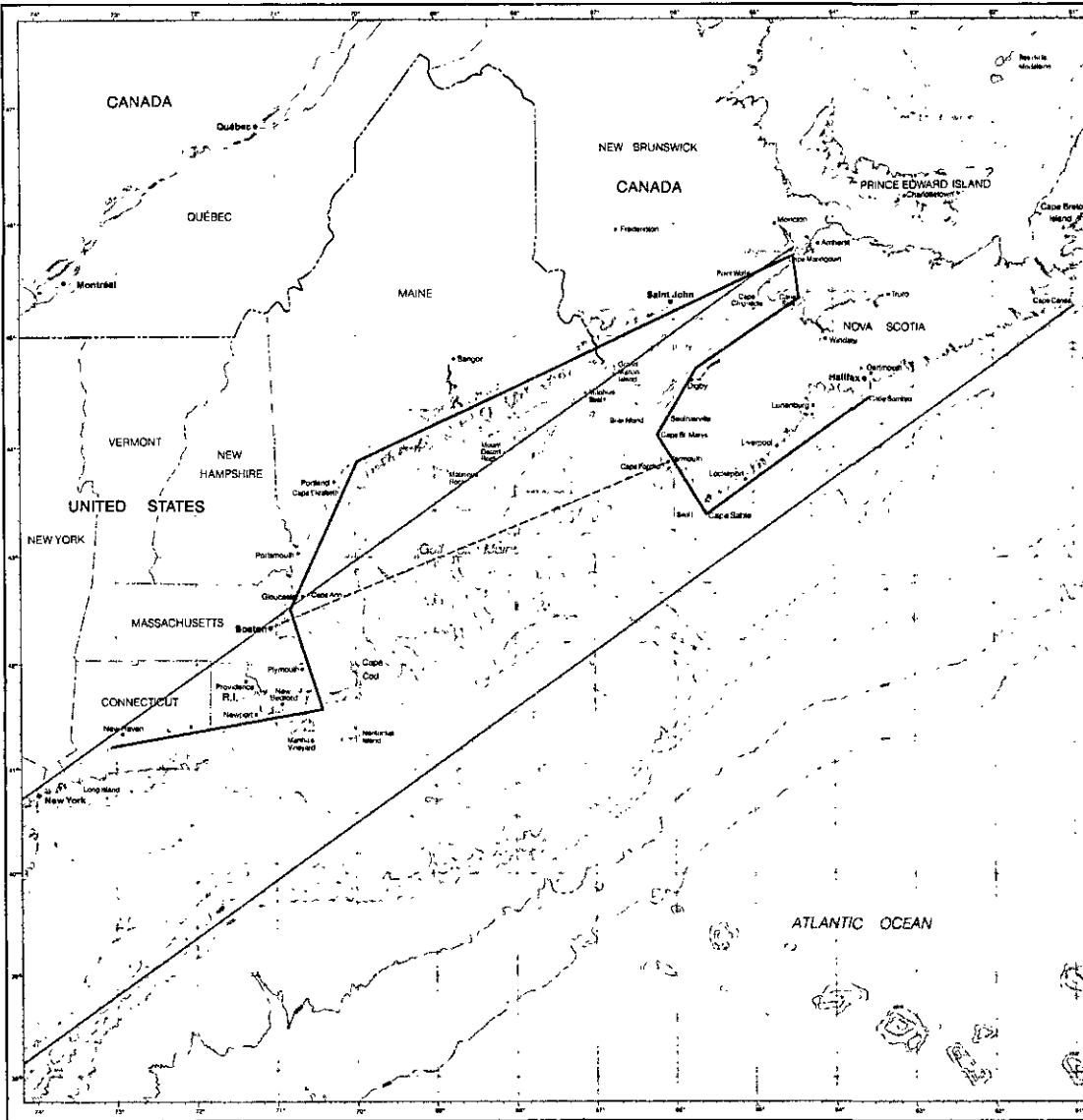


**Figure 6**  
**Macrogeographical**  
**General Directions**  
**of the East Coast of**  
**North America on a**  
**Lambert Conformal**  
**Projection**




Canadian general direction lines (geodesic) as illustrated in Figure 7, Canadian Memorial

United States general direction lines (loxodromes) as illustrated in Figure 26 or described in paragraph 21, footnote 2 of the United States Memorial

Projection - Lambert Conformal  
 Scale - 1:13,000,000



**Figure 7**  
**General Direction of the Coasts in the Gulf of Maine Area**

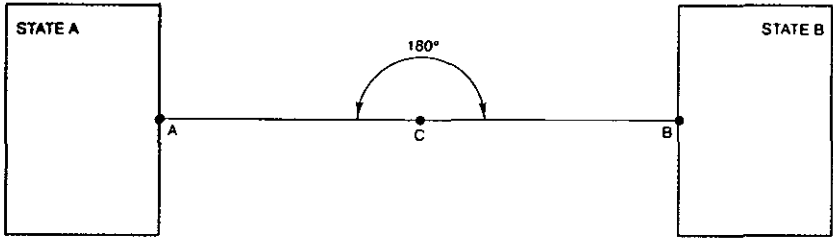
-  General direction of the coasts as defined by Canada
-  General direction of the coasts as defined by the United States
-  Yarmouth to Boston azimuth (067.2°) described in the United States Memorial as the general direction of the coast at 056.9°

Depths in Metres  
 Projection - Mercator  
 Scale - 1 : 4 700 000 at 41° N



Figure 8

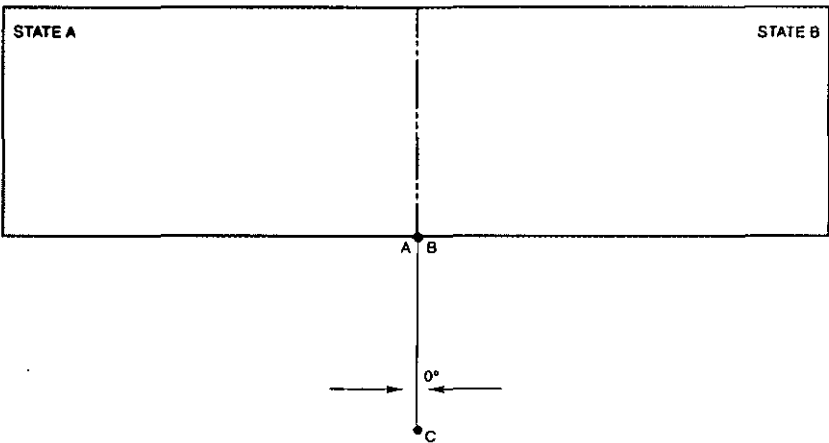
Opposite Coasts



51

Figure 9

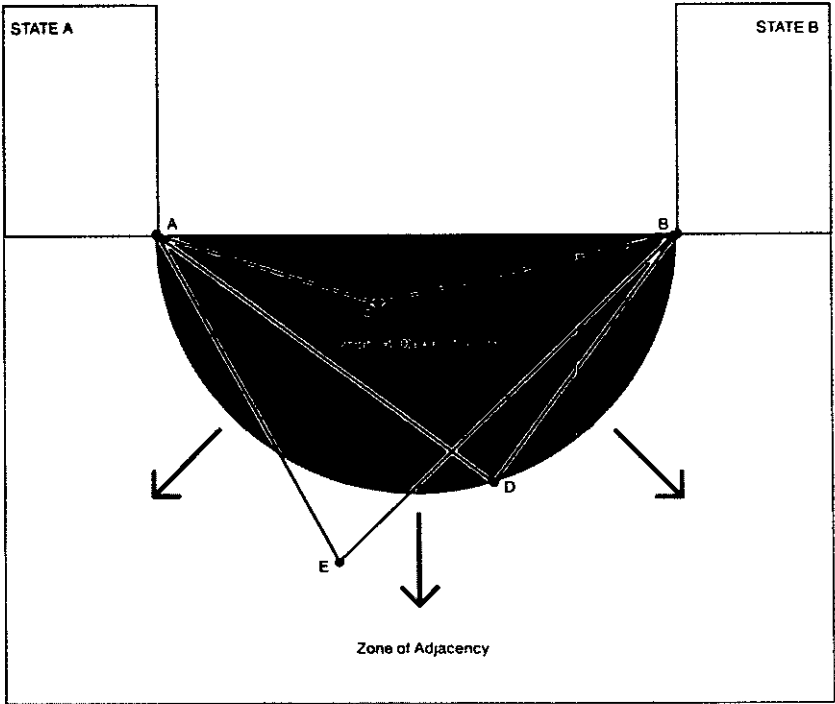
Adjacent Coasts



52

**Figure 10**

**Mixed Relationship  
of Oppositeness and  
Adjacency**



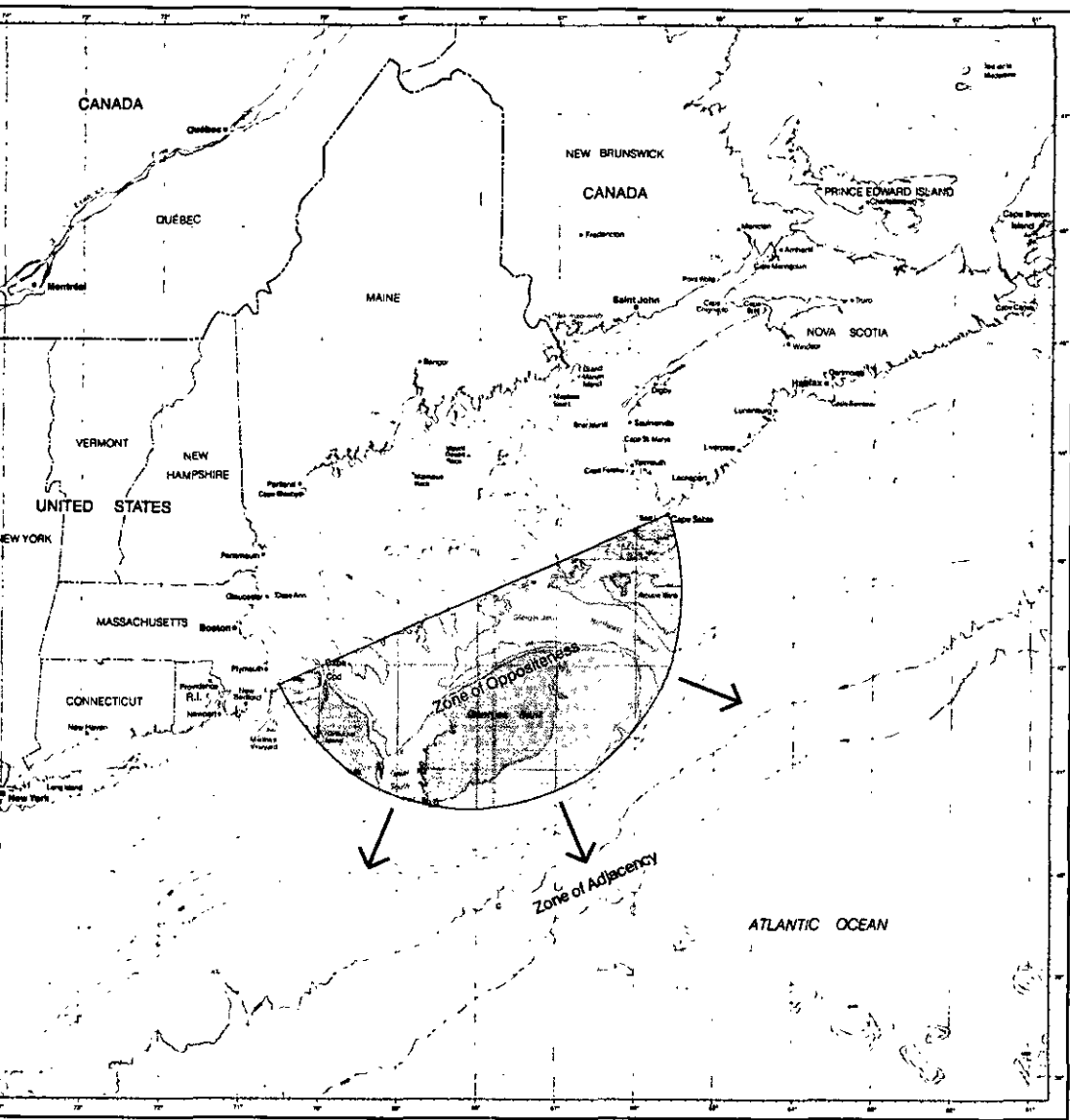


Figure 11

Application to the Outer Area of the Mathematical Analysis of the Opposite or Adjacent Relationship of the Coasts Relative to the Area to be Delimited

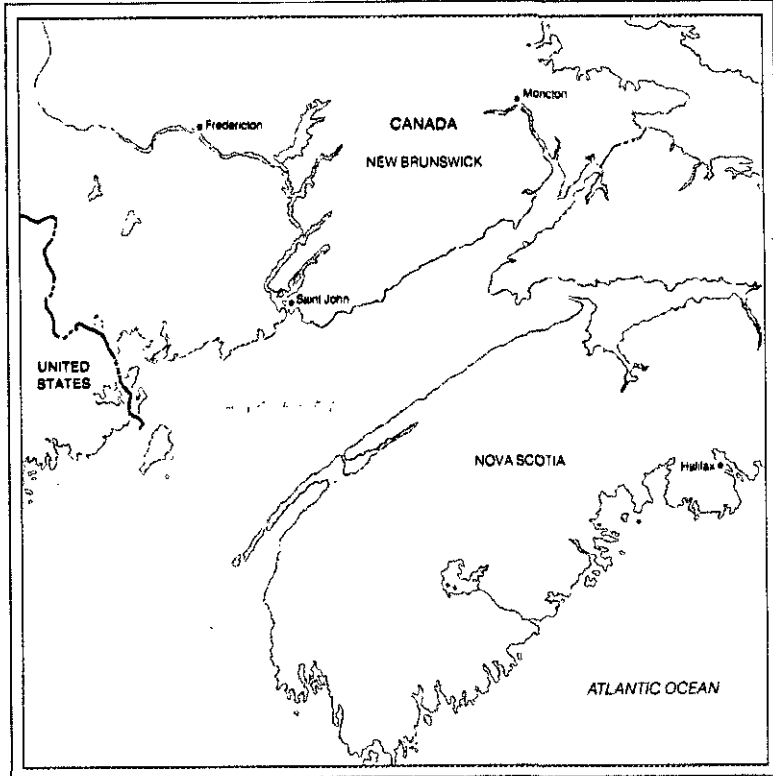
Depth in Metres  
 Projection - Mercator  
 Scale - 1 : 4 700 000 at 41° N

**Figure 13**

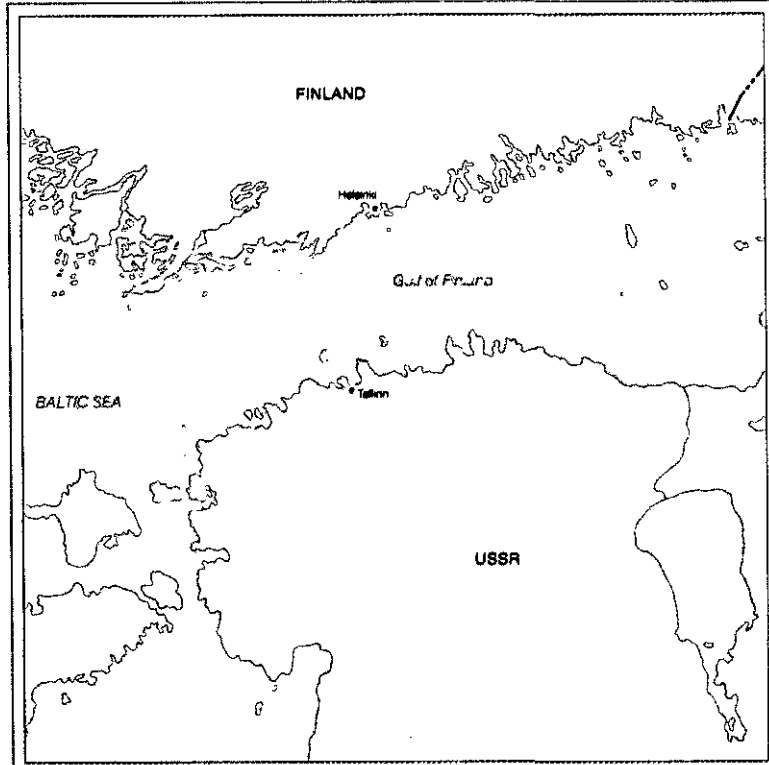
**The Bay of Fundy and Comparable Bodies of Water**

- A** Bay of Fundy
- B** The Gulf - Strait of Hormuz
- C** Gulf of Finland
- D** Gulf of Gabes

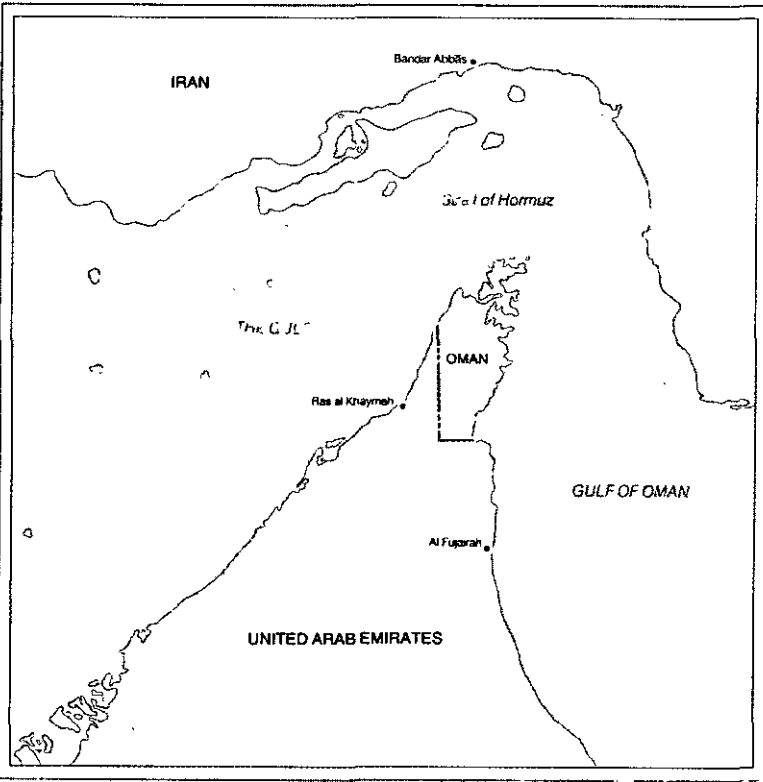
Note: Each of these bodies of water is depicted on a Lambert Conformal projection at a scale of 1:3 000 000



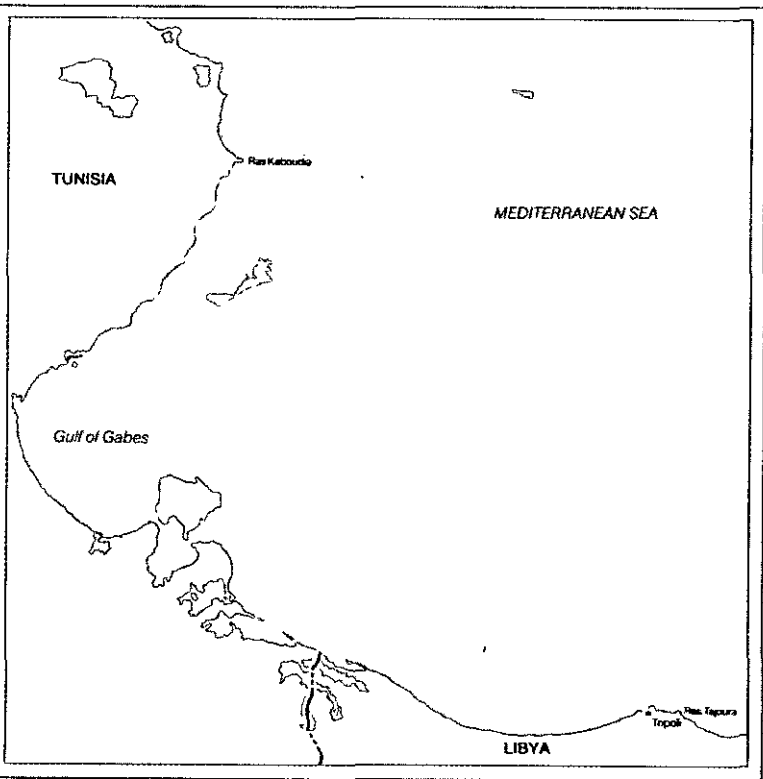
**A**



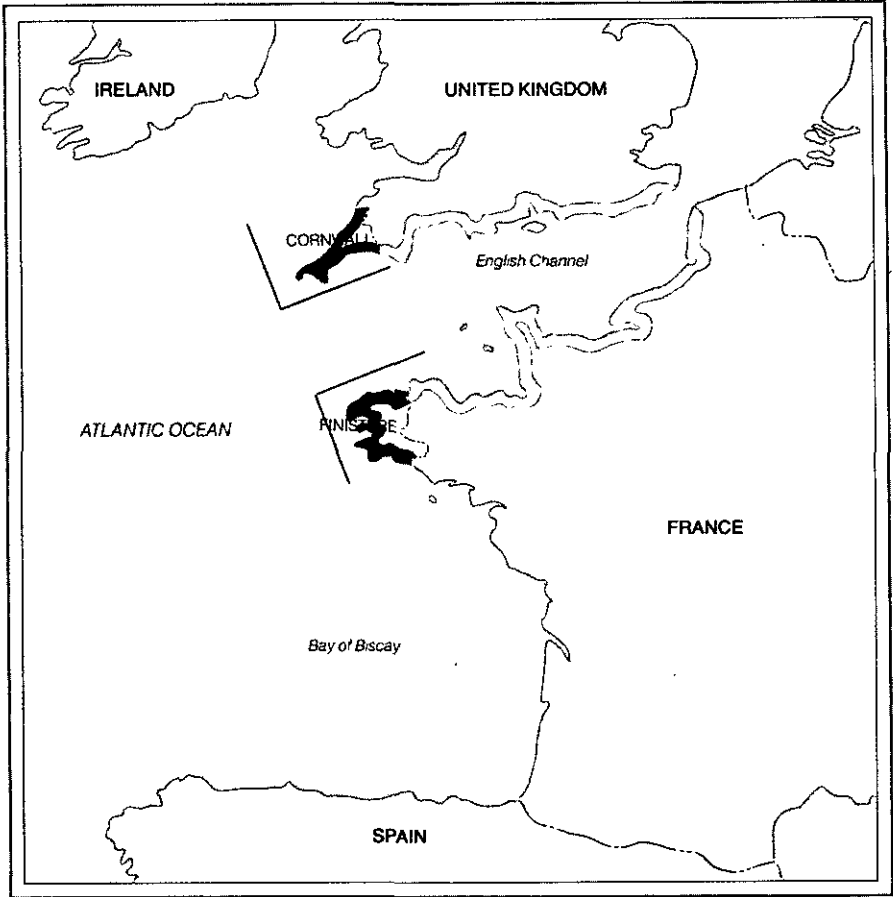
**C**



B



D



A

**Figure 14**

**The English Channel and the Gulf of Maine Area: The Relevant Coasts**



Coasts abutting the "Atlantic region" and "outer area"



Coasts abutting the English Channel and "inner area"

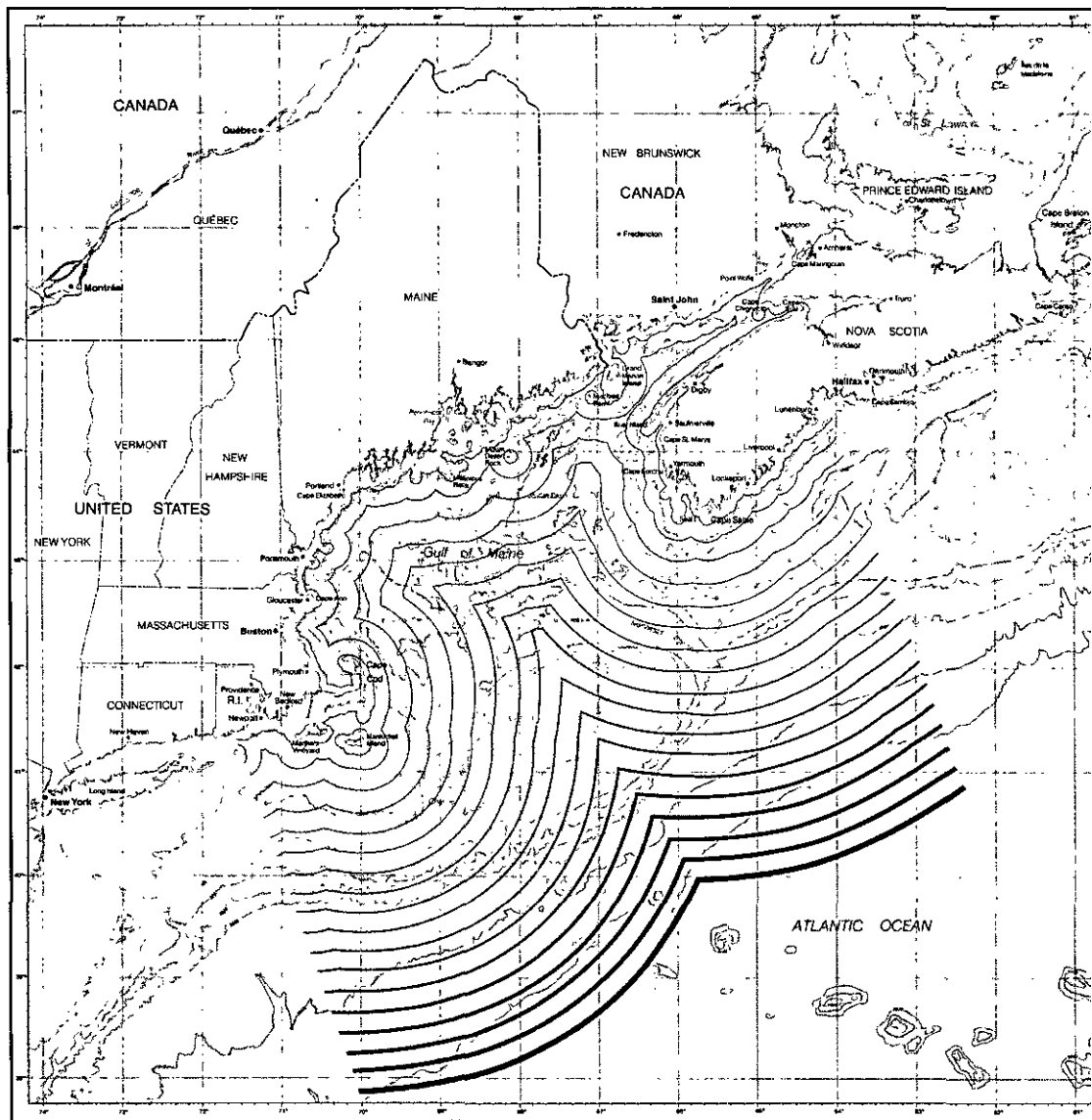
Note: The Gulf of Maine area and the area involved in the Anglo-French Continental Shelf Arbitration are shown at a scale of 1:10 000 000.



**B**

**A**  
Projection - Mercator  
Scale - 1:10 000 000 at 50° N

**B**  
Projection - Mercator  
Scale - 1:10 000 000 at 41° N

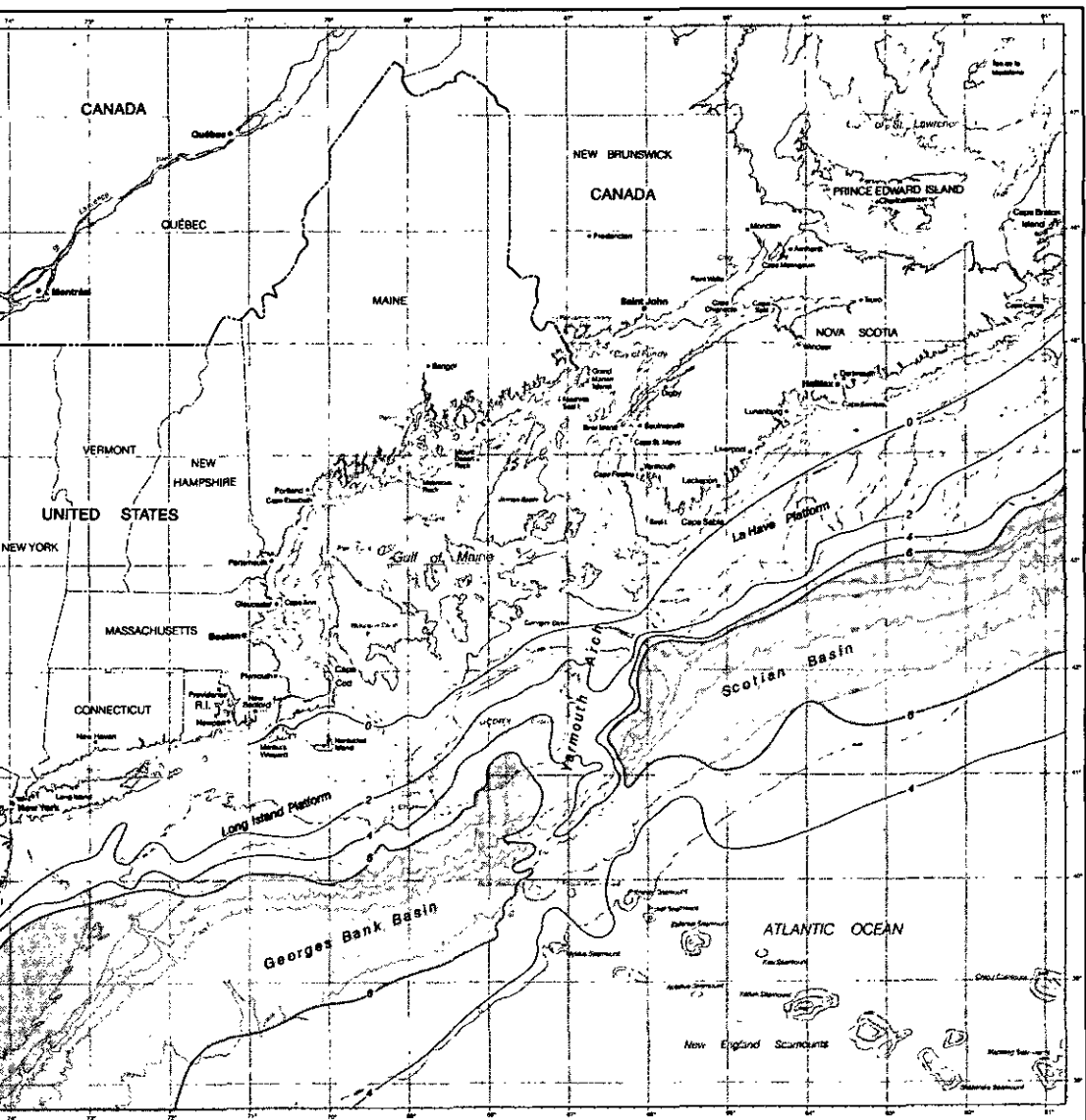


**Figure 15**  
**Seaward Extensions of the Canadian and United States Coasts**

The radial extension of coastal State jurisdiction in accordance with the distance principle as the legal basis of title  
 Radiating arcs of circles drawn from the coasts in the Gulf of Maine area at intervals of 3 and 12 miles

Depths in Metres  
 Projection - Mercator  
 Scale - 1 : 4 700 000 at 41° N

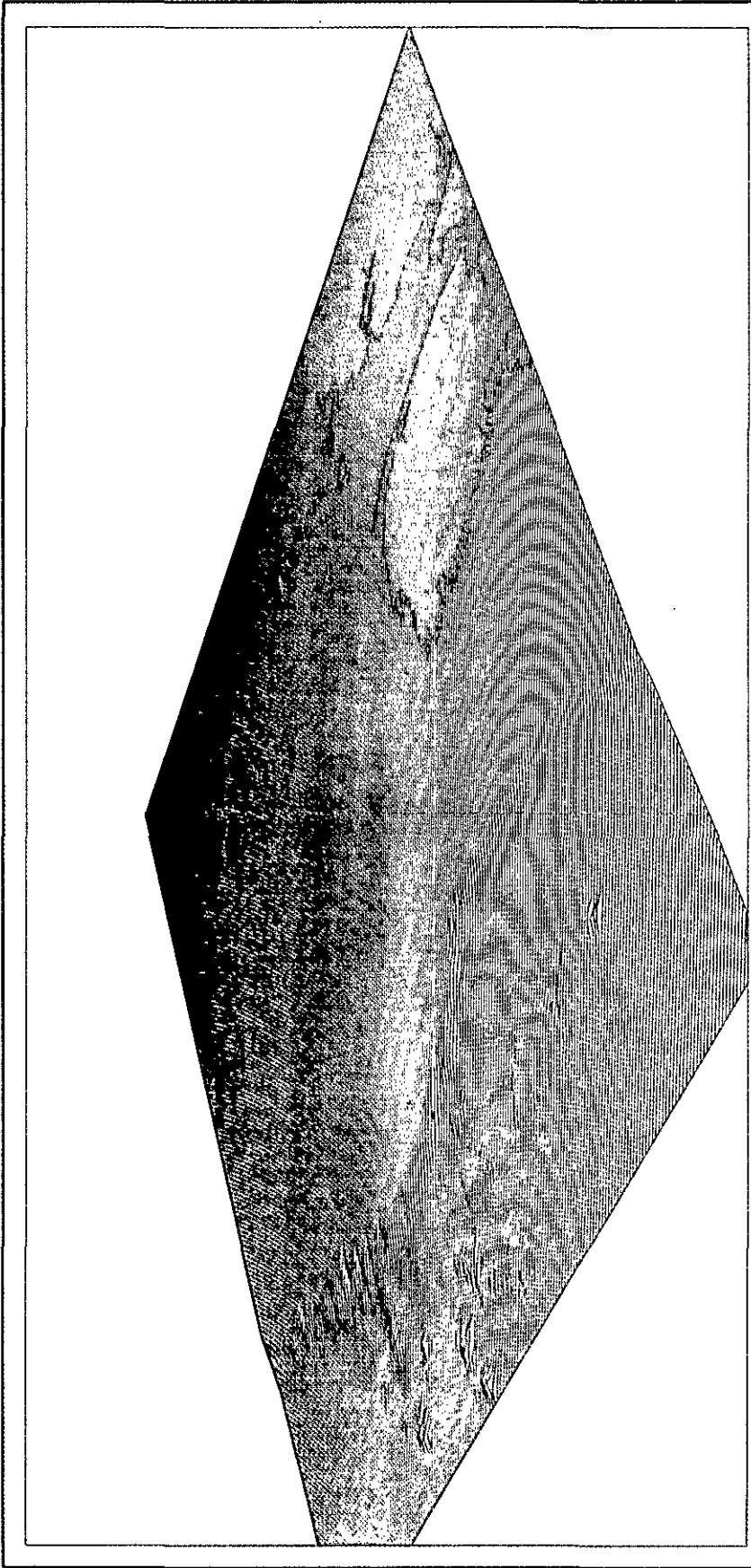


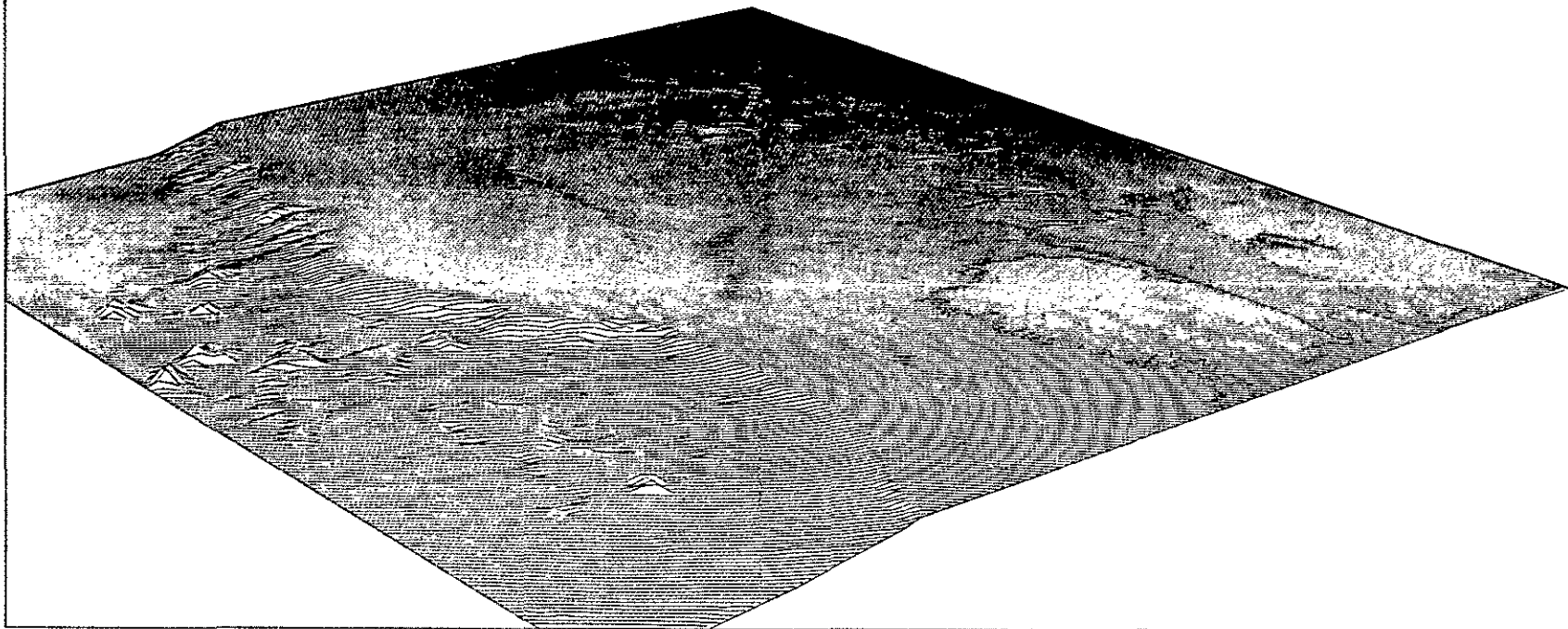


**Figure 16**  
**Subsurface**  
**Sedimentary Basins**

This Figure shows the major sedimentary basins of the Atlantic margin and the thickness of sediment fill in kilometres. The darker red colour represents the early depositional areas that were separated by the Yarmouth Arch. The lighter red area and beyond shows the thickness of sediments that are continuous across both basins. Note the projection of the Scotian Basin from the northeast beneath the Northeast Channel and Georges Bank, and the partial separation of the Scotian Basin and Georges Bank Basin by the Yarmouth Arch. Note also the trend of the New England Seamount Chain seaward of the Great South Channel area.

Depths in Metres  
 Projection - Mercator  
 Scale - 1 : 4 700 000 at 41° N





**Figure 17**

**Computer  
Generated  
Perspectives of the  
Sea Floor in the  
Gulf of Maine Area**

**A**  
Perspective image with 2X  
vertical exaggeration

**B**  
Perspective image with 5X  
vertical exaggeration

These images reveal the uniformity in the topography of the continental shelf, even when exaggerated to 2X and 5X. The only truly discernible features are the continental slope and the New England Seamount Chain.

Figure 18

**A Comparative Portrayal of Selected Submarine Depressions**



That portion of the water column lying above the shoulders of the submarine depression

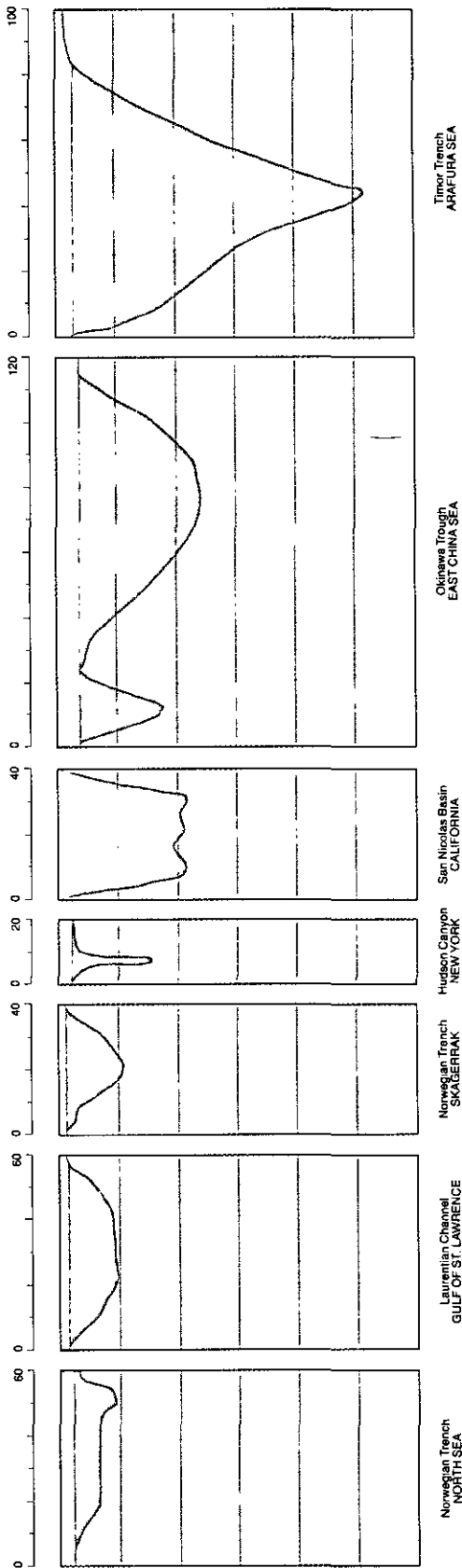
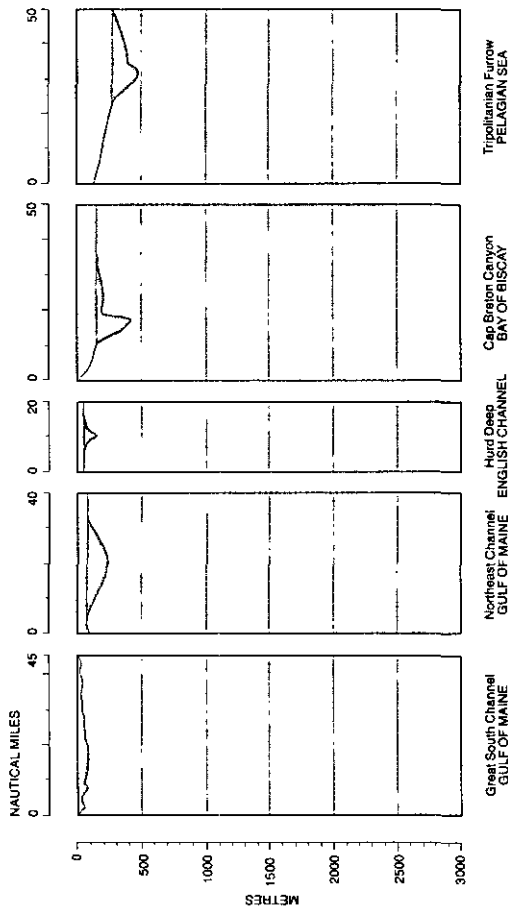


That portion of the water column lying below the shoulders of the submarine depression

Horizontal Scale - 1: 2,841,000

Vertical Scale - 1: 40,600

Vertical Exaggeration - 70 x



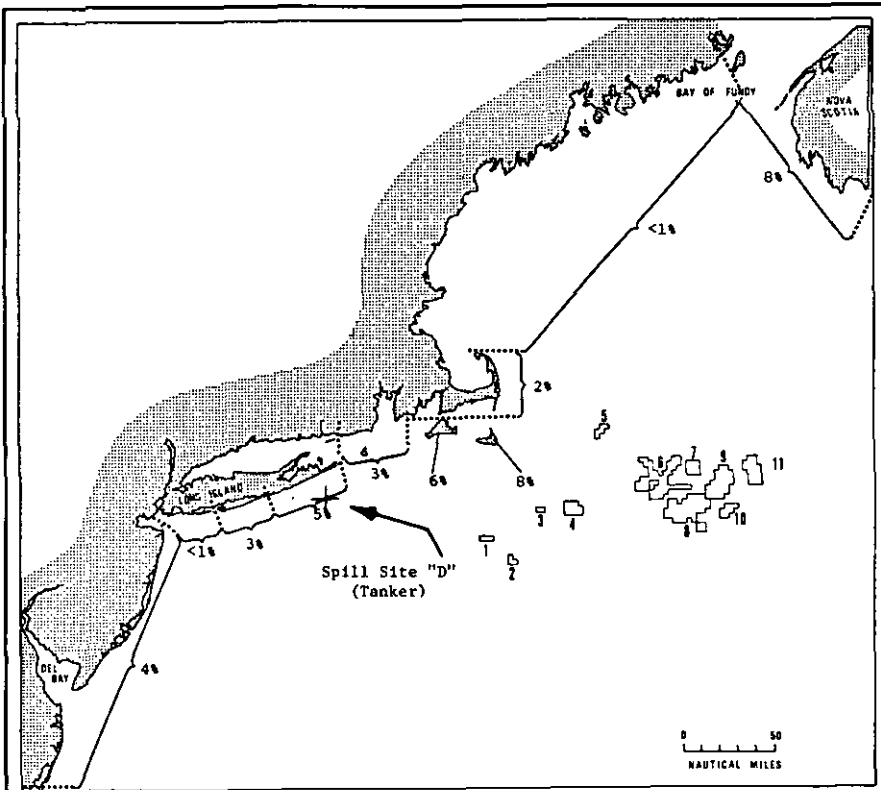


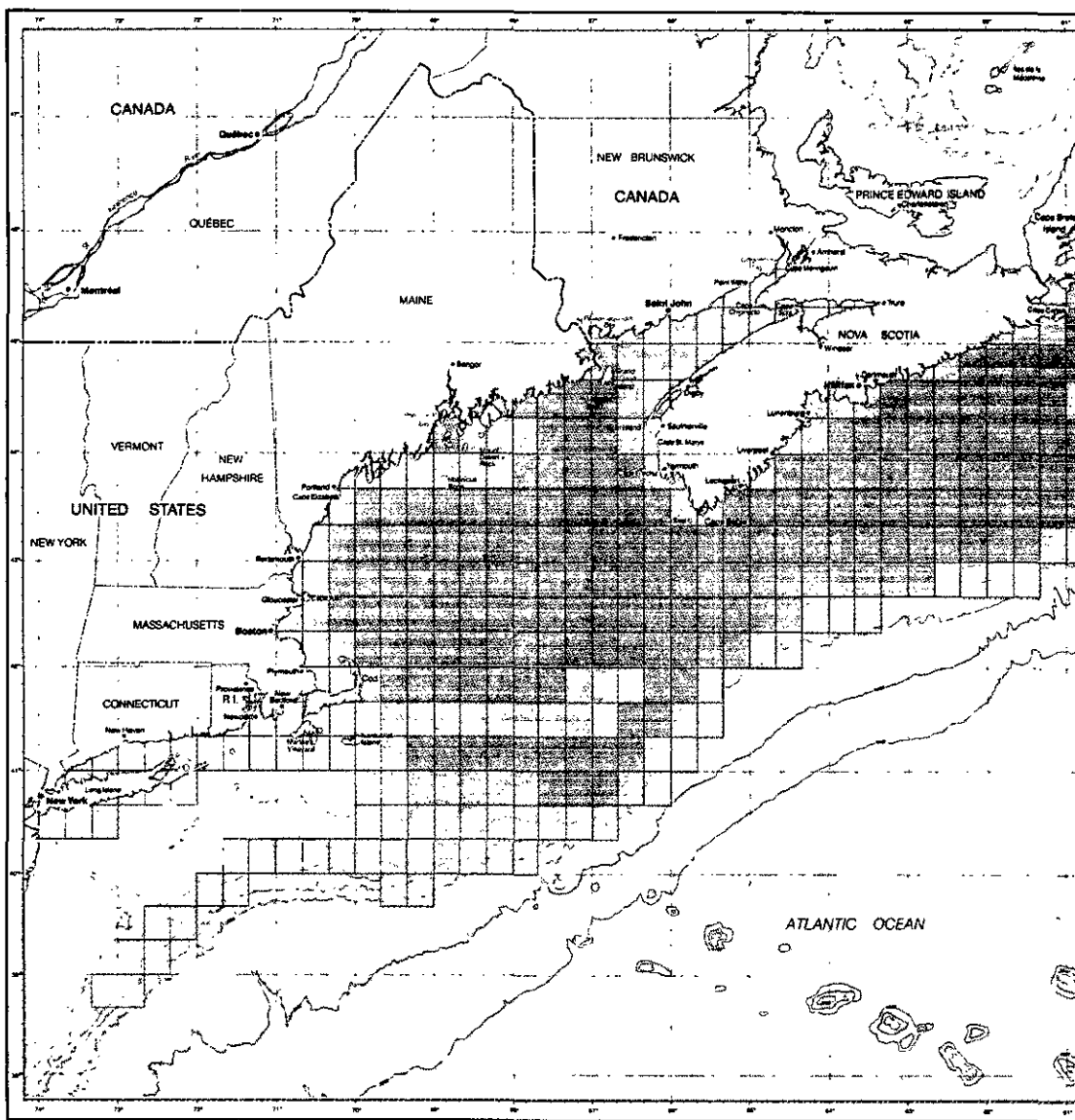
Figure III-14.

Estimated probabilities of at least one oilspill larger than 1,000 bbls occurring and coming ashore at various locations on the North Atlantic coast. Estimates assume leasing of all proposed tracts and tankering of the oil to New York/New Jersey.

**Figure 19**

**Estimated Oil Spill Probabilities from OCS Oil and Gas Lease Sale No. 42**

United States  
 Department of the Interior, Bureau of Land Management:  
*Final Environmental Impact Statement,*  
 Vol. 2. Washington, D.C.: Government Printing Office, 1977



**Figure 20**

**Northern Species**

This Figure illustrates species of fish whose distribution in the Gulf of Maine area generally does not extend southwest of the Great South Channel-Cape Cod-Nantucket Shoals transition zone.

Species whose distribution or range is included are:

- American plaice
- Argentine
- Cod
- Cusk
- Haddock
- Pollock
- Redfish
- White hake



Area of distribution for 6-8 species

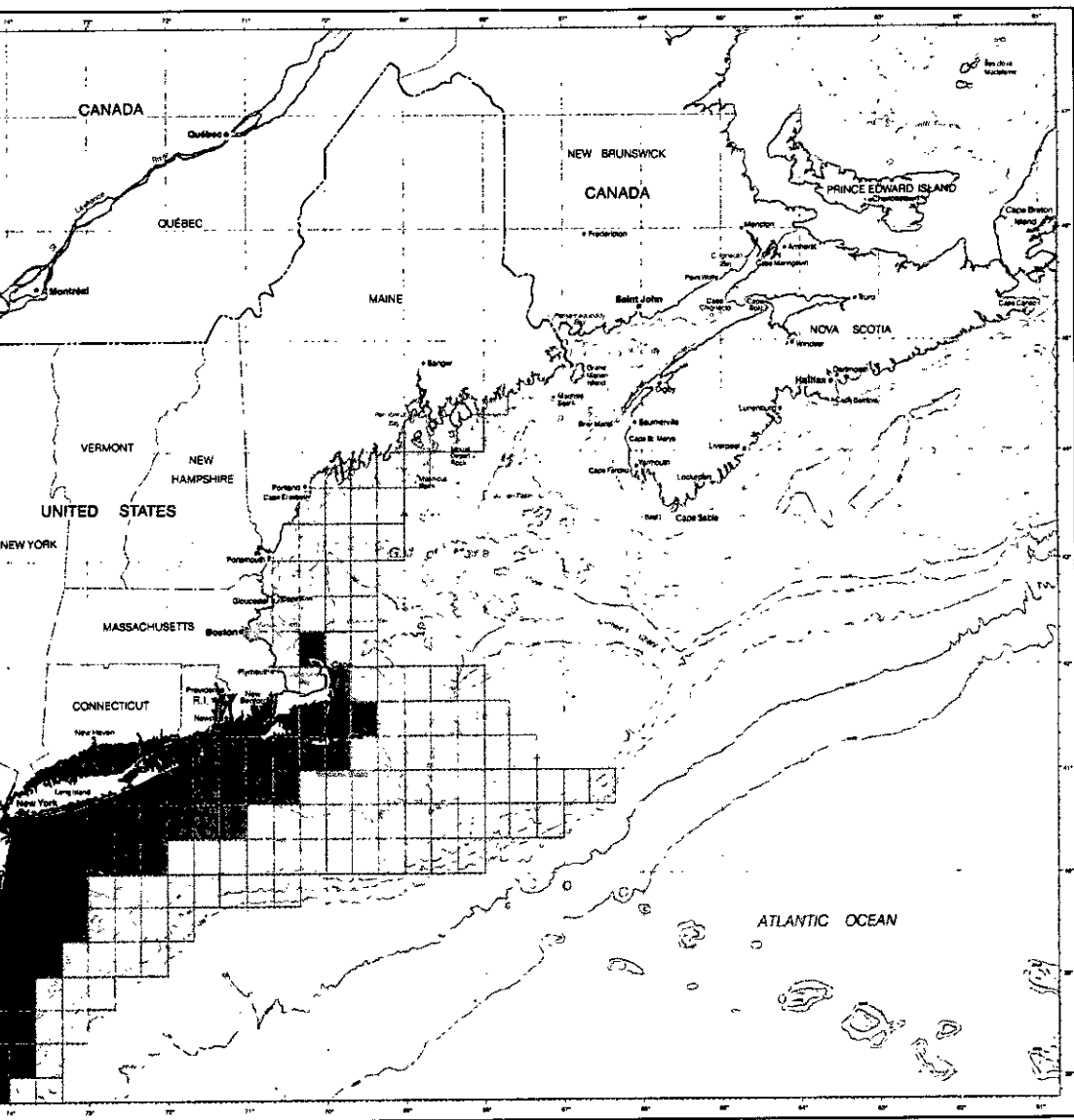


Area of distribution for 4-5 species



Area of distribution for 1-3 species

Depths in Metres  
Projection - Mercator  
Scale - 1 : 4 700 000 at 41° N



**Figure 21**  
**Southern Species**

This Figure illustrates species of fish and invertebrates whose distribution in the Gulf of Maine area generally does not extend northeast of the Great South Channel-Cape Cod-Nantucket Shoals transition zone.

Species whose distribution or range is included are:

- Black sea bass
- Summer flounder
- Butterfish
- Bay scallop
- Bluefish
- Weakfish
- Atlantic menhaden
- Scup



Area of distribution for 6-8 species

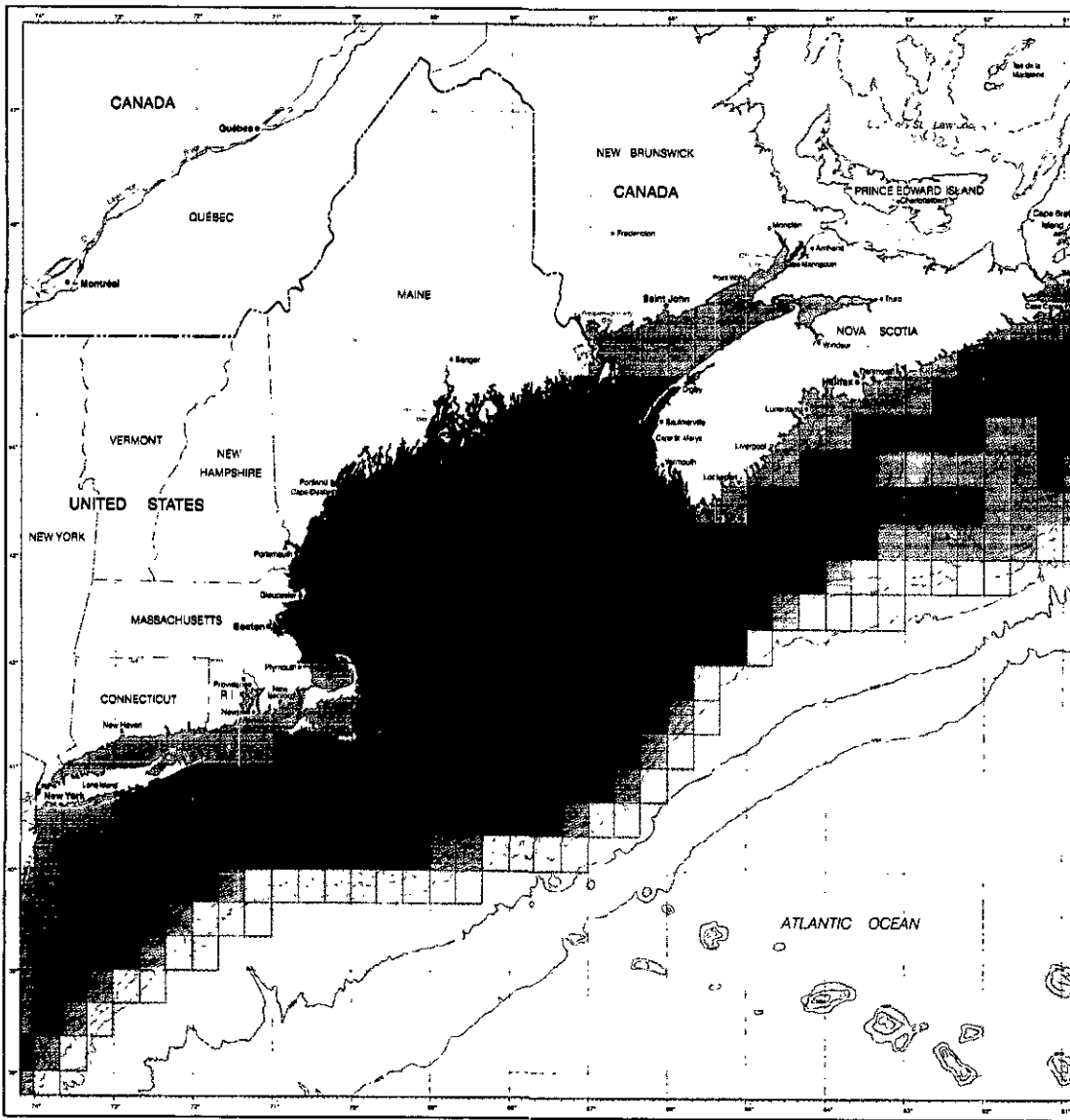


Area of distribution for 4-5 species



Area of distribution for 1-3 species

Depth in Metres  
Projection—Mercator  
Scale—1:4 700 000 at 41° N





**Figure 22**  
**Wide-Ranging Species**


This Figure illustrates species of fish and invertebrates in the Gulf of Maine area whose distribution is wide-ranging.

Species whose distribution range is included are:

- Atlantic herring
- Atlantic mackerel
- Sea scallops
- Illex squid
- Lobster
- Red hake
- Silver hake
- Yellowtail flounder

 Area of distribution for 6-8 species

 Area of distribution for 4-5 species

 Area of distribution for 1-3 species

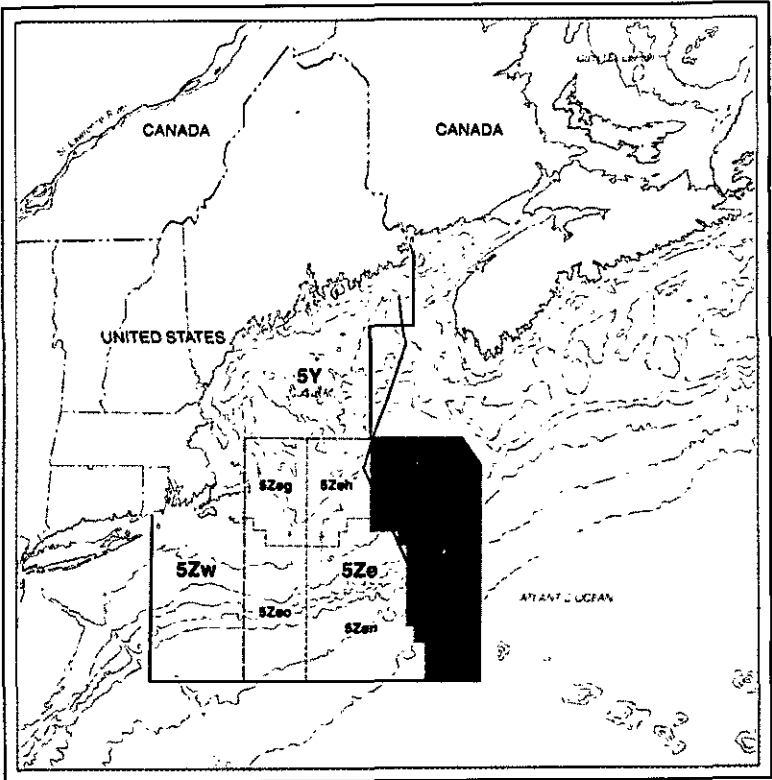
Depth in Metres  
 Projection—Mercator  
 Scale—1 : 4 700 000 at 41° N



Figure 25

Northwest Atlantic Fisheries Organization (NAFO) Subarea 5

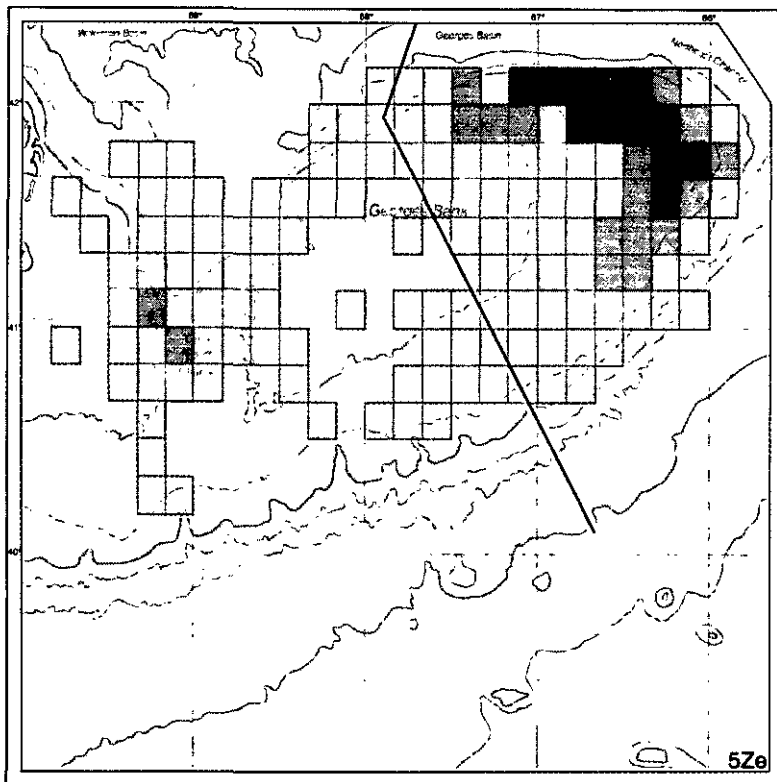
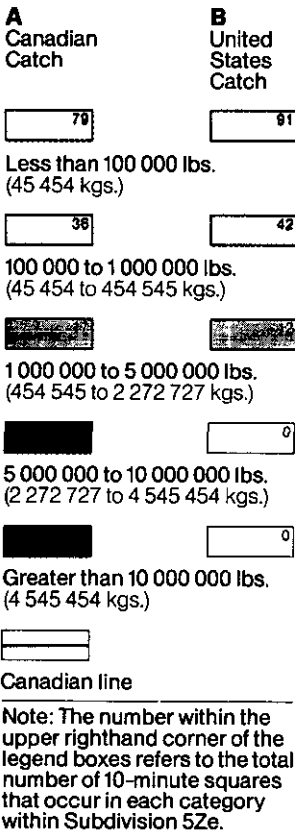
Statistical units 5Zej and 5Zem correspond roughly to the area claimed by Canada within subdivision 5Ze.



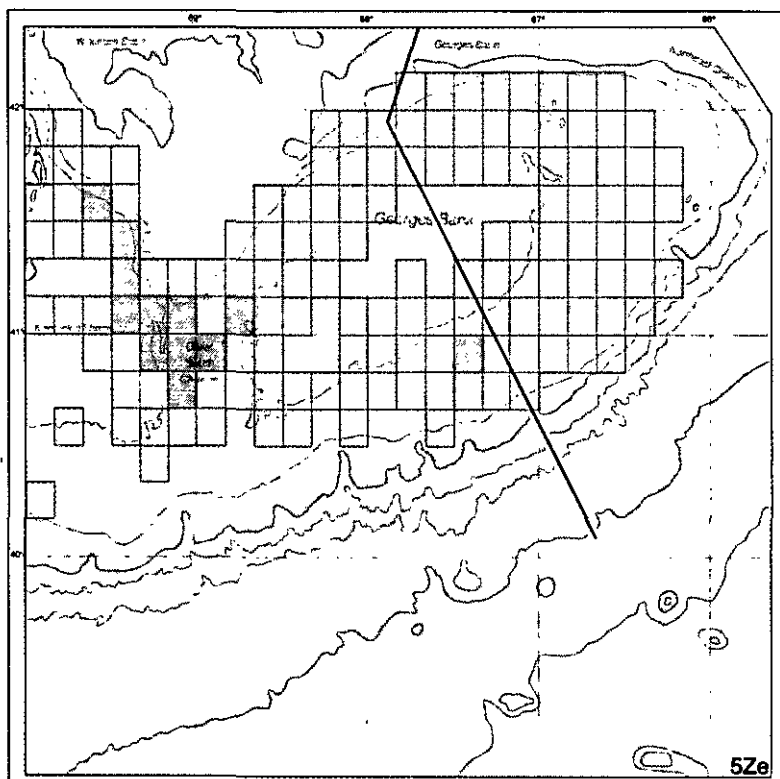
Projection - Mercator  
Scale - 1:10 000 000 at 41° N

**Figure 26**

**Canadian and United States Scallop Catches in Subdivision 5Ze by 10-Minute Squares, 1969-1978**



**A Canadian Catch**



**B United States Catch**

Projection - Mercator  
Scale - 1:3 241 379 at 41° N

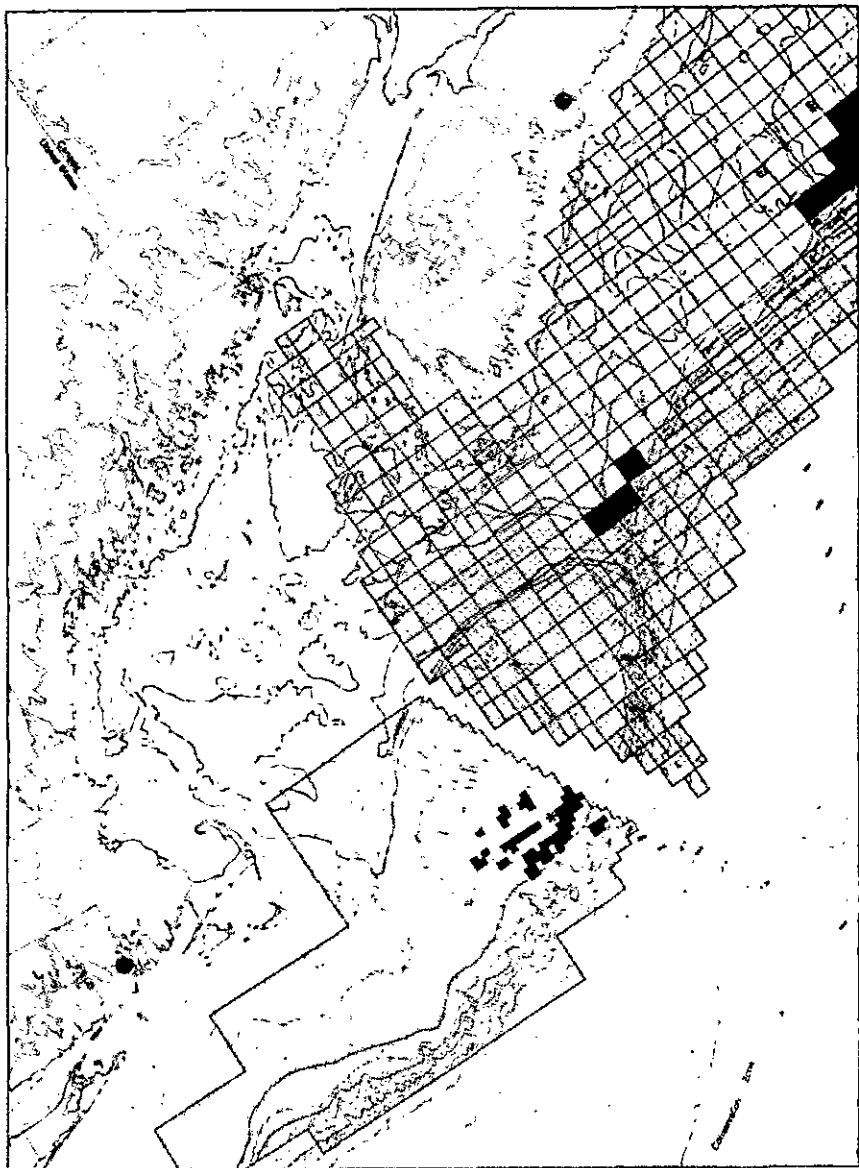
# Eastern United States Coastal and Ocean Zones

Council on Environmental Quality and Office of Coastal Zone Management, NOAA

Figure 31

Official United States Representation of Canadian and United States Oil and Gas Operations in the Gulf of Maine Area, 1980

Produced from: National Oceanic and Atmospheric Administration, United States Department of Commerce, 1980. Eastern United States Coastal and Ocean Zones Data Atlas.



## OCS Oil and Gas

### United States Operations

 Area Proposed for Future Leasing

 Blocks Scheduled to be Leased

 Blocks Currently Leased

 OCS Staging Area


 C.O.S.T. Well

 Industry Drilling Activity

 Found Oil and/or Gas

 Potential Pipeline Corridor

### Canadian Operations

 Areas Formerly under Permit Required to be put up for Public Tender

 Areas under Exploration Permit

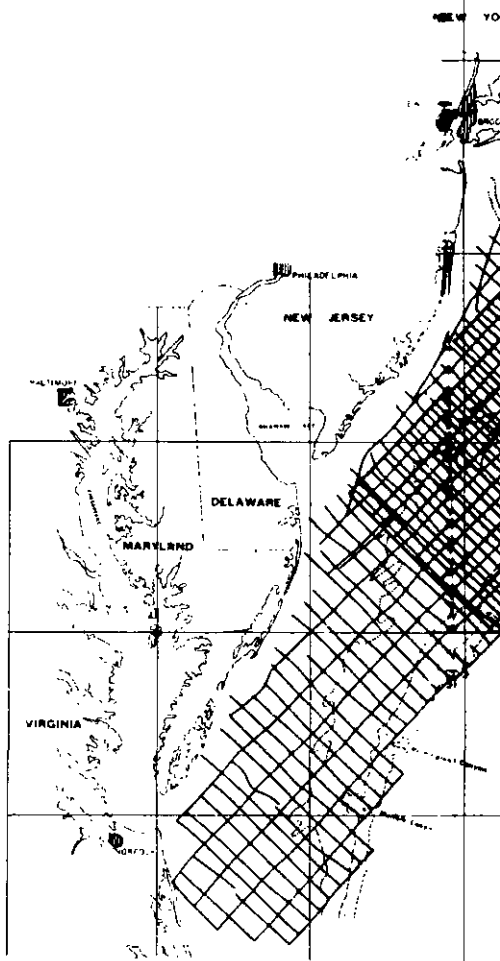
 Lease Application

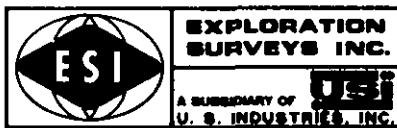
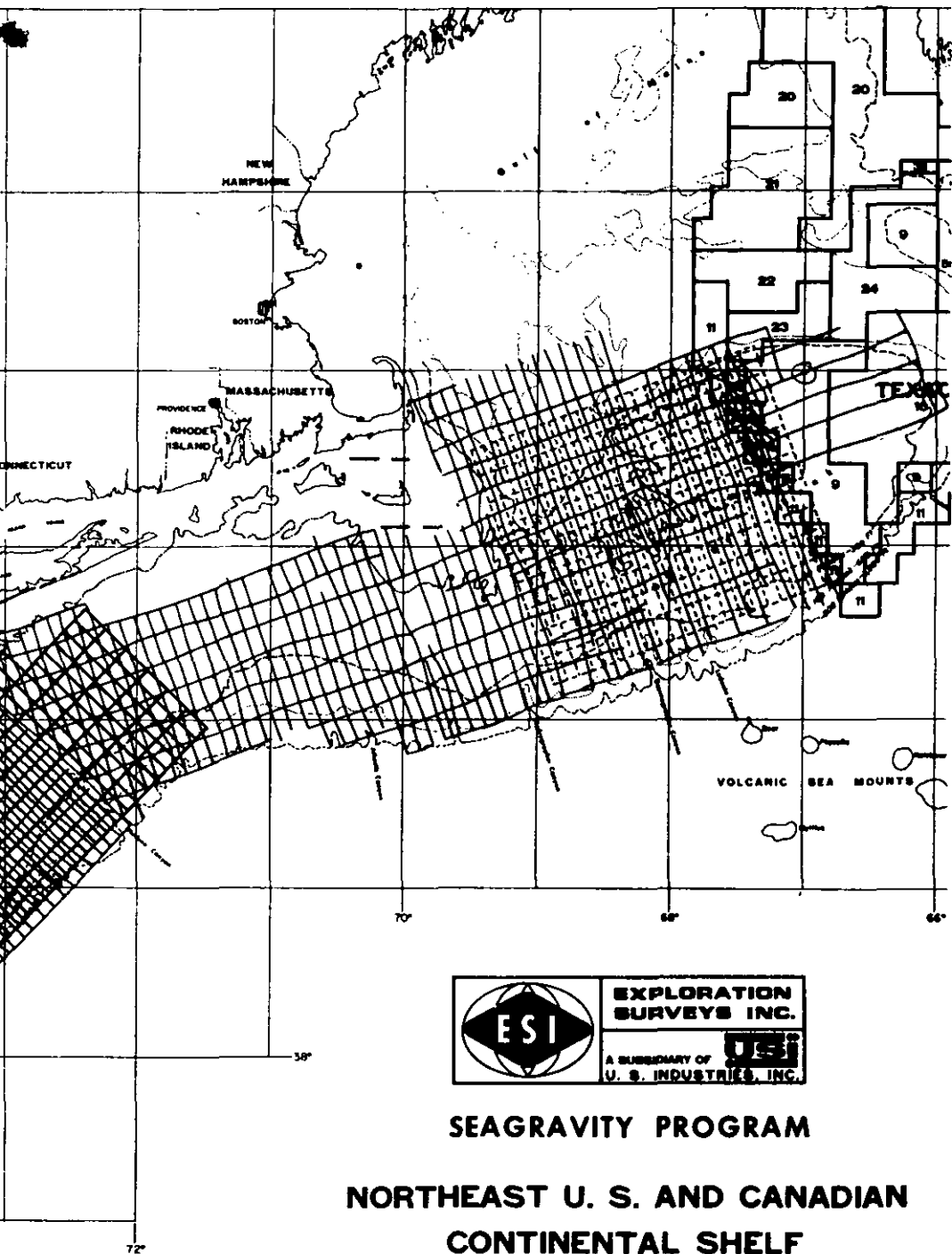


**Figure 32**

**Map Submitted to  
the Canadian  
Government by the  
Company Referred  
to in the Sample  
Permit in Annex 40  
to the United States  
Memorial**

**Note: Virtually all survey  
operations were conducted  
west of the equidistance line.**





**SEAGRAVITY PROGRAM**

**NORTHEAST U. S. AND CANADIAN  
CONTINENTAL SHELF**

COMPLETED WORK \_\_\_\_\_

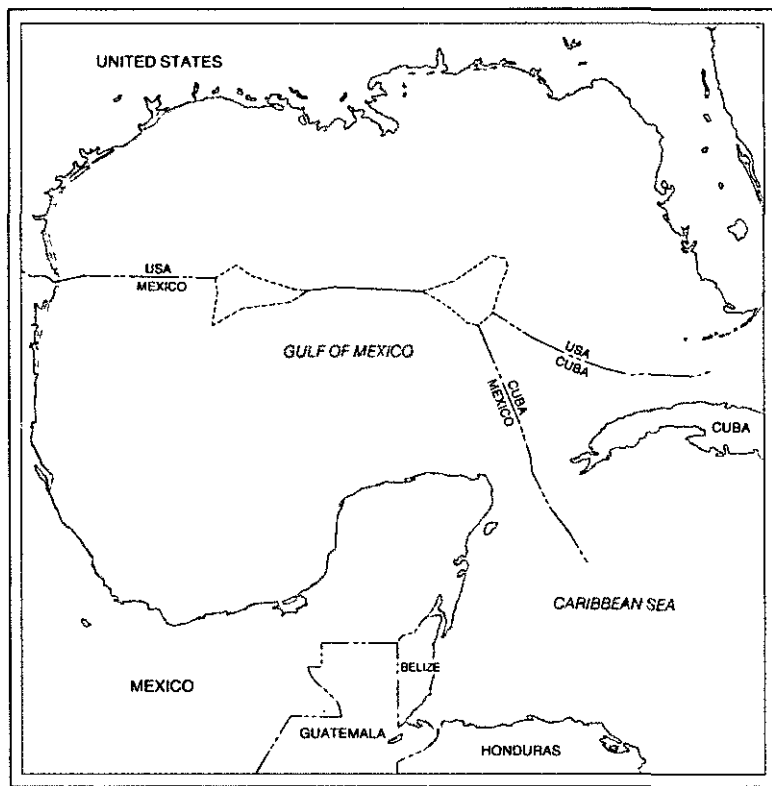
PROPOSED WORK - - - - -



10-3-69

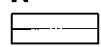
Figure 35

Cooperative  
Operational Zones  
and Maritime  
Boundaries in the  
Gulf of Mexico

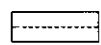


A

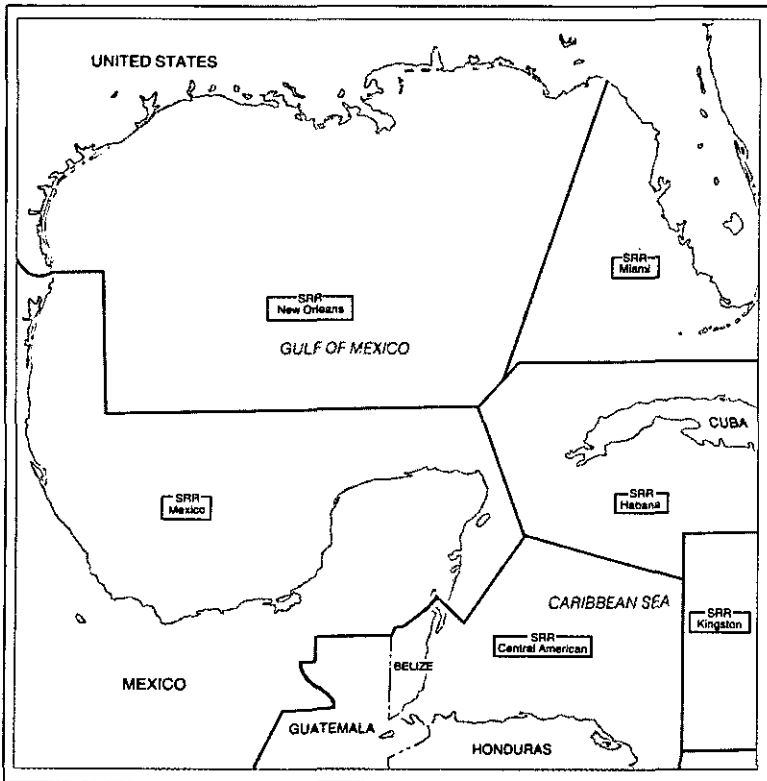
A



Maritime boundaries



Outer limit of the  
200-mile zones



**B**

Projection - Mercator  
 Scale - 1:6 000 000 at 24° N

**B**

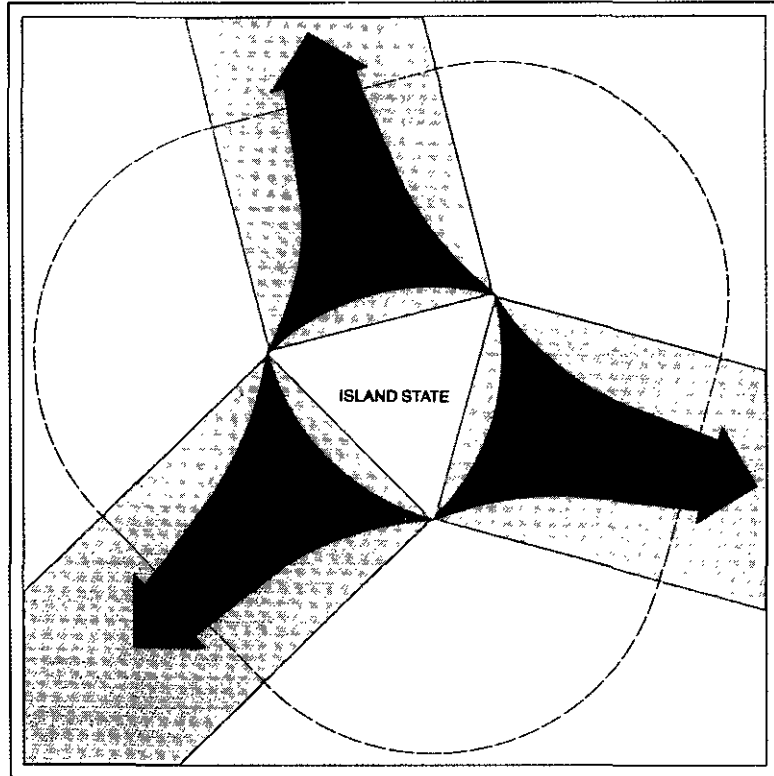
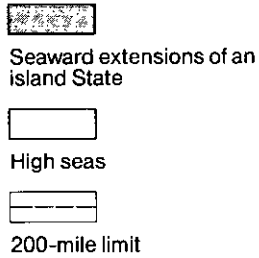


ICAO Search and Rescue  
 Regions

**Figure 41**

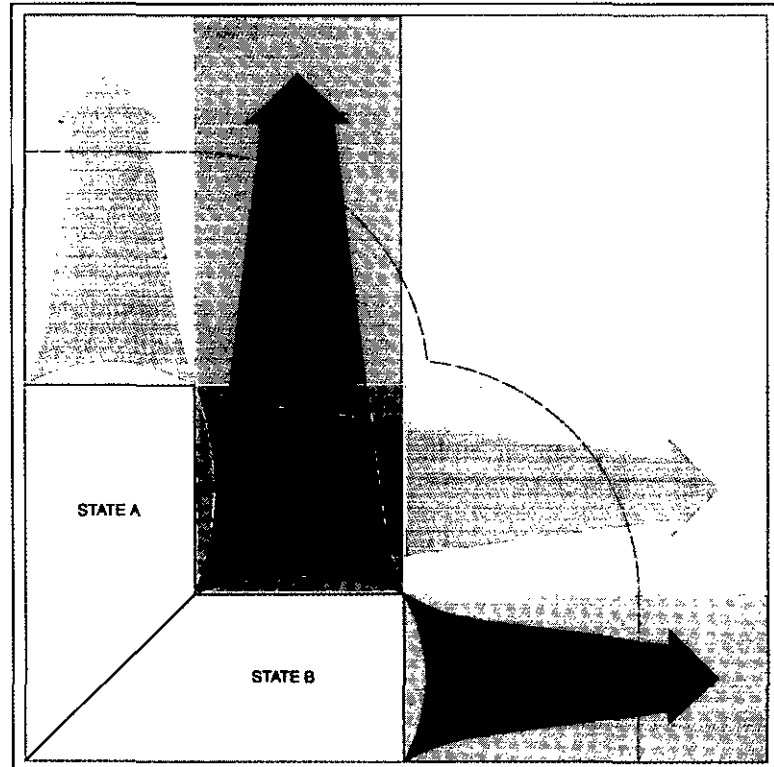
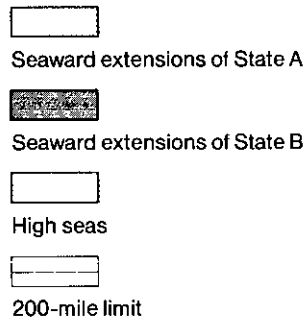
**Seaward Extensions Perpendicular to Coastal Fronts in the Manner Depicted in Figure 31 of the United States Memorial**

**A**  
The attribution of jurisdiction on the basis of a perpendicular projection of coastal fronts would exclude substantial offshore areas from coastal State jurisdiction.



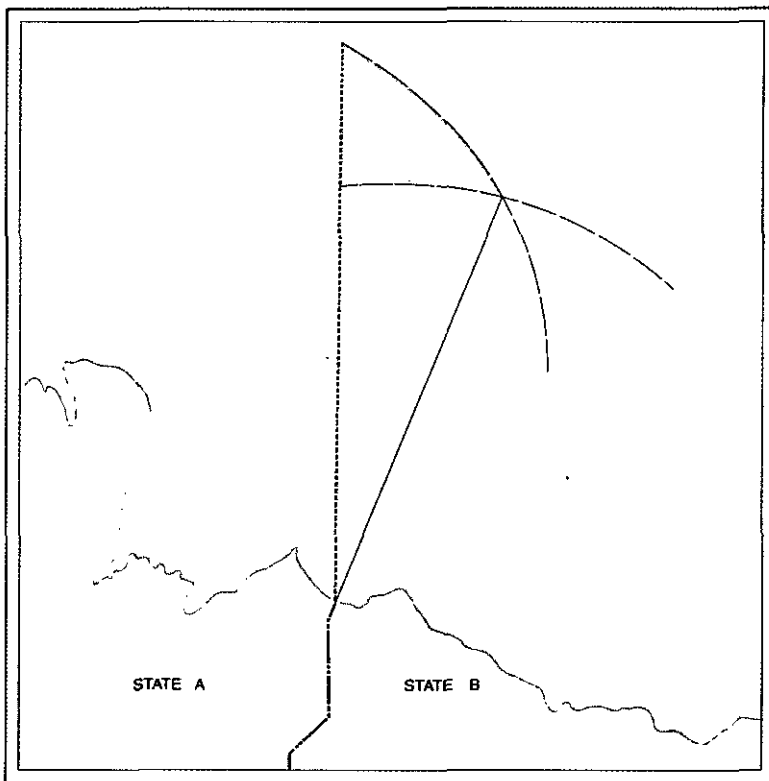
**A**

**B**  
The application of the perpendicular approach may place offshore areas under the jurisdiction of the more distant State.



**B**





**Figure 43**

## The "Grey Area"

Where a single maritime boundary intersects the 200-mile limits of two States at points that are not equidistant from the coast, a "grey area" is created over which neither State can exercise fisheries or exclusive economic zone jurisdiction.



200-mile limits



Equidistance line



Maritime boundary



"Grey area"

Figure 44

The International Boundary Through Territorial Waters  
S.W. Boggs:  
*International Boundaries*. New York: Columbia University Press, 1940

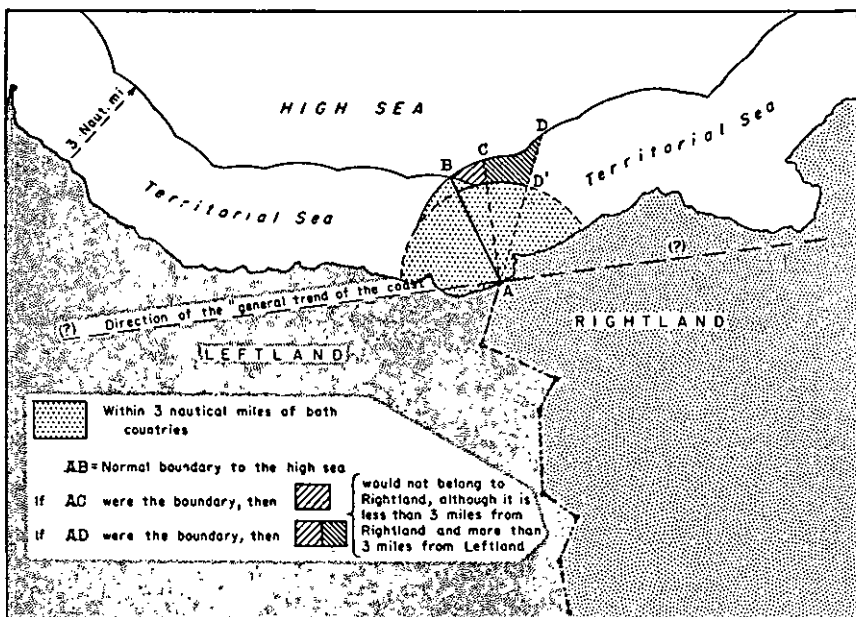


FIG. 25. THE INTERNATIONAL BOUNDARY THROUGH TERRITORIAL WATERS

The line passes through the belt of territorial waters (or "territorial sea") from the coastal terminus of the land boundary to the high sea. This is an example of the simple type, where there are no islands or highly irregular coast line. The most reasonable boundary is the line A-B, the point B being the intersection of the envelopes of arcs of three-mile radius drawn from all points on the shores of the two countries, "Leftland" and "Rightland" respectively.

Two other definitions of the international boundary are sometimes employed: (1) the extension of the last section of the land boundary (in this example, the line AD'), or (2) a line perpendicular to "the general trend of the coast" (along the line AC a distance of three miles). Both of these are objectionable, certain areas (ruled shading) being waters of controvertible jurisdiction.

The textual commentary, at pages 189-190, reads as follows:

On Figure 25 it will be seen that, if the boundary terminates at either C or D<sup>20</sup>, there will be a zone of waters between AC or AD (as the case may be) and the line AB that needlessly constitutes a zone of waters of controvertible jurisdiction. These waters (shaded on the diagram) do not

belong to "Rightland" because they are to the left of the boundary; they should not belong to "Leftland" because they are more than three miles from its shores; and yet they are not part of the high sea because they are less than three miles from "Rightland".

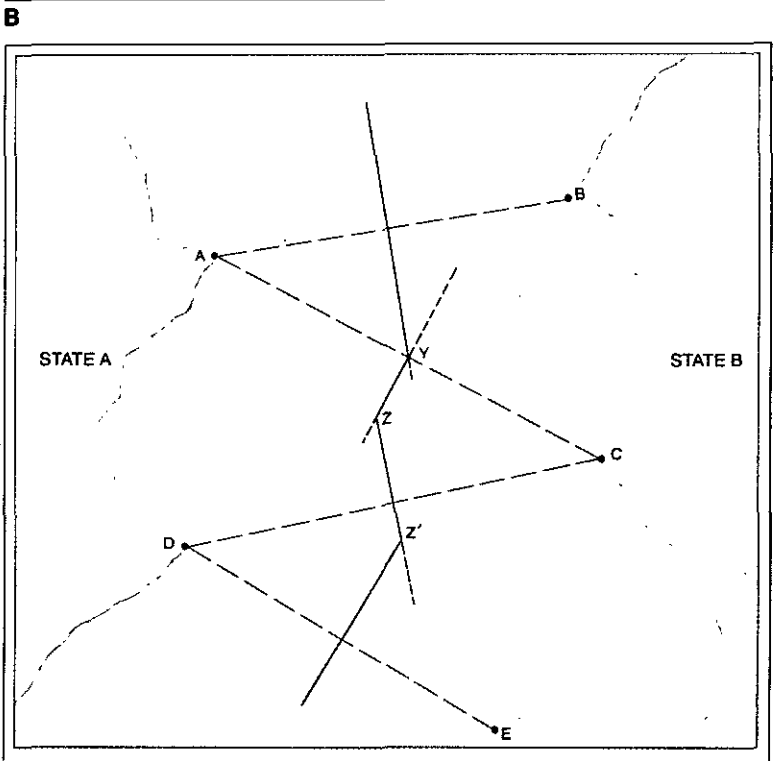
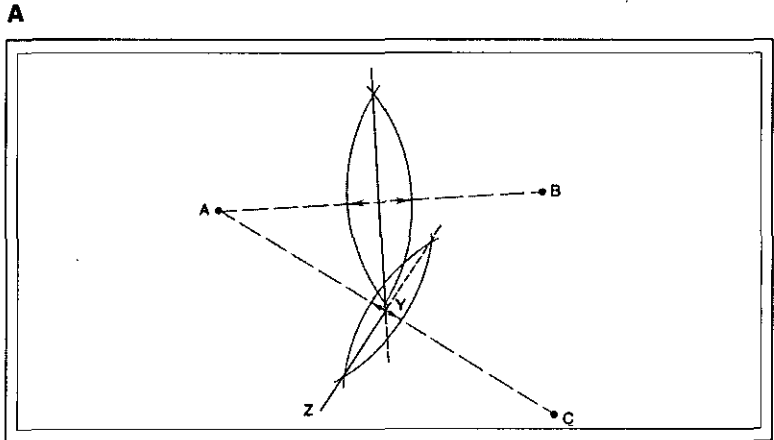
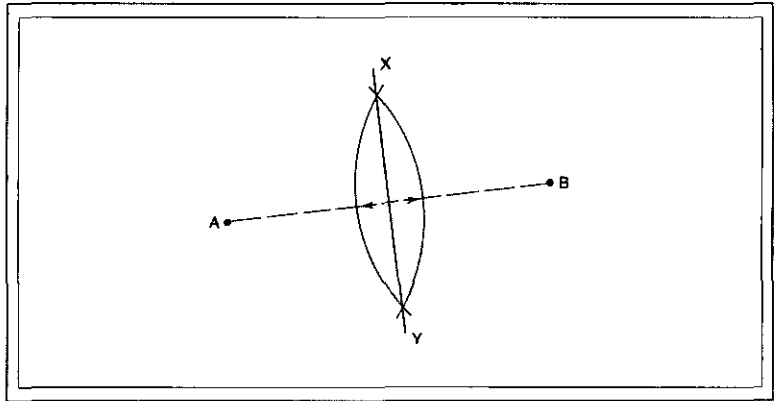
**Figure 45**

**Construction of an Equidistance Line**

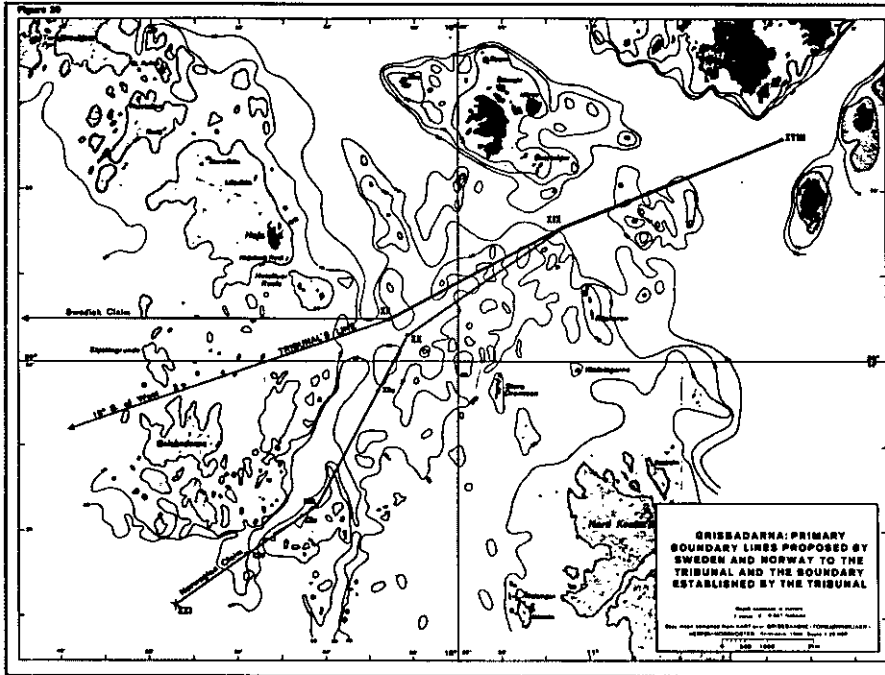
**A**  
The Perpendicular Bisector

**B**  
Change in Direction of the  
Initial Perpendicular Bisector

**C**  
A Series of Perpendicular  
Bisectors



Source: R. D. Hodgson and E. J. Cooper:  
"The Technical Delimitation of a Modern  
Equidistant Boundary." *Ocean Develop-  
ment and International Law Journal*, Vol. 3,  
No. 4. Crane, Russak and Co., Inc., 1976.  
pp. 361-388.



**A**

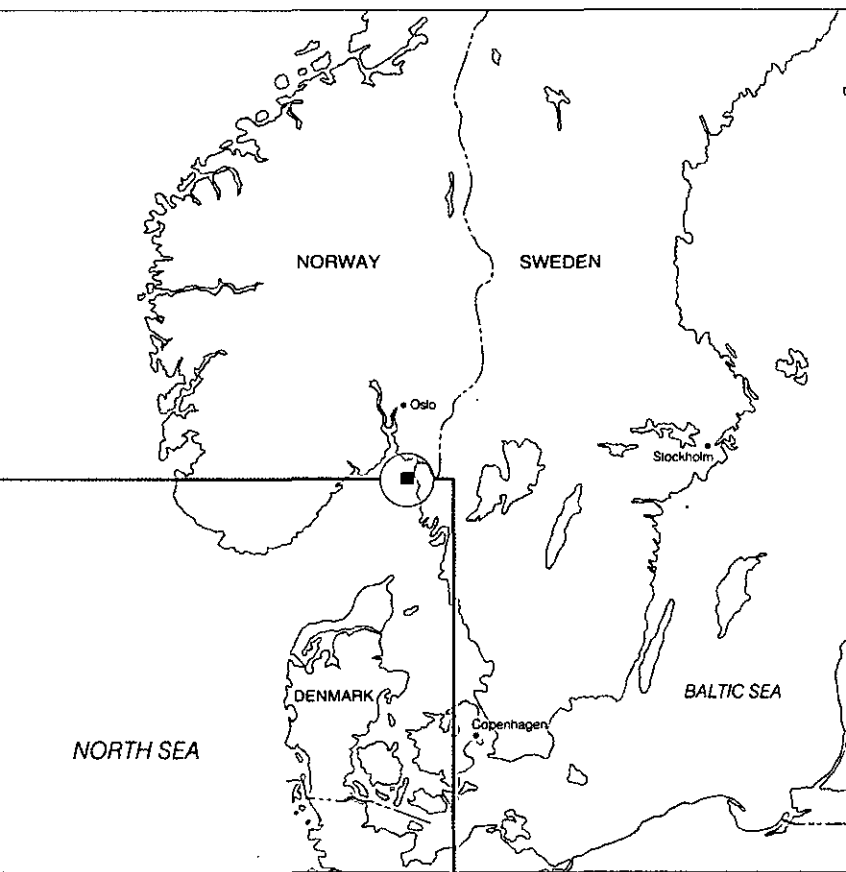
**Figure 46**

**Comparison of the  
Grisbadarna Area  
with the Gulf of  
Maine Area**

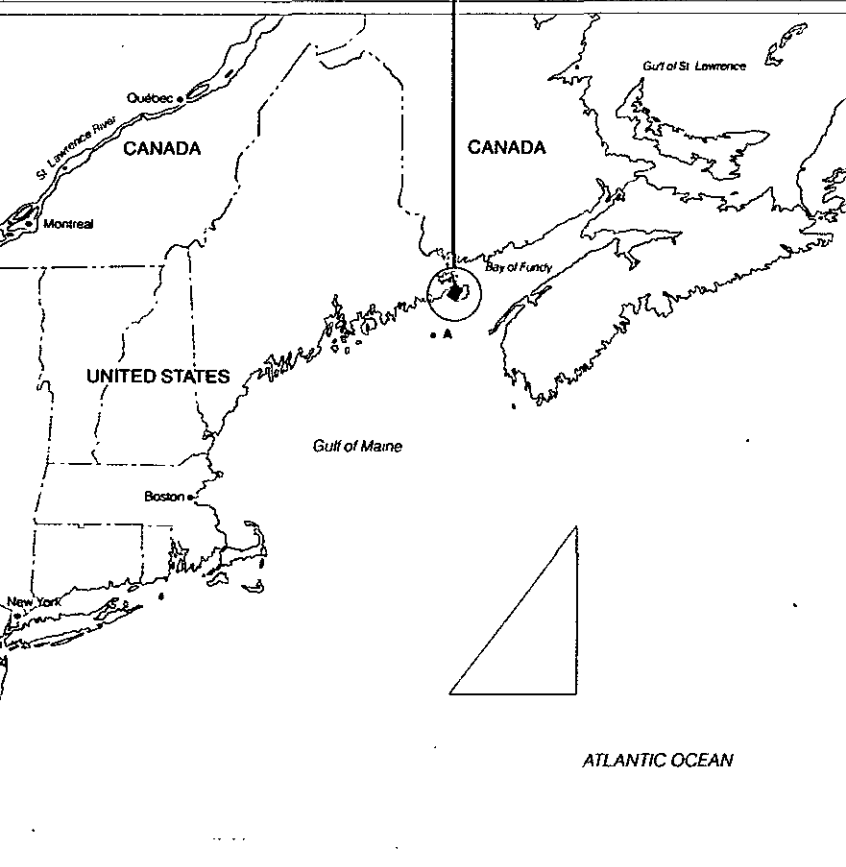
**A**  
Map of the Grisbadarna area  
shown in Figure 20, United  
States Memorial, at a scale of  
1 : 65 000; reproduced here at  
a scale of 1 : 171 052

**B**  
The United States  
Grisbadarna map inserted in a  
map showing the wider  
geographical setting of the  
area; scale 1 : 10 000 000

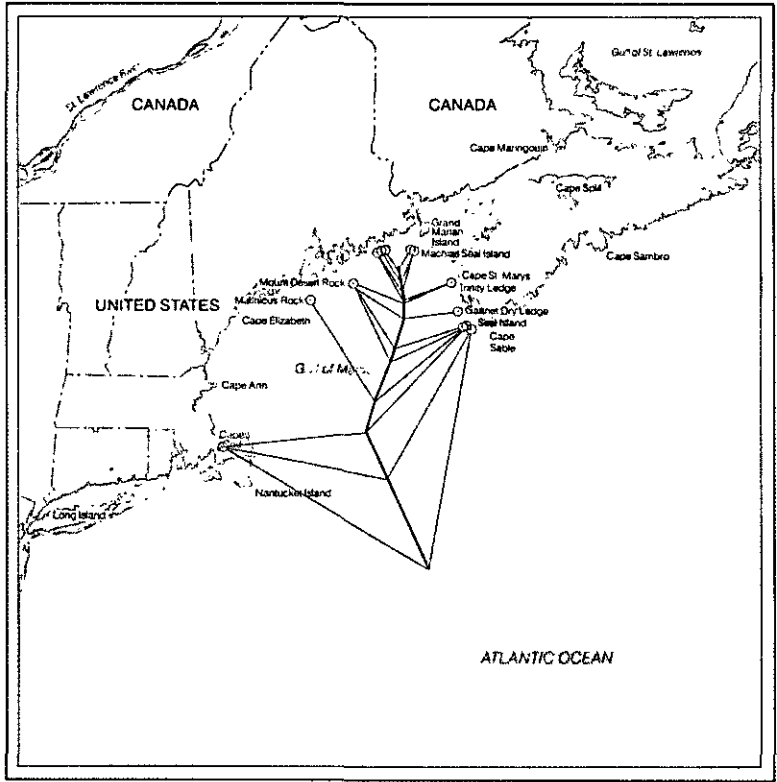
**C**  
The United States  
Grisbadarna map inserted in a  
map of the Gulf of Maine area;  
scale 1 : 10 000 000



**B**



**C**



A

**Figure 50**  
**The Canadian Line**  
**Reflects the General**  
**Configuration of the**  
**Coasts**

This Figure compares the Canadian line with a hypothetical equidistance line drawn from straight lines representing the general direction of the coasts.

**A**  
**Construction of the Canadian**  
**line**



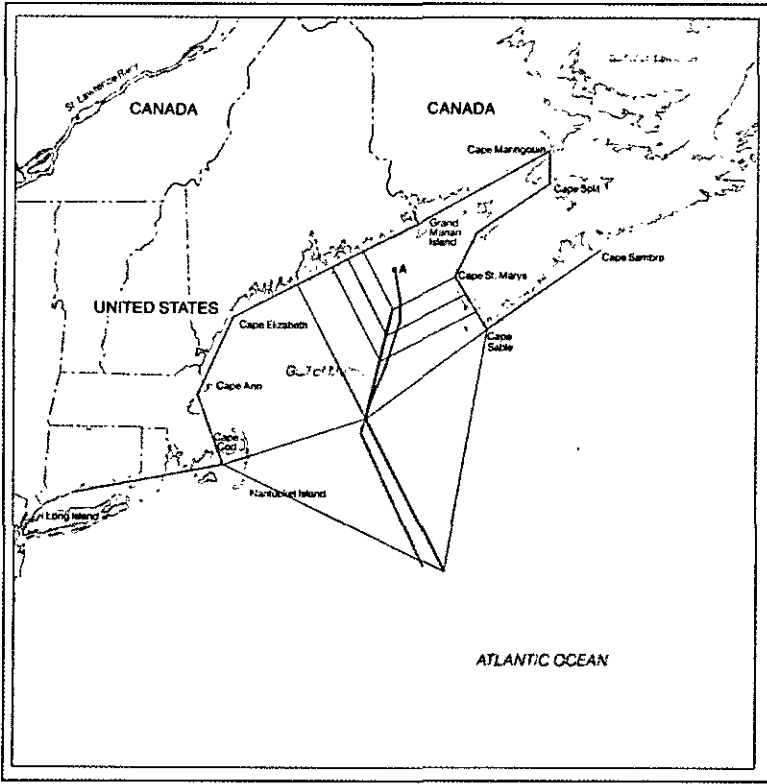
Base points used to construct the Canadian line



Equidistance construction lines



Canadian line



**B**

Projection - Mercator  
Scale - 1 : 10 000 000 at 41° N

**B**  
Construction of the hypothetical equidistance line



Straight lines representing the general direction of the coasts



Equidistance construction lines



Equidistance line drawn from straight lines representing the general direction of the coasts



Canadian line

Figure 51

## Proportionality Test A



Lines utilized in measuring the length of the coasts according to their general direction



Perpendicular to the mean general direction (067°) of the Atlantic-facing coasts

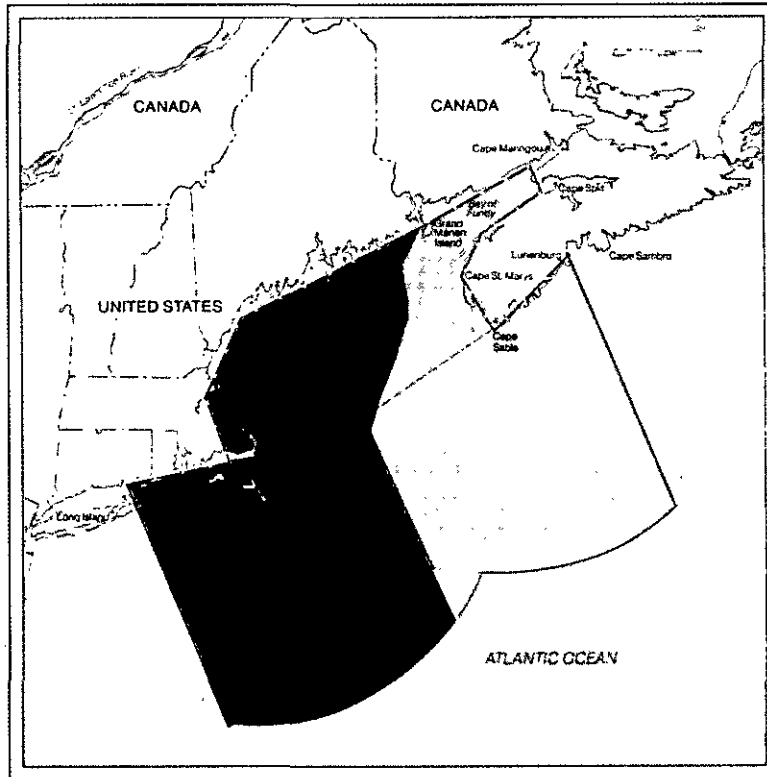


Seaward limits of the 200-mile zones



Hypothetical Gulf of Maine closing line

Projection - Mercator  
Scale - 1:10 000 000 at 41° N

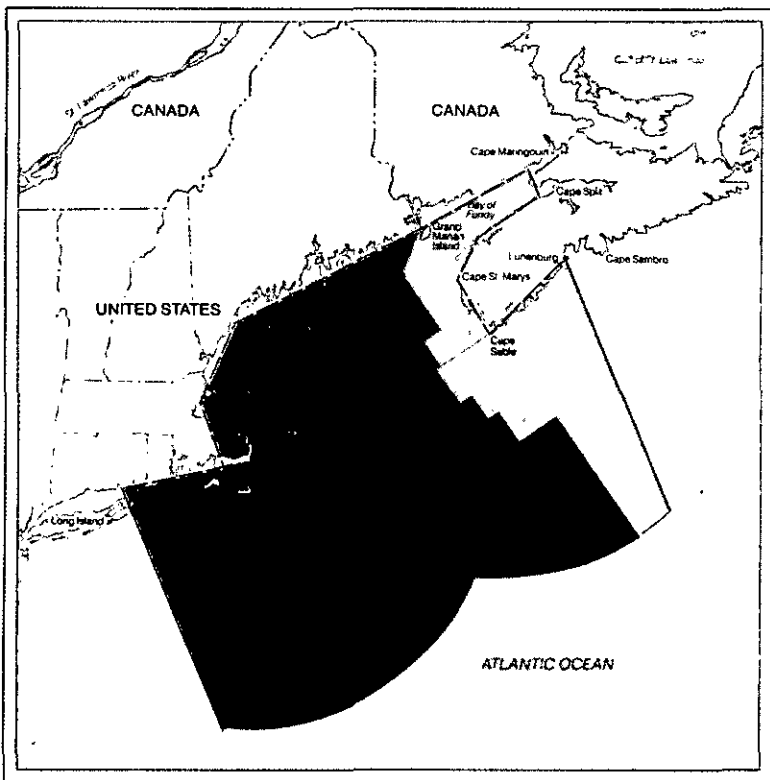


A Sea areas divided by the Canadian line

	1 The inner area	2 The outer area	3 The Gulf of Maine area (as a whole)
<b>Coastline lengths:</b>			
Canada	258 NM	83 NM	341 NM
United States	286 NM	83 NM	369 NM
<b>COASTLINE RATIOS</b>			
Canada : United States	47 : 53	50 : 50	48 : 52
<b>Sea areas divided by the Canadian line:</b>			
Total sea area	28 506 SNM	81 772 SNM	110 278 SNM
Canada	8 704 SNM	37 917 SNM	46 621 SNM
United States	19 802 SNM	43 855 SNM	63 657 SNM
<b>AREAL RATIOS</b>			
Canada : United States	30 : 70	46 : 54	42 : 58
<b>Sea areas divided by the United States line:</b>			
Total sea area	28 506 SNM	82 543 SNM	111 049 SNM
Canada	6 586 SNM	14 846 SNM	21 432 SNM
United States	21 920 SNM	67 697 SNM	89 617 SNM
<b>AREAL RATIOS</b>			
Canada : United States	23 : 77	18 : 82	19 : 81

Note: SNM represents Square Nautical Miles





B Sea areas divided by the United States line

**Figure 52**

**Proportionality Test B**



Lines utilized in measuring the length of the coasts according to their general direction



Meridians and parallels delineating sea areas in which the proportionality test is applied



Triangle defined in Article II of the Special Agreement

Coastline lengths:

Canada 287 NM  
United States 288 NM

COASTLINE RATIO

Canada: United States 50 : 50

Total sea area 58 974 SNM

**A**

Sea Areas Divided by the Canadian Line

Canada 23 067 SNM  
United States 35 907 SNM

AREAL RATIO

Canada : United States 39 : 61

**B**

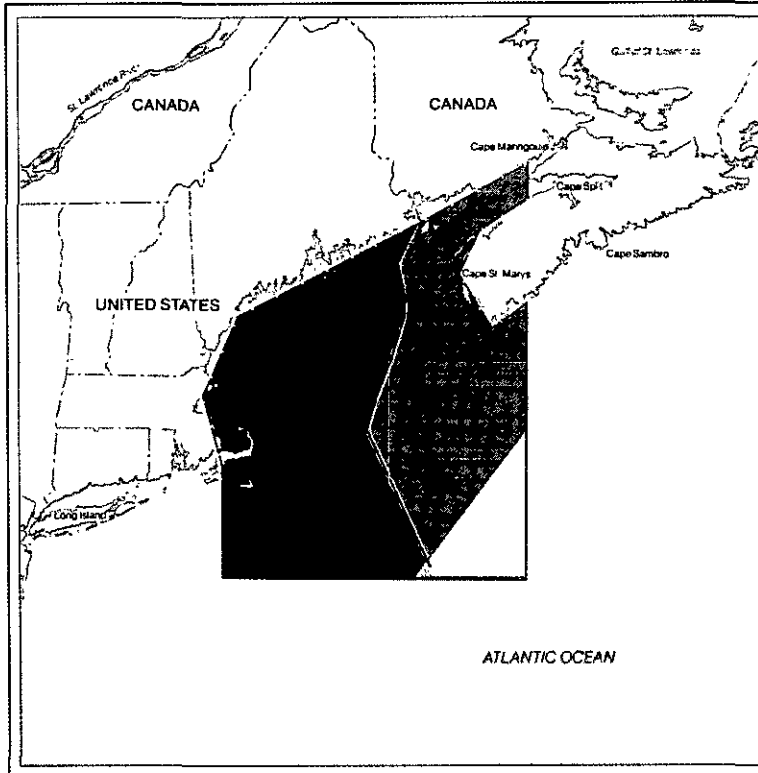
Sea Areas Divided by the United States Line

Canada 10 368 SNM  
United States 48 606 SNM

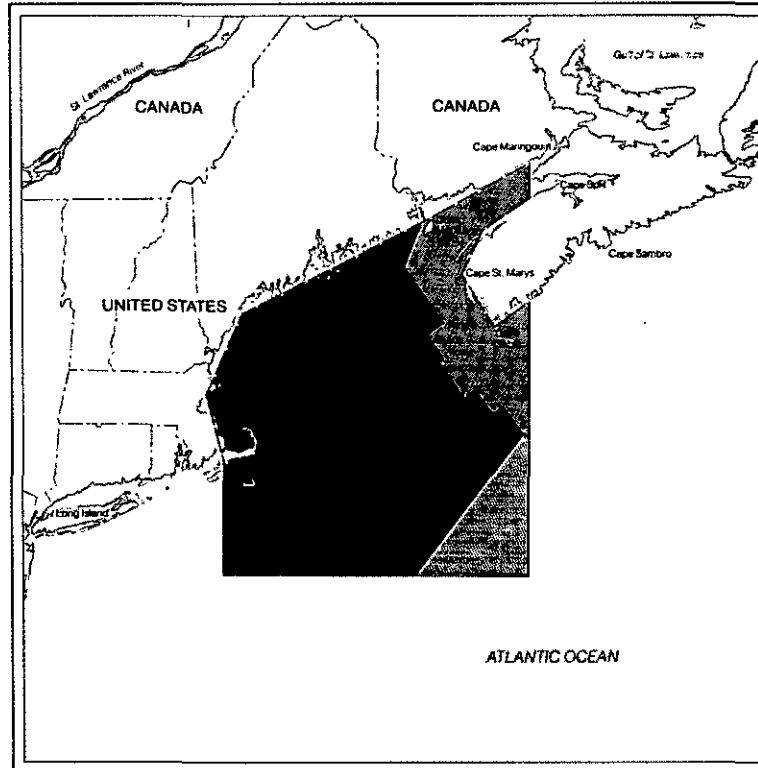
AREAL RATIO

Canada : United States 18 : 82

Note: The test in this Figure is applied to the area bounded to the southeast by the hypotenuse of the triangle. See Part IV, Chapter III, footnote 12 of this Counter-Memorial for the ratios produced if the triangle is included within the test area.

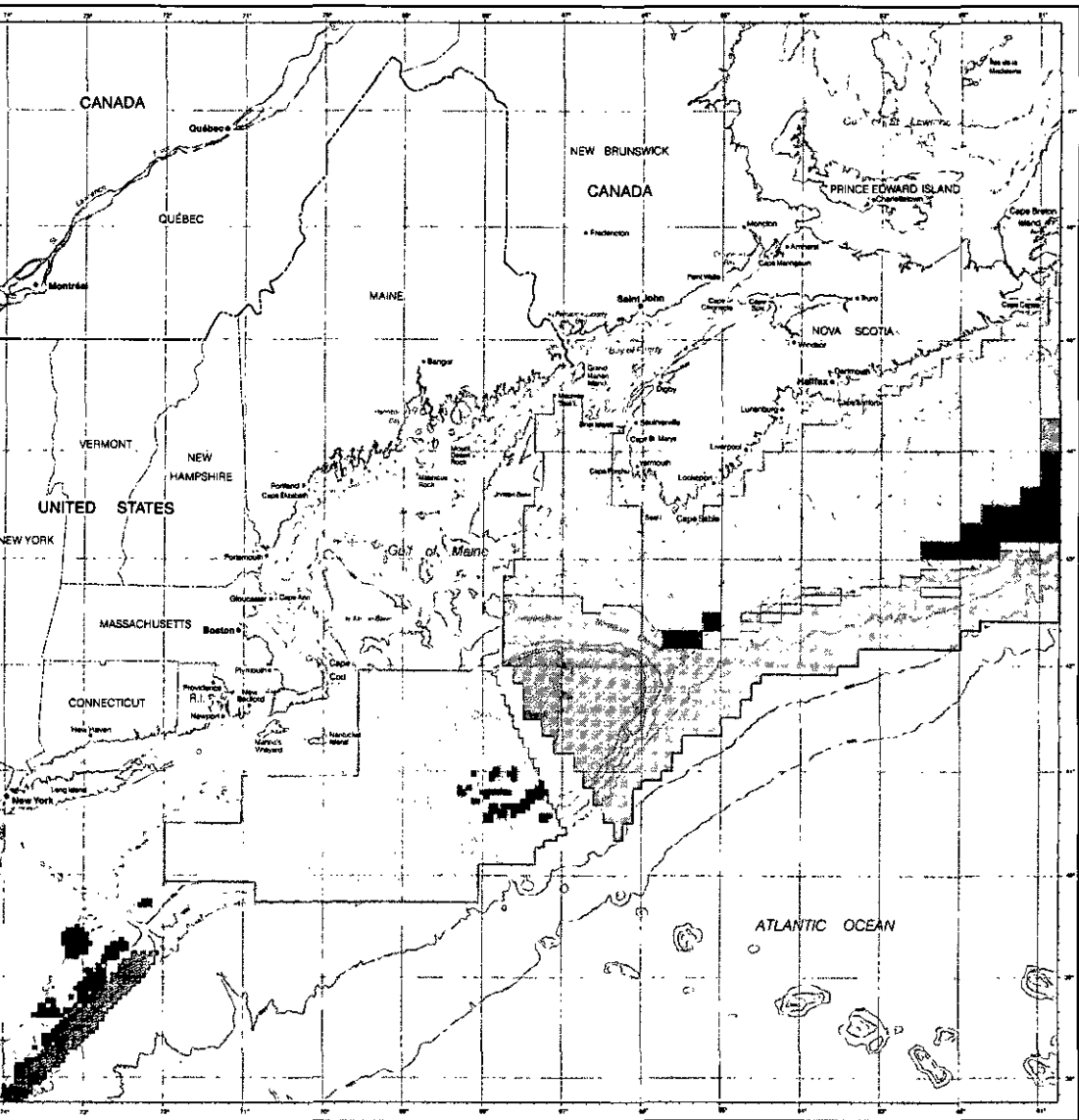


**A**



**B**

Projection - Mercator  
Scale - 1:10 000 000 at 41° N



**Figure 53**  
**Offshore Oil and Gas Exploratory Permits and Leases in the Gulf of Maine Area**

-  Canadian lease applications
-  Canadian permits
-  Areas formerly under permit (Canada) surrendered to the Canadian Government to be put up for public tender
-  United States blocks currently leased
-  United States areas scheduled to be leased
-  United States area proposed for future leasing

Source: National Oceanic and Atmospheric Administration, United States Department of Commerce, 1980. *Eastern United States Coastal and Ocean Zones Data Atlas.*

Depths in Metres  
 Projection - Mercator  
 Scale - 1 : 4 700 000 at 41° N

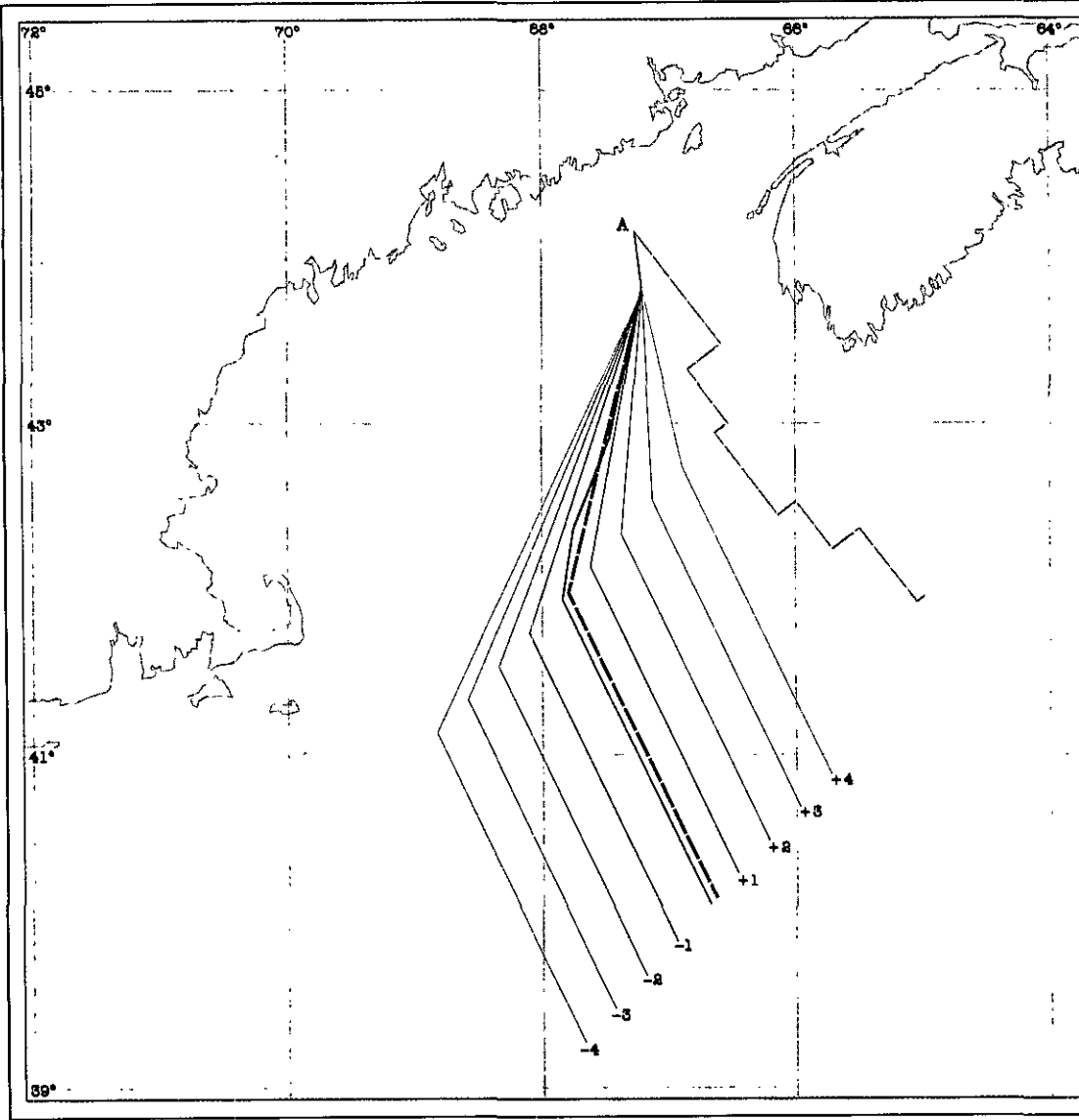




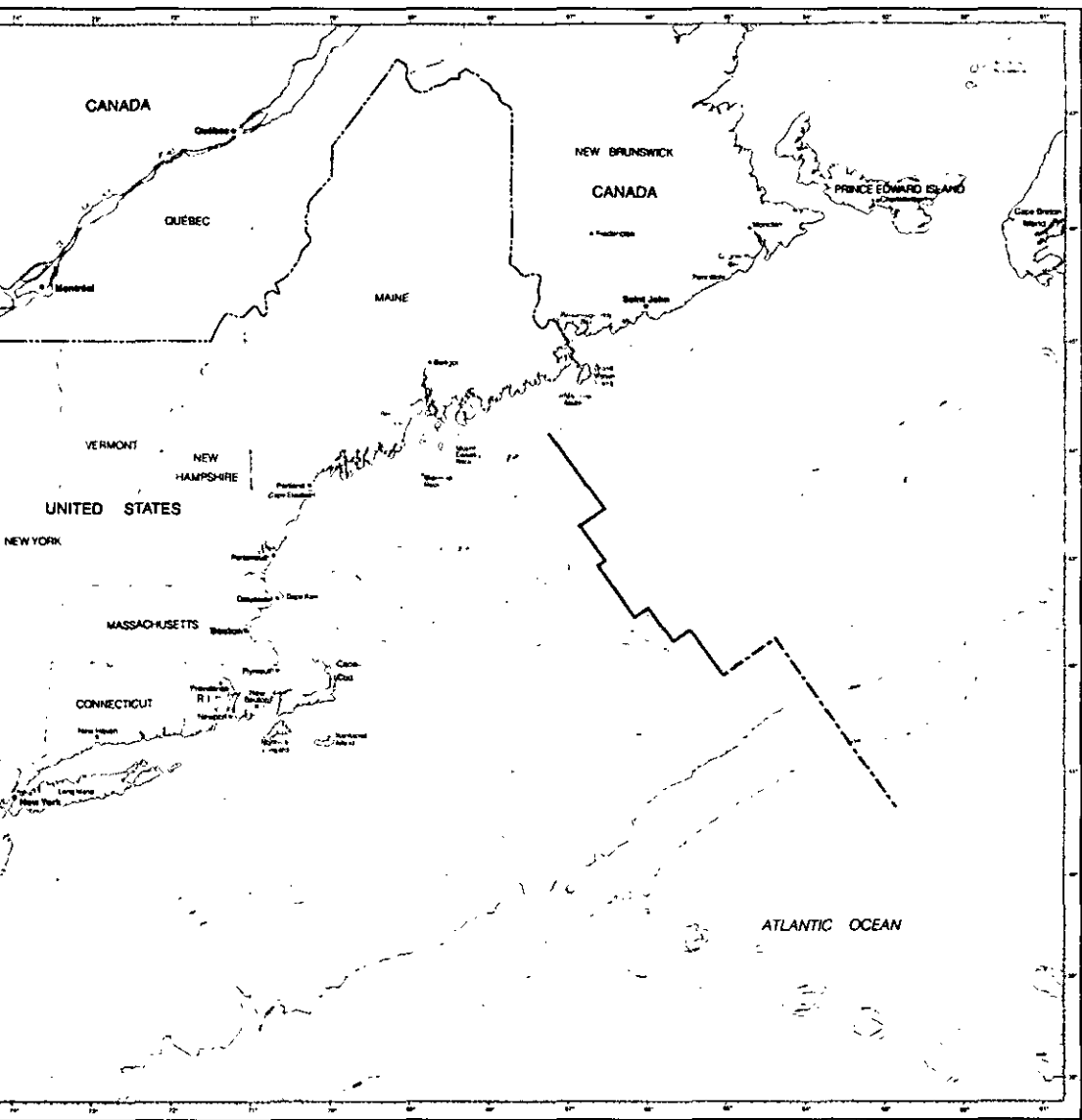


Figure 54

**Division of Georges Bank Indicated by Computer Analysis of the Resource Allocations Established Under the 1979 Agreement on East Coast Fishery Resources**

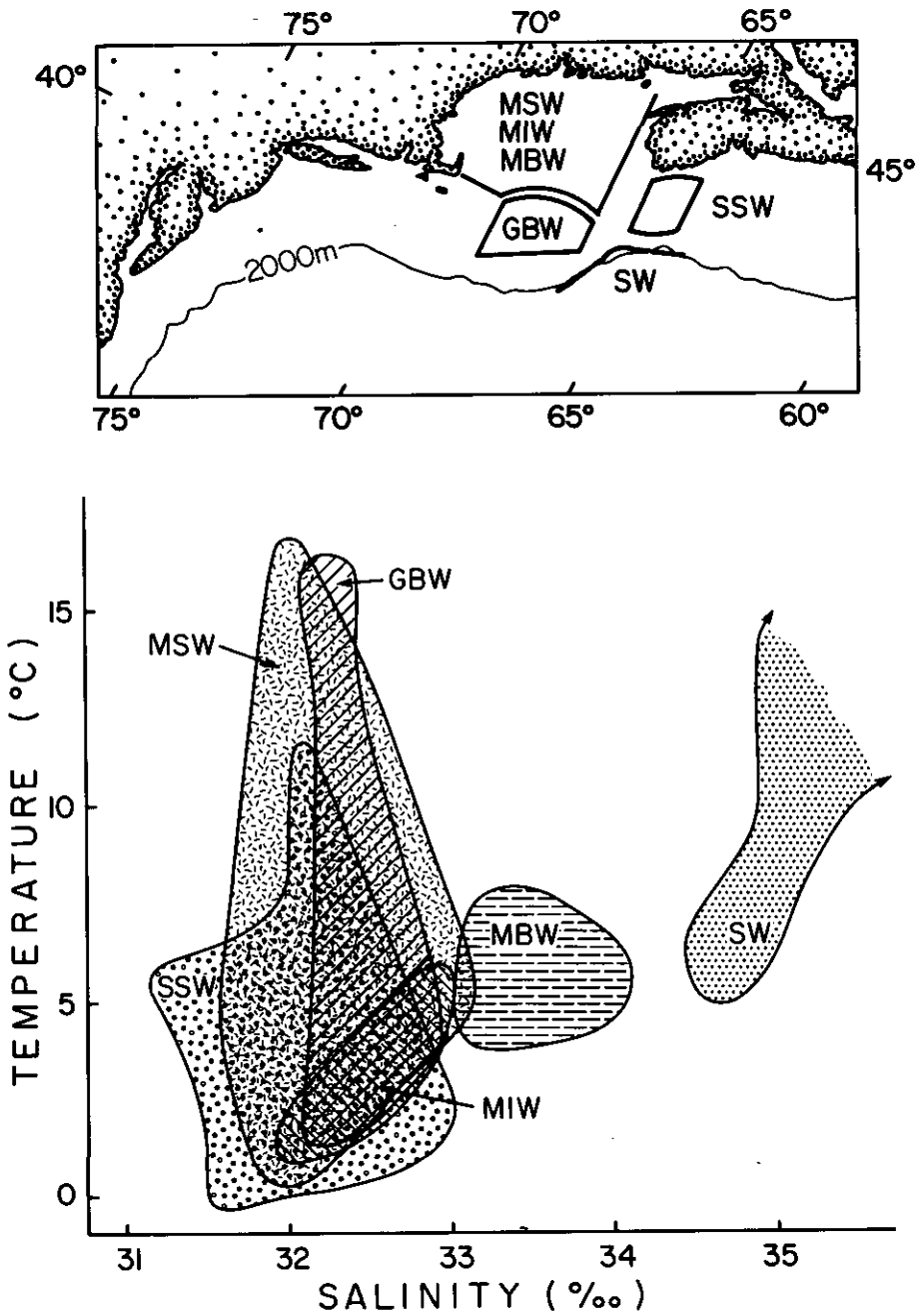
-  Canadian line
-  Aggregate allocations line
-  United States line
-  Trial analysis lines

Projection—Mercator  
Scale—1:3 000 000 at 41° N



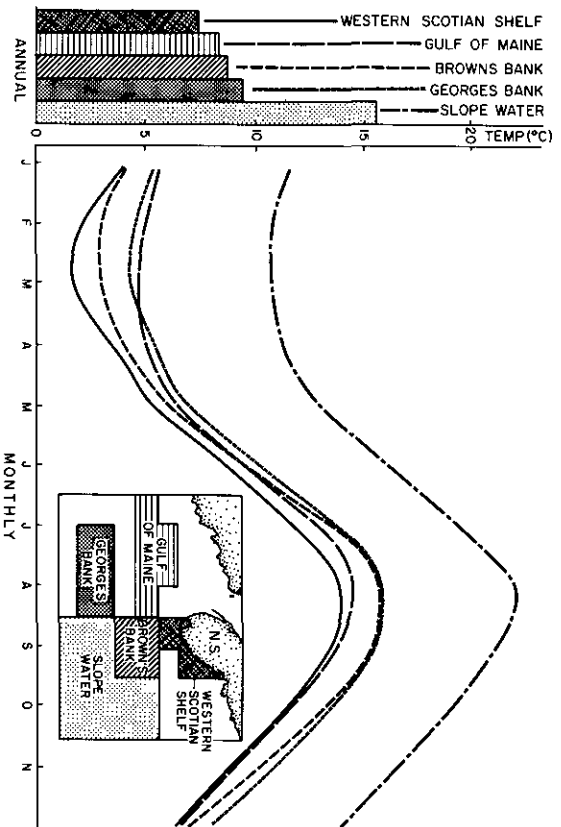
**Figure 55**  
**The United States**  
**Boundary Proposal**  
**Denies the Exis-**  
**tence of Nova**  
**Scotia**

Depth in Metres  
 Projection - Mercator  
 Scale - 1:4 700 000 at 41°N



**Figure 13:** Temperature-salinity relationship for water masses in the Gulf of Maine area: SSW: Scotian Shelf water; SW: slope water; GBW: Georges Bank water; MSW: Maine surface water; MIW: Maine intermediate water; and MBW: marine bottom water (which is confined to the deeper basins of the Gulf of Maine).

Source: Redrawn from T. S. Hopkins and N. Garfield: "Gulf of Maine Intermediate Water." *Journal of Marine Research*, Vol. 37, No. 1, 1979, pp. 103-139.

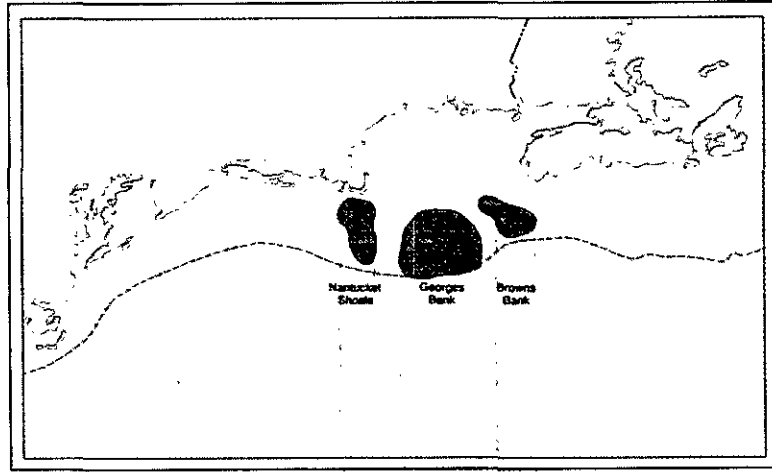


**Figure 14:** Sea surface temperature patterns for selected waters of the southwestern Scotian Shelf, Gulf of Maine, Georges Bank and slope.

Source: Data from World Climate Center, Asheville, North Carolina.

Figure 25

**Distribution of  
Macrobenthic  
Fauna Found on  
Gravel Bottom**



<i>Polymastia</i>	_____
<i>Cliona</i>	_____
<i>Myxilla</i>	_____
<i>Gersemia</i>	_____
<i>Modiolus modiolus</i>	_____
<i>Placopecten magellanicus</i>	_____
<i>Anomia</i>	_____
<i>Musculus niger</i>	_____
<i>Doris</i>	_____
<i>Dentronotus</i>	_____
<i>Hyas coarctatus</i>	_____
<i>Hyas areneus</i>	_____
<i>Balanus crenatus</i>	_____
<i>Balanus hameri</i>	_____
<i>Solaster</i>	_____
<i>Ophiopholis</i>	_____
<i>Ophiacantha</i>	_____
<i>Botlenia</i>	_____
<i>Ascidia callosa</i>	_____
<i>Amaroucium</i>	_____

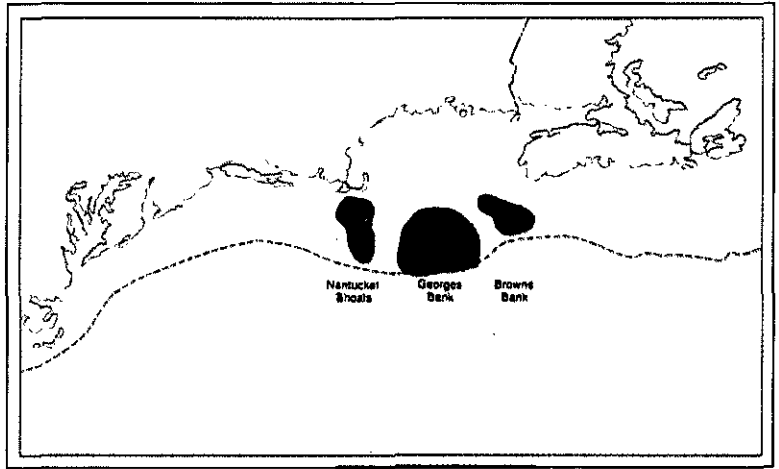
The range of the species is illustrated by the horizontal line. Blue line indicates species of northern origin. Red line indicates species of southern origin. Species commonly occurring on Georges Bank are listed by R. L. Wigley; overall range of distribution provided by K. L. Gosner.

Sources: R. L. Wigley: "Benthic Invertebrates of the New England Fishing Banks." *Underwater Naturalist*, Vol. 5, No. 1, 1968, pp. 1-13; K. L. Gosner: *Guide to Identification of Marine and Estuarine Invertebrates, Cape Hatteras to the Bay of Fundy*. New York, Wiley-Interscience, Inc., 1971.



Figure 26:

Distribution of  
Macrobenthic  
Fauna Found on  
Sand Bottom



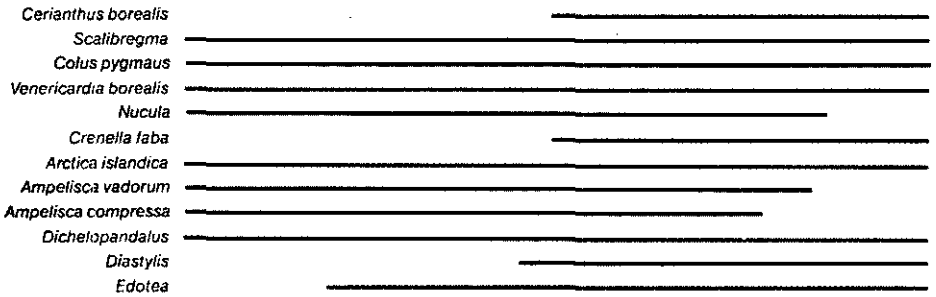
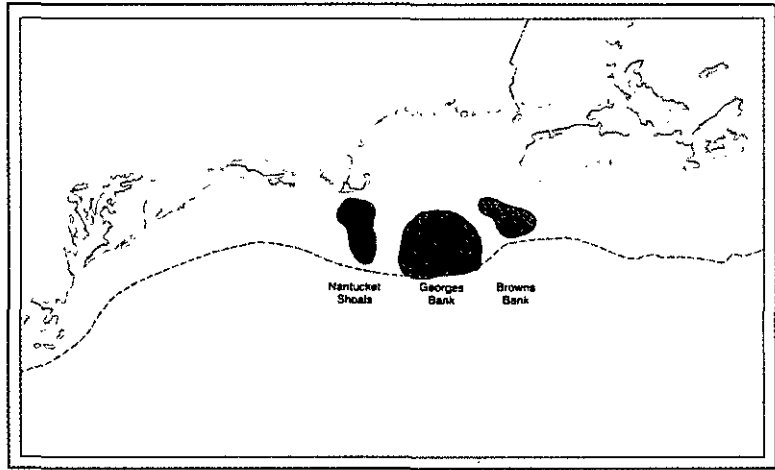
<i>Ophelia denticulata</i>	_____
<i>Goniadella</i> sp.	_____
<i>Clymenella</i> sp.	_____
<i>Heterostigma</i> sp.	_____
<i>Lunelia heros</i>	_____
<i>Nassarius trivittatus</i>	_____
<i>Spisula solidissima</i>	_____
<i>Astarte castanea</i>	_____
<i>Crangon septemspinosis</i>	_____
<i>Chiridota arenicola</i>	_____
<i>Leptocuma (cumacean)</i>	_____
<i>Pagurus acadianus</i>	_____
<i>Echinarachnius parma</i>	_____
<i>Mogula arenata</i>	_____

The range of the species is illustrated by the horizontal line. Blue line indicates species of northern origin. Red line indicates species of southern origin. Species commonly occurring on Georges Bank are listed by R. L. Wigley; overall range of distribution provided by K. L. Gosner.

Sources: R. L. Wigley: "Benthic Invertebrates of the New England Fishing Banks." *Underwater Naturalist*, Vol. 5, No. 1, 1968, pp. 1-13; K. L. Gosner: *Guide to Identification of Marine and Estuarine Invertebrates, Cape Hatteras to the Bay of Fundy*. New York, Wiley-Interscience, Inc., 1971.

Figure 27

**Distribution of  
Macrobenthic  
Fauna Found on  
Silty Sand Bottom**

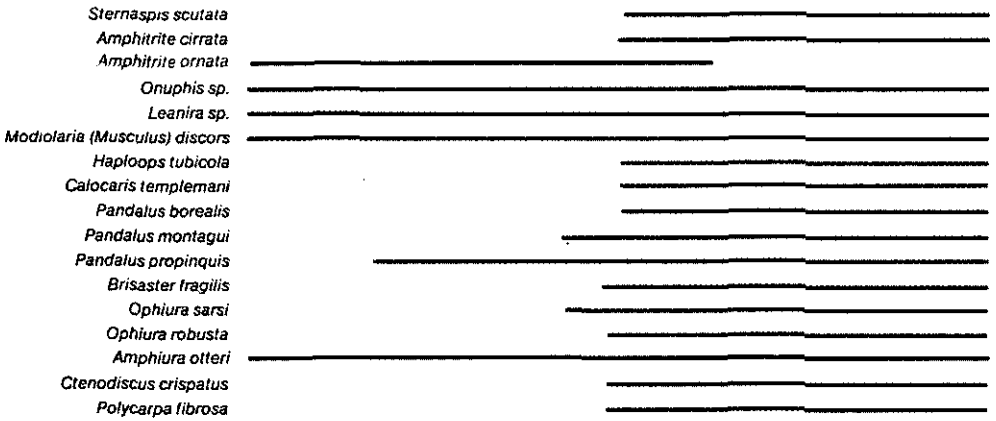
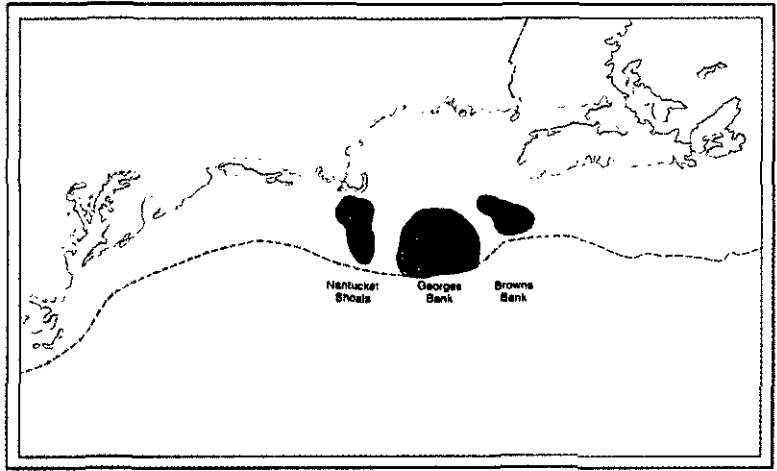


The range of the species is illustrated by the horizontal line. Blue line indicates species of northern origin. Red line indicates species of southern origin. Species commonly occurring on Georges Bank are listed by R. L. Wigley; overall range of distribution provided by K. L. Gosner.

Sources: R. L. Wigley; "Benthic Invertebrates of the New England Fishing Banks." *Underwater Naturalist*, Vol. 5, No. 1, 1968, pp. 1-13; K. L. Gosner; *Guide to Identification of Marine and Estuarine Invertebrates, Cape Hatteras to the Bay of Fundy*. New York, Wiley-Interscience, Inc., 1971.

Figure 28

Distribution of  
Macrobenthic  
Fauna Found on  
Mud Bottom

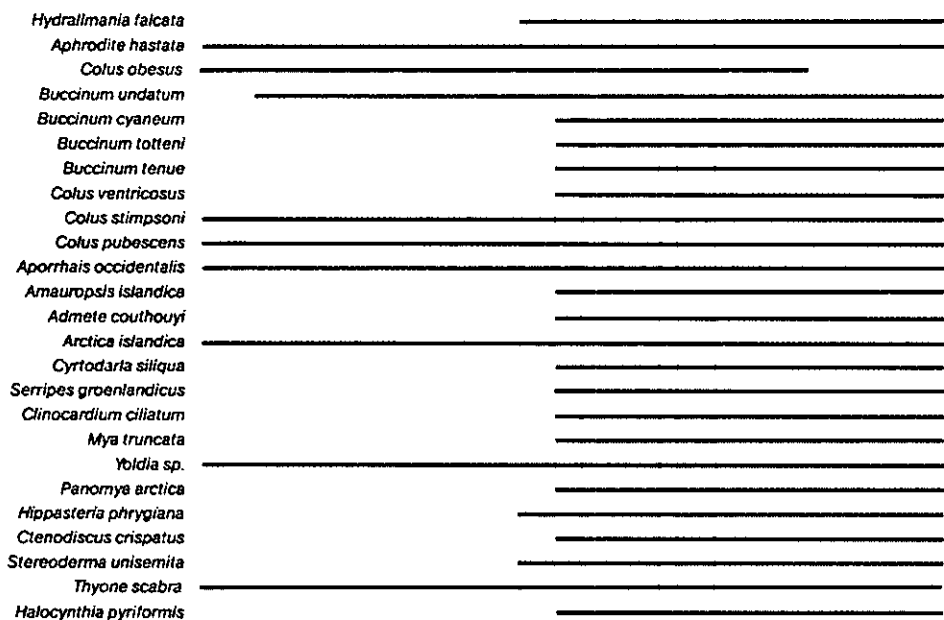
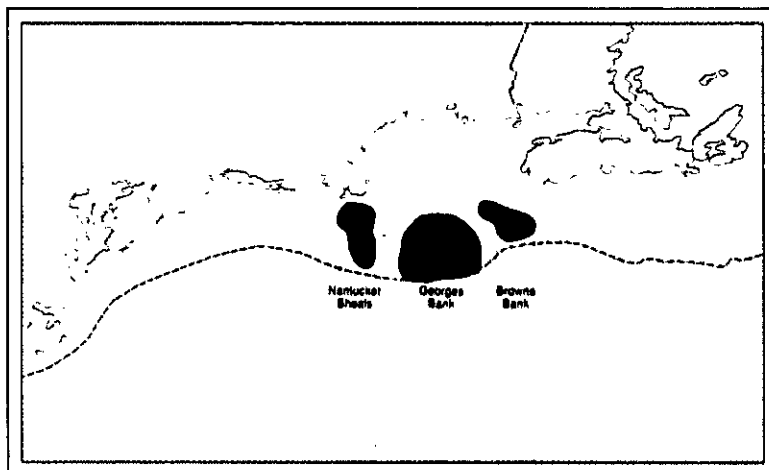


The range of the species is illustrated by the horizontal line. Blue line indicates species of northern origin. Red line indicates species of southern origin. Species commonly occurring on Georges Bank are listed by R. L. Wigley; overall range of distribution provided by K. L. Gosner.

Sources: R. L. Wigley: "Benthic Invertebrates of the New England Fishing Banks." *Underwater Naturalist*, Vol. 5, No. 1, 1968, pp. 1-13; K. L. Gosner: *Guide to Identification of Marine and Estuarine Invertebrates, Cape Hatteras to the Bay of Fundy*. New York, Wiley-Interscience, Inc., 1971.

Figure 29:

## Distribution of Macro-benthic Species Found on Silty, Mud or Unspecified Substrates of the Scotian Shelf

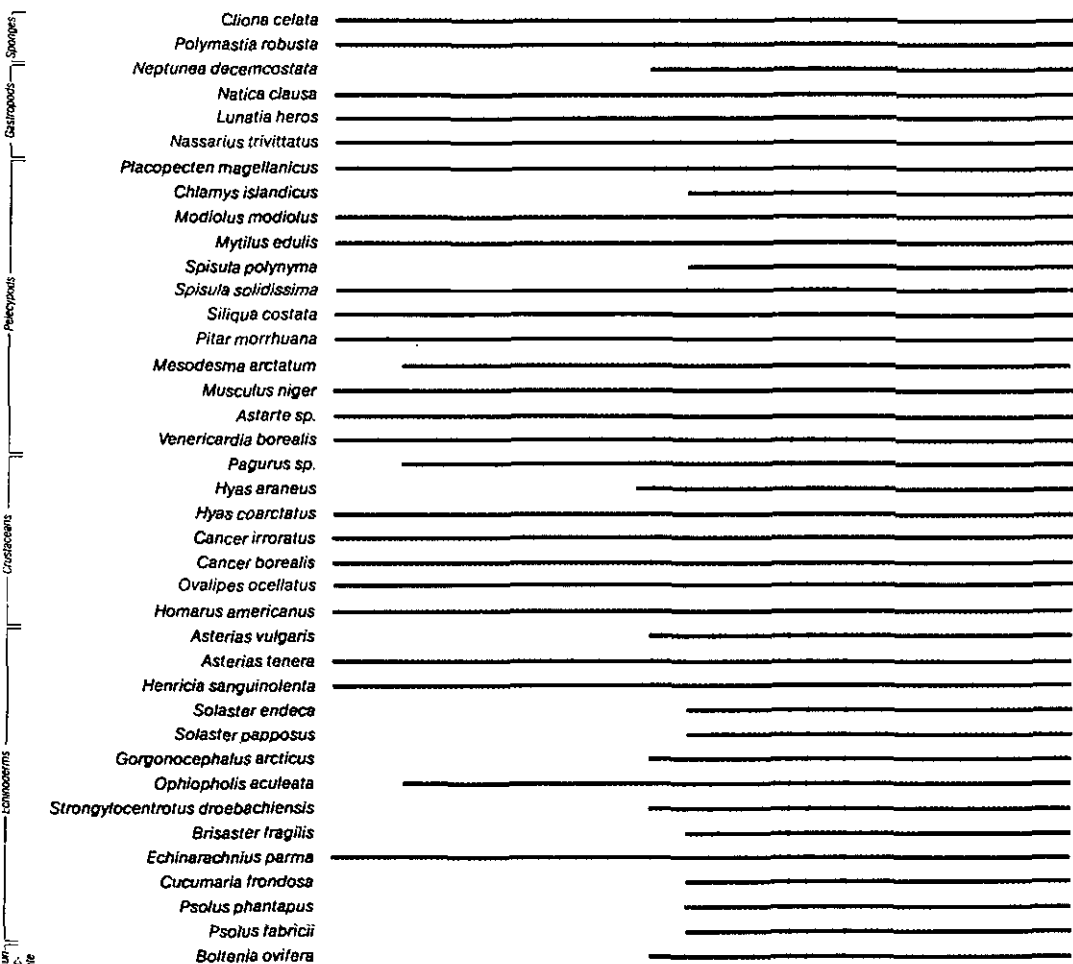
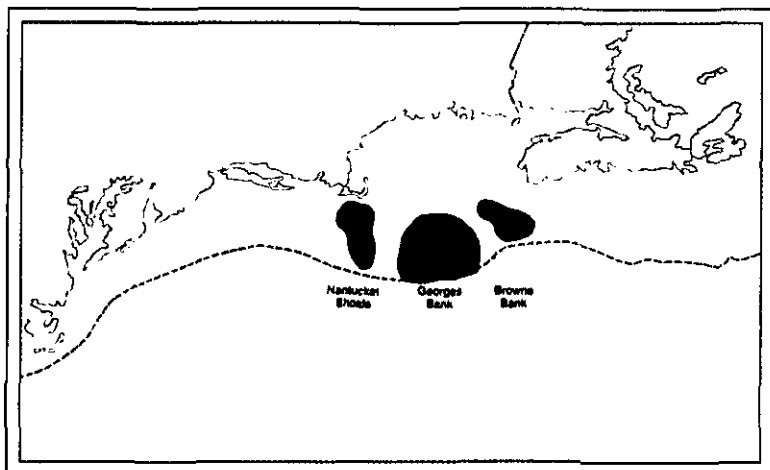


The range of the species is illustrated by the horizontal line. Blue line indicates species of northern origin. Red line indicates species of southern origin. Species found on the Scotian Shelf are provided by T. W. Rowell; southern extent of range given by K. L. Gosner.

Sources: T. W. Rowell: Canadian Department of Fisheries and Oceans, Halifax, unpublished survey data; K. L. Gosner: *Guide to Identification of Marine and Estuarine Invertebrates, Cape Hatteras to the Bay of Fundy*. New York, Wiley-Interscience, Inc., 1971.

Figure 30:

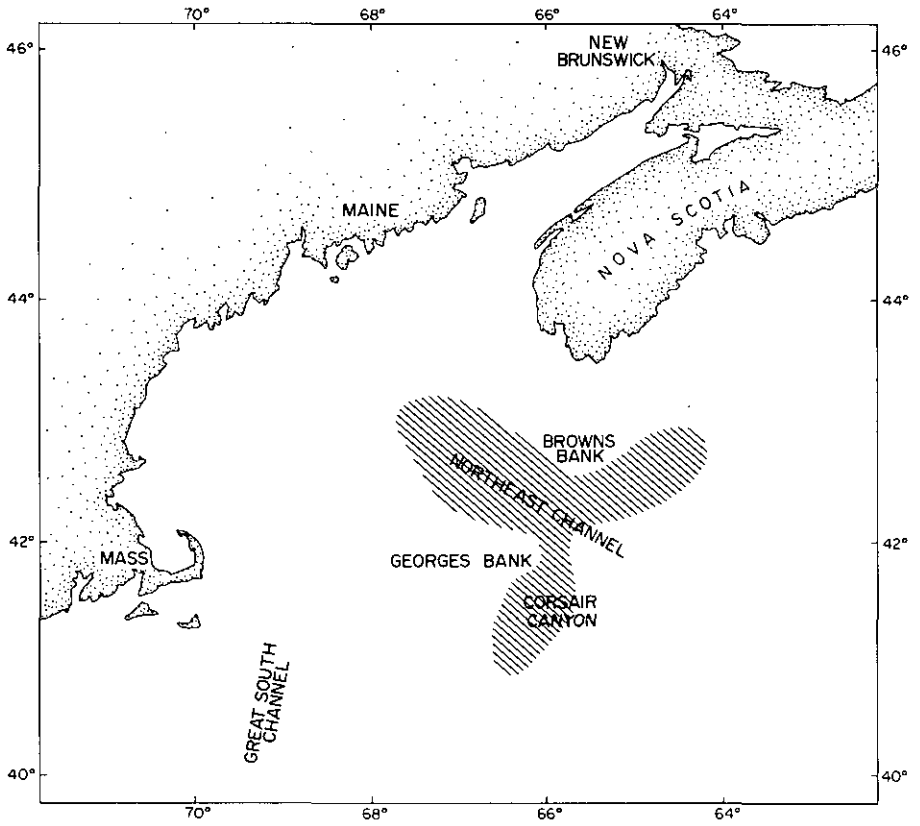
**Distribution of Macrobenthic Species Found on Sand or Gravel and Rock Substrates of the Scotian Shelf**



Projection - Lambert Conformal  
Scale - 1:16 000 000

The range of the species is illustrated by the horizontal line. Blue line indicates species of northern origin. Red line indicates species of southern origin. Species found on the Scotian Shelf are provided by T. W. Rowell; southern extent of range given by K. L. Gosner.

Sources: T. W. Rowell: Canadian Department of Fisheries and Oceans, Halifax, unpublished survey data; K. L. Gosner: *Guide to Identification of Marine and Estuarine Invertebrates, Cape Hatteras to the Bay of Fundy*. New York, Wiley-Interscience, Inc., 1971.



**Figure 40:** Canadian offshore lobster fishing areas in the Gulf of Maine area.

Source: Redrawn from A. B. Stasko and R. W. Pye (see footnote 21).

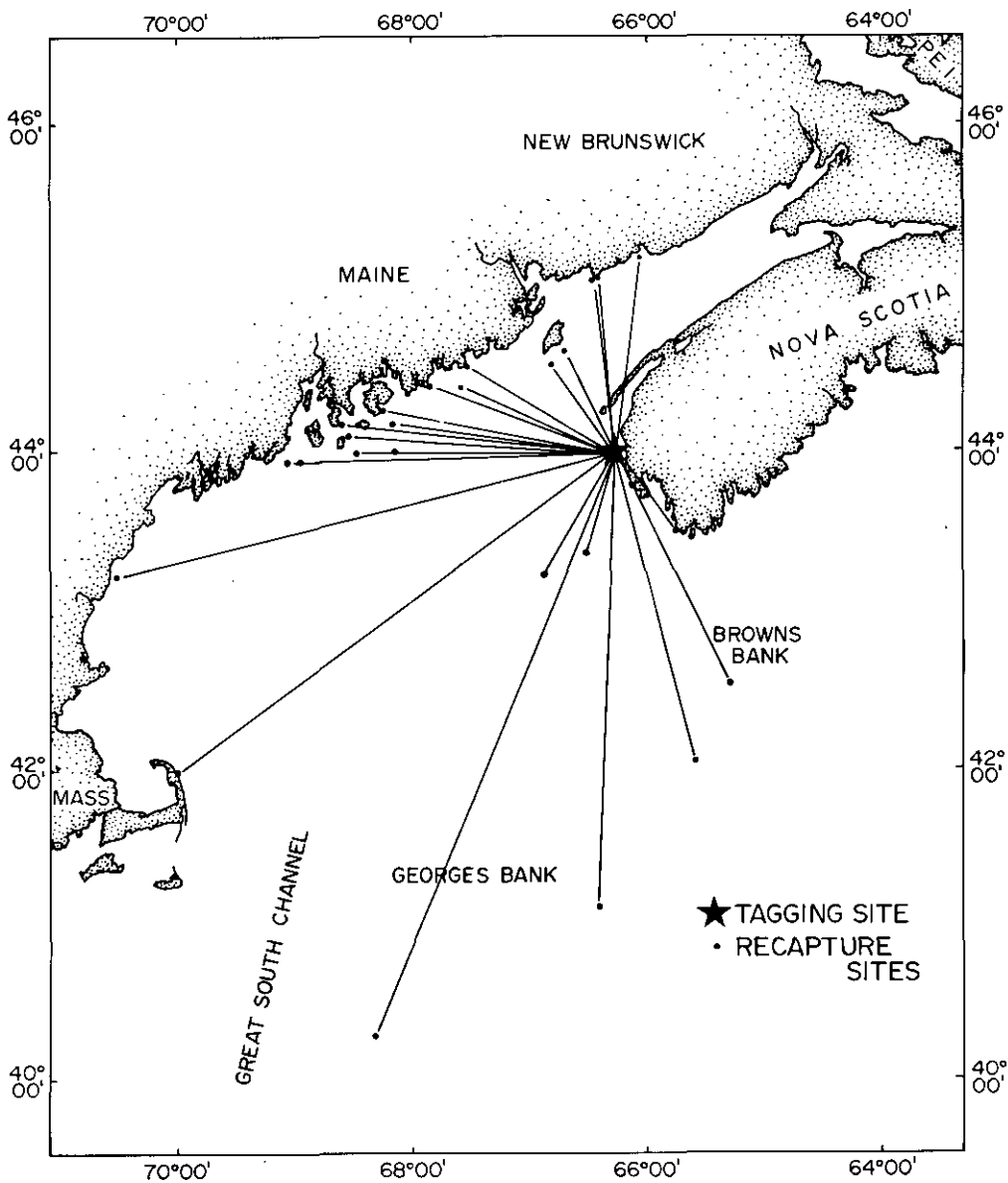
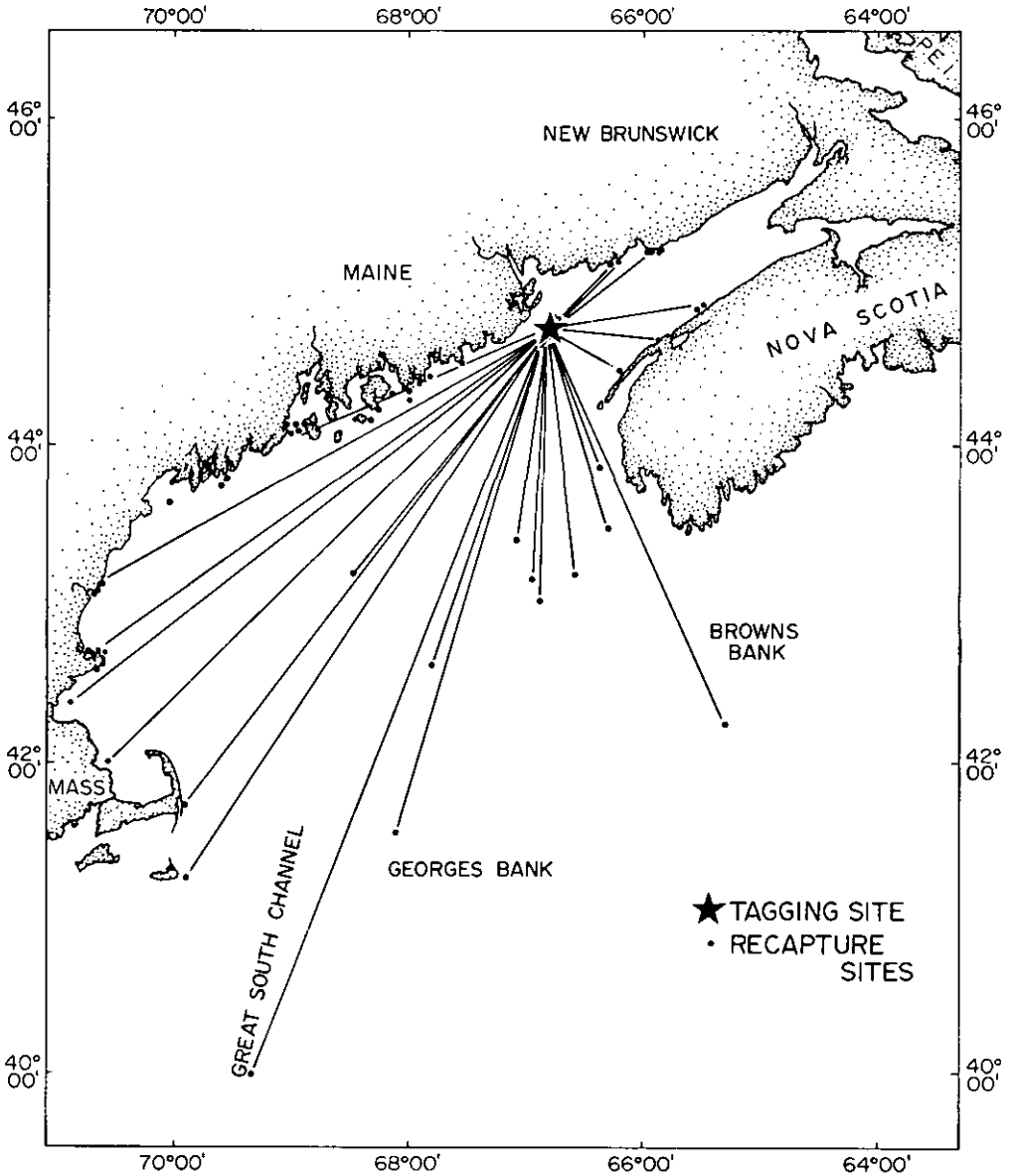


Figure 41: Lobster tag returns, showing extensive migrations from Port Maitland, Nova Scotia throughout the Gulf of Maine area.

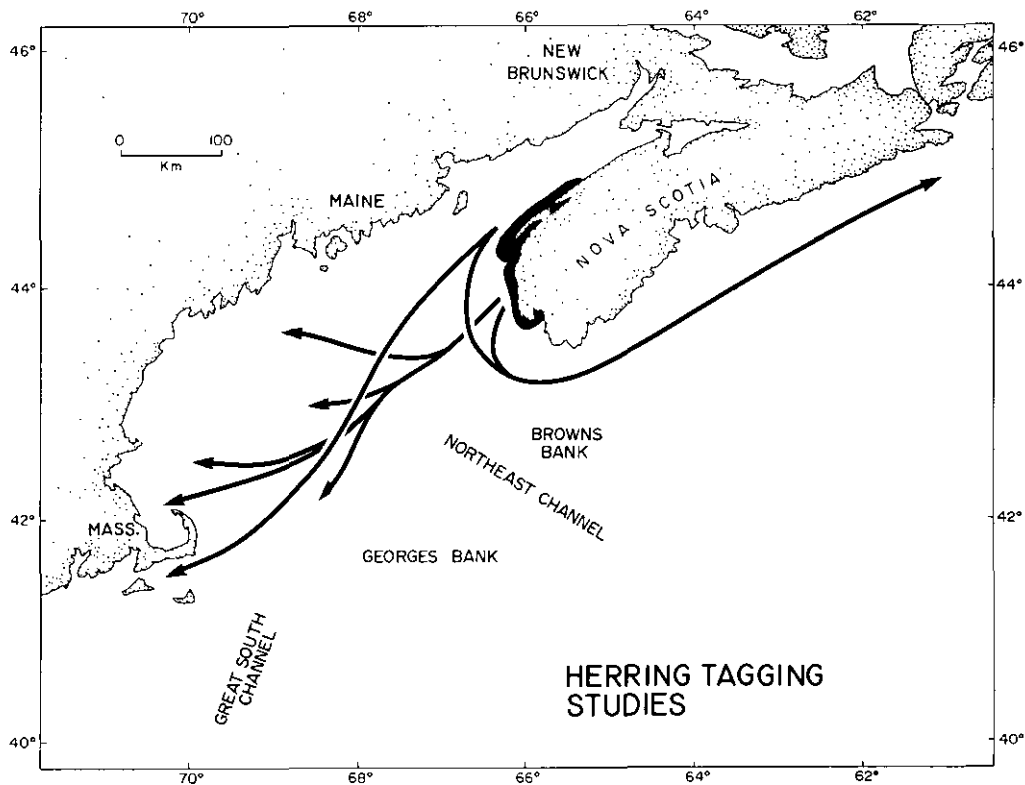
Source: Redrawn from A. Campbell (see footnote 22).



**Figure 42:** Lobster tag returns, showing extensive migrations from Grand Manan, New Brunswick throughout the Gulf of Maine area.

Source: Redrawn from unpublished Canadian Department of Fisheries and Oceans data (see footnote 22).



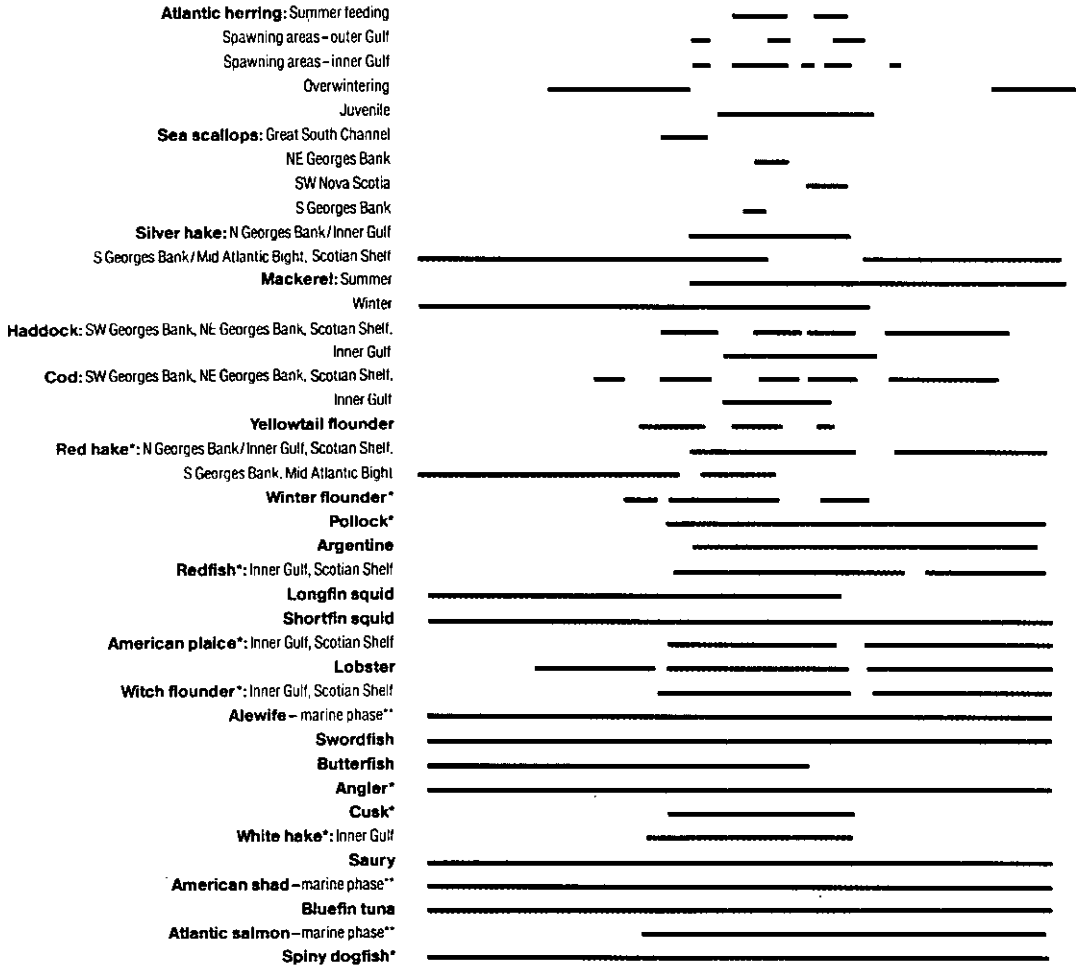
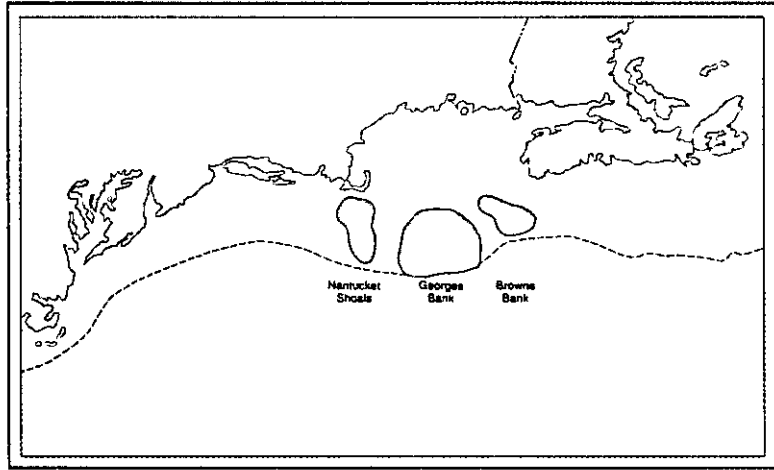


**Figure 53:** Herring tagging studies, showing extensive movement from the Bay of Fundy throughout the Gulf of Maine area and beyond.

Source: Redrawn from W. T. Stobo (see footnote 31).

Figure 60:

Ranges of Stocks  
of 28 Commercially  
Important Species

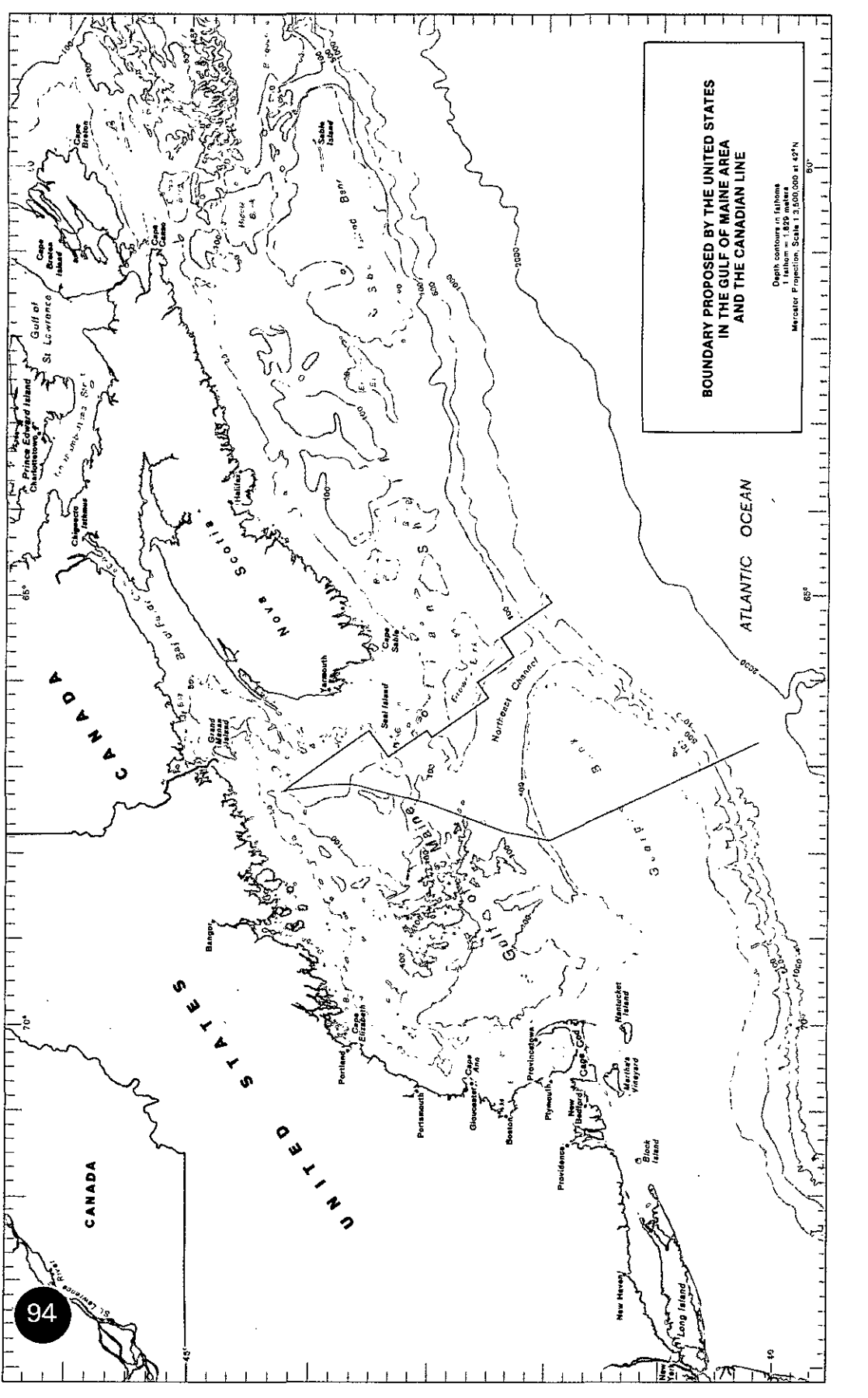


Projection – Lambert Conformal  
Scale – 1:16 000 000

\*Stock structure uncertain

\*\*Discrete stocks spawning in the different rivers are mixed together when they migrate to

the oceans during the marine phase of their life history.



**BOUNDARY PROPOSED BY THE UNITED STATES  
IN THE GULF OF MAINE AREA  
AND THE CANADIAN LINE**

Depth contours in fathoms  
1 fathom = 1.829 meters  
Mercator Projection, Scale 1:3,500,000 at 43°N

Figure 3

**EAST COAST OF NORTH AMERICA**

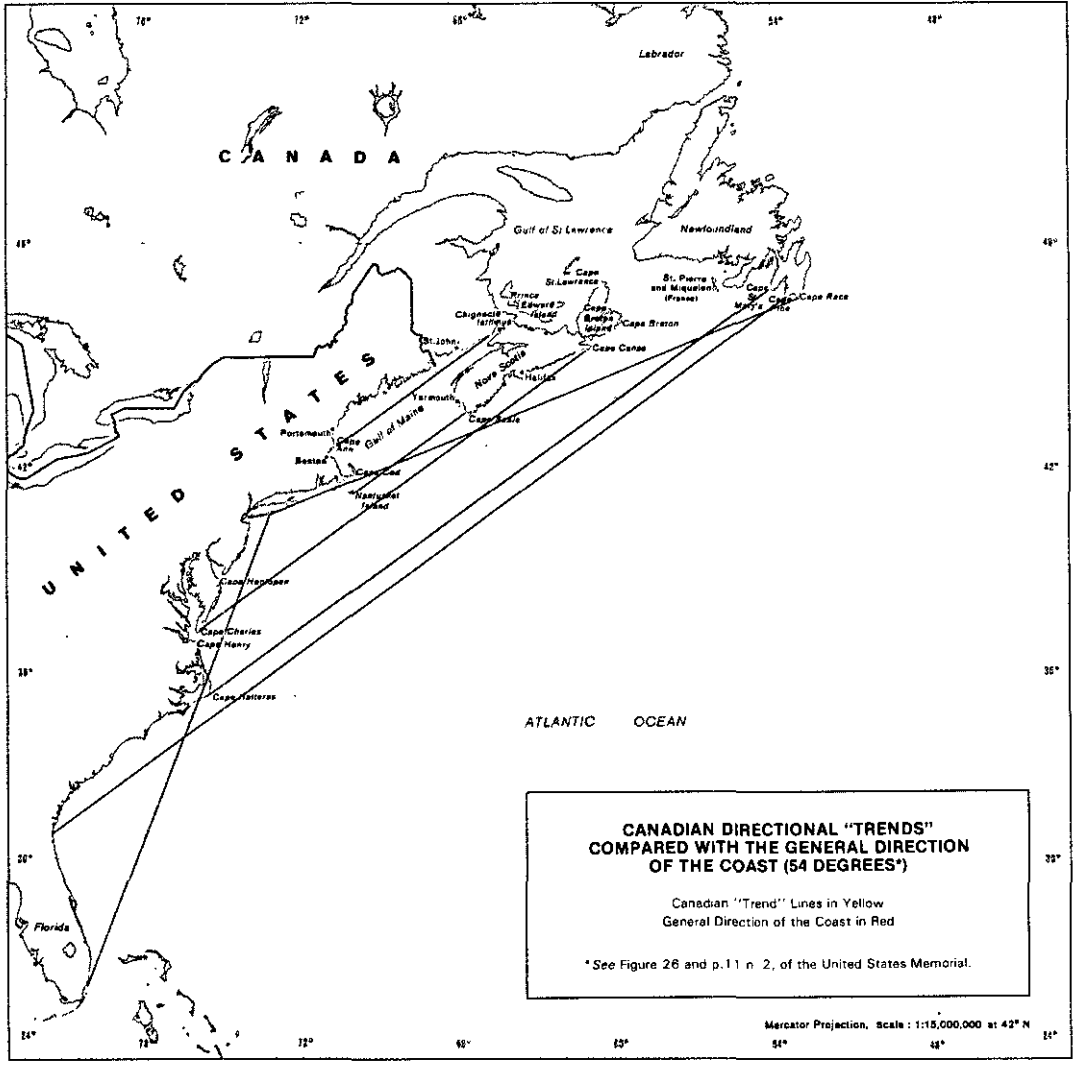
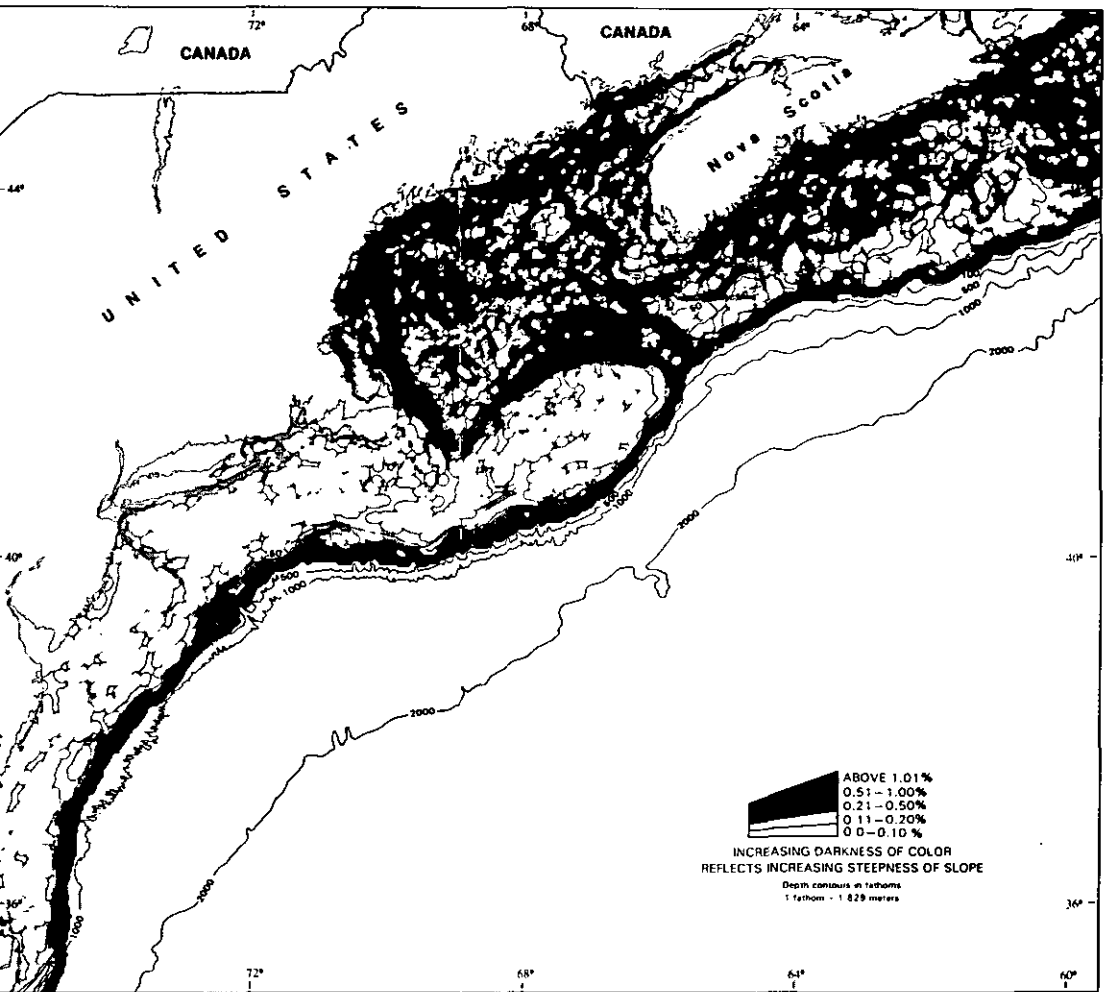


Figure 5



SEABED GRADIENTS — THE RATE OF DESCENT

Figure 8

**UNITED STATES AND CANADA REPORTED GROUND FISH  
CATCHES IN SUBAREAS 3, 4 AND 5 FOR THE YEARS 1893—1950**  
(in metric tons)

UNITED STATES      CANADA

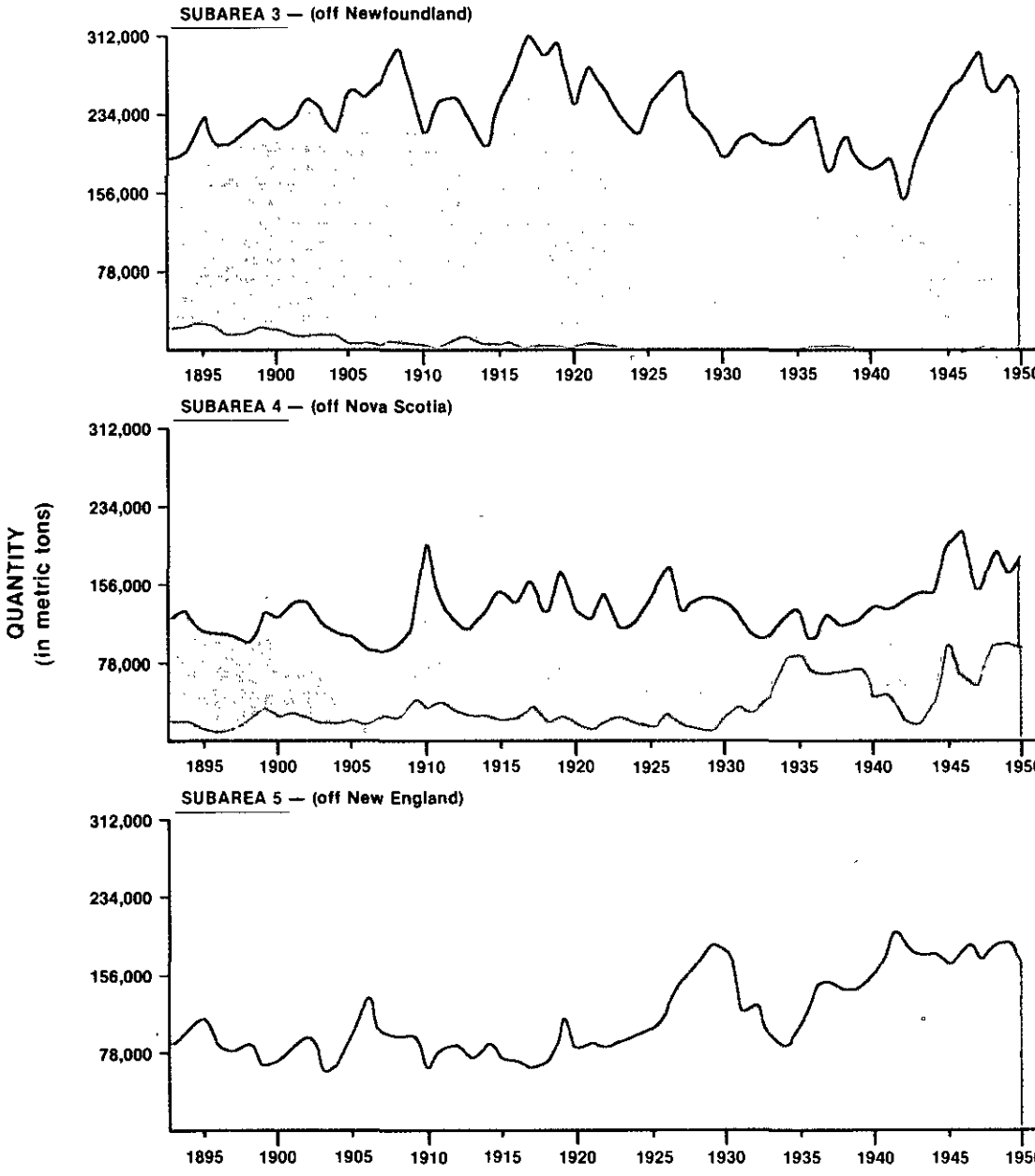
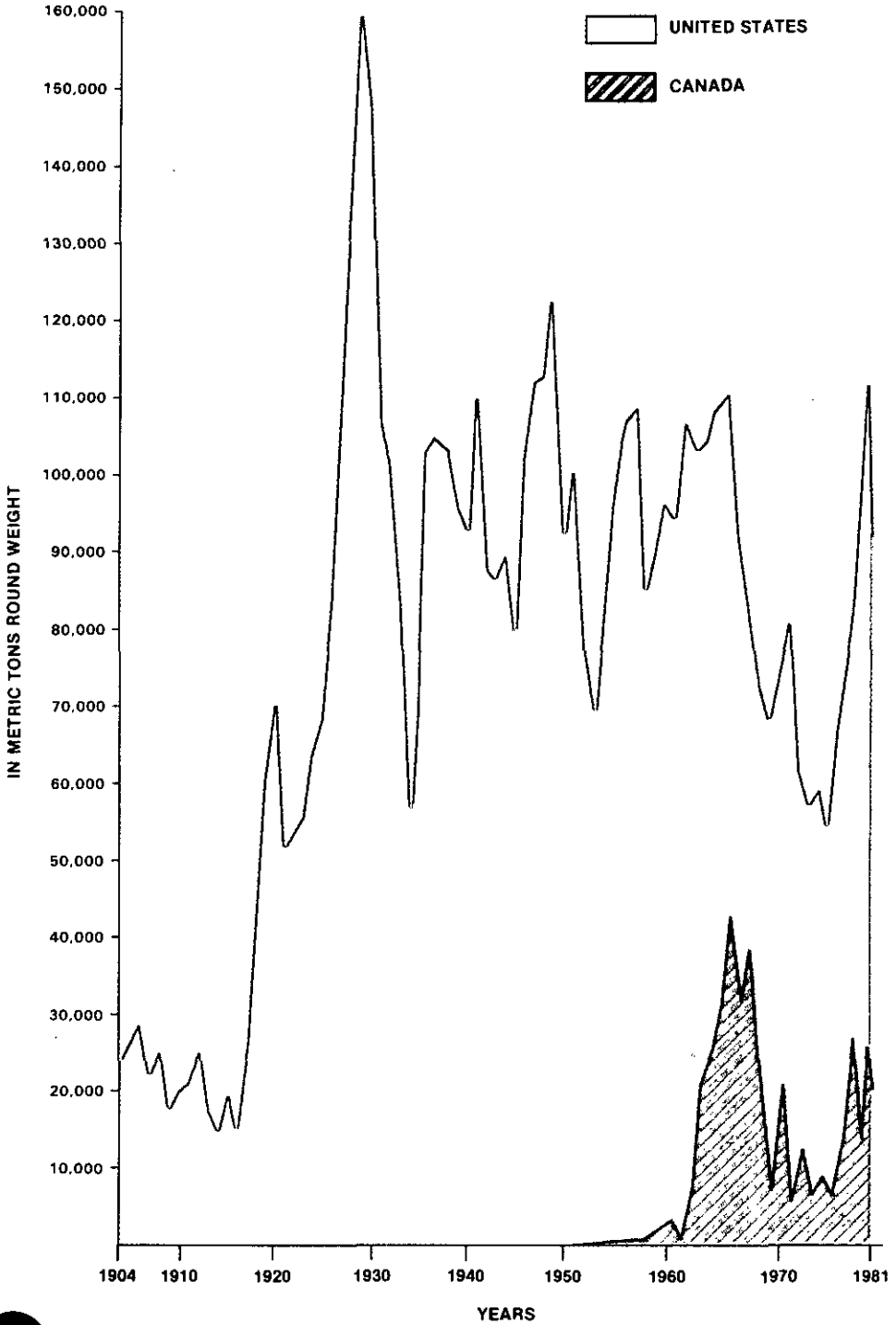


Figure 9

**NON-SCALLOP CATCHES OF THE UNITED STATES AND  
CANADA FROM GEORGES BANK FOR THE YEARS 1904—1981**  
(in metric tons round weight)



REPORTED SCALLOP CATCHES OF THE UNITED STATES  
AND CANADA FROM GEORGES BANK FOR THE YEARS 1940—1981  
(in metric tons meat weight)

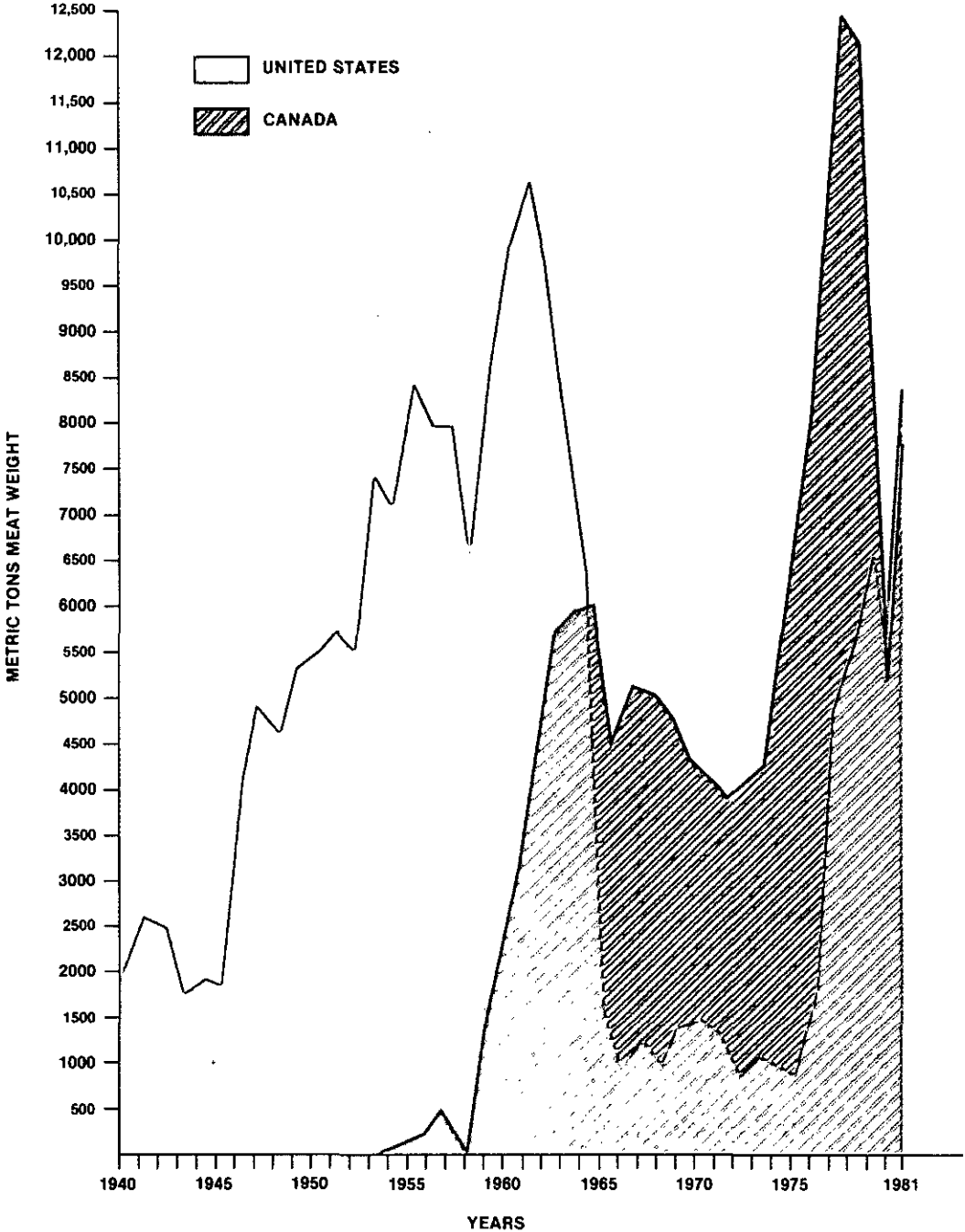
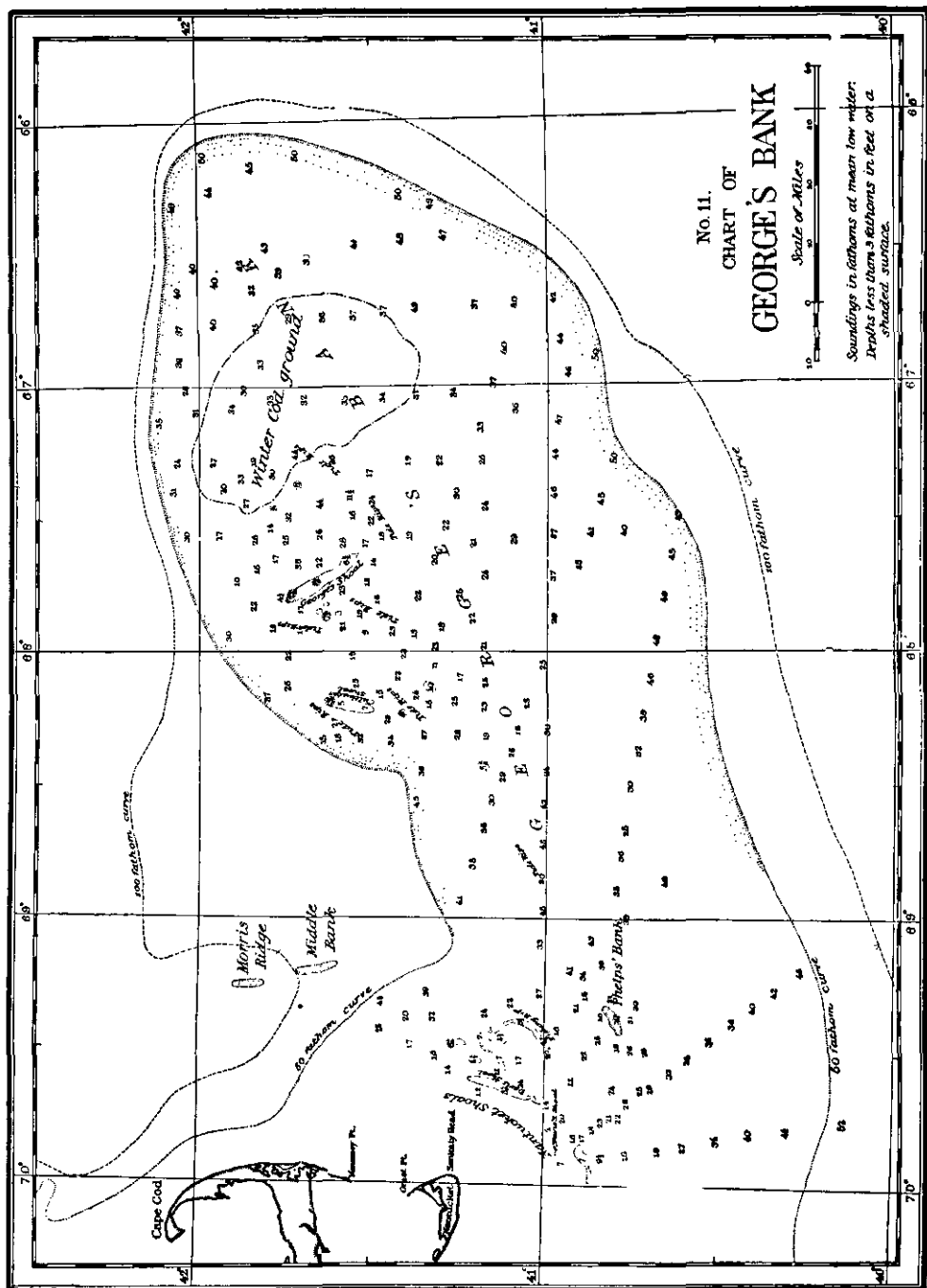
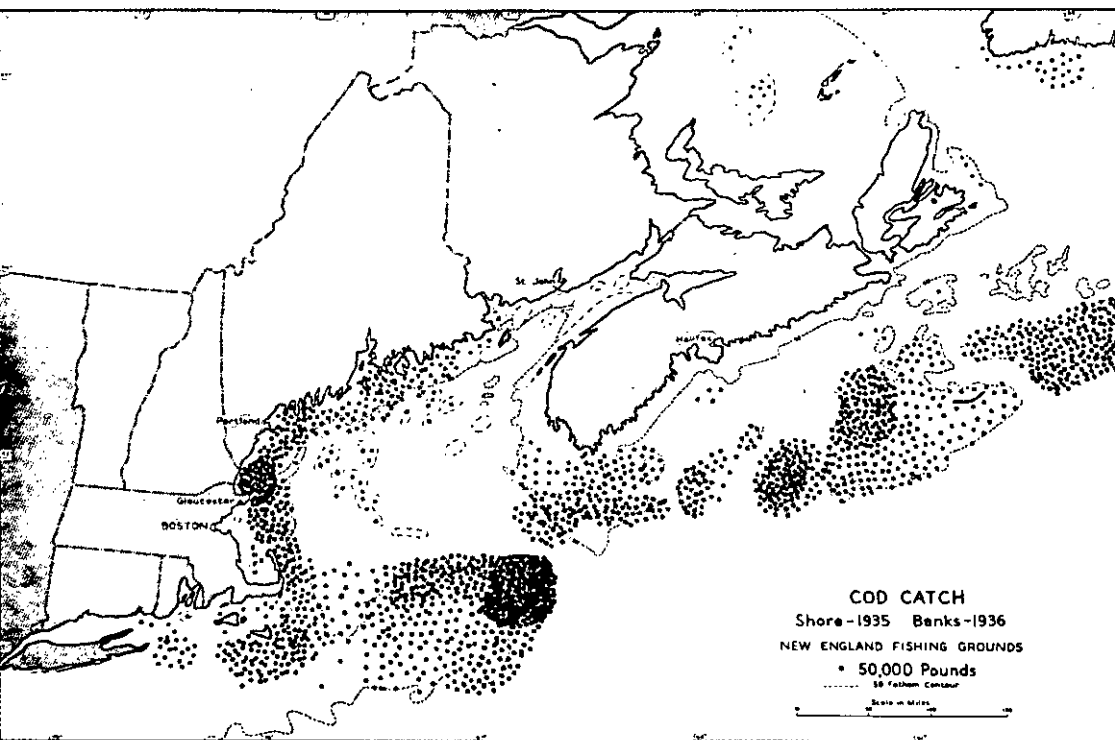




Figure 11



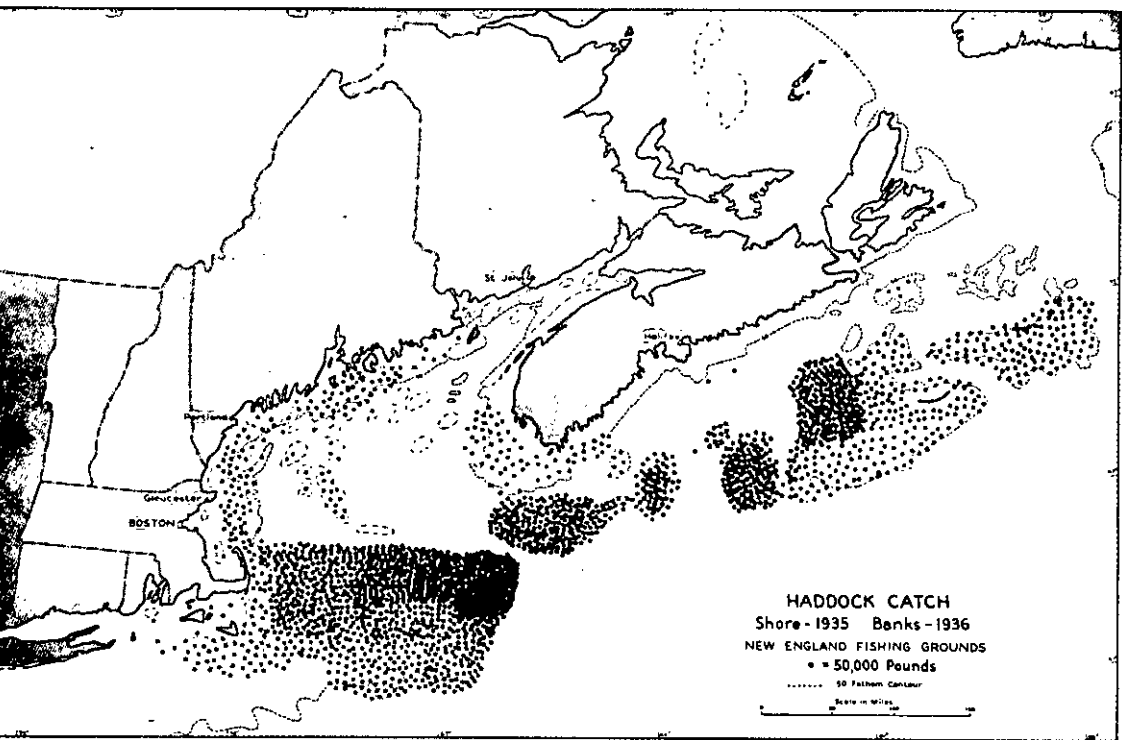
**THE GEORGES BANK WINTER FISHING GROUND**  
 Reproduced from G.B. Goode, *The Fisheries and Fishing Industries of the United States*, 1887 (Section III)



**NEW ENGLAND COD AND HADDOCK CATCHES ON THE INSHORE GROUNDS (1935) AND THE OFFSHORE BANKS (1936)**

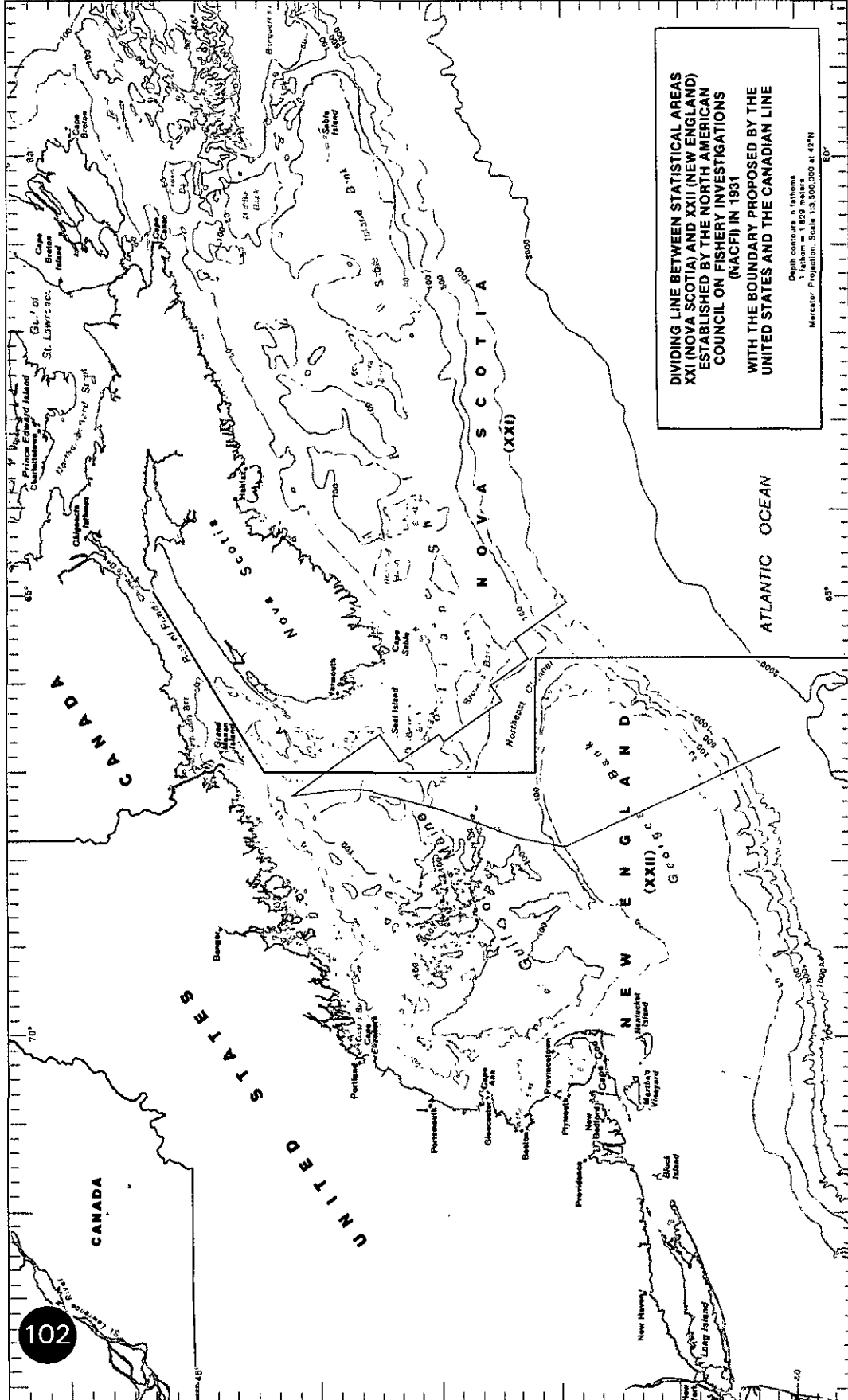
**Each dot represents 50,000 pounds of catch**

Source: E.A. Ackerman, *New England's Fishing Industry*, 1941 pp. 15, 17.



HADDOCK CATCH  
Shore - 1935 Banks - 1936  
NEW ENGLAND FISHING GROUNDS  
• = 50,000 Pounds  
..... 50 Fathom Contour  
Scale in Miles

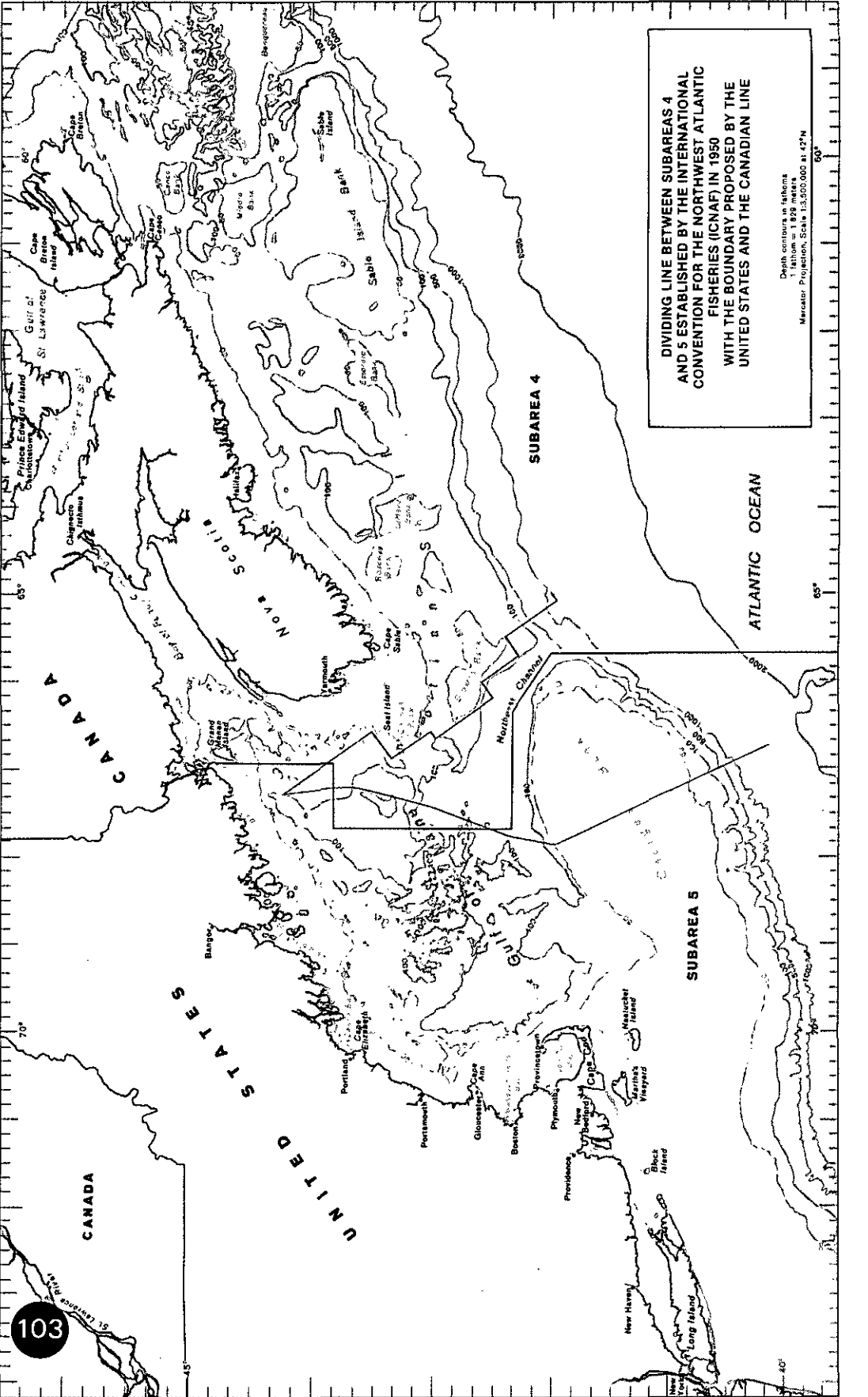
Figure 14



**DIVIDING LINE BETWEEN STATISTICAL AREAS  
XXI (NOVA SCOTIA) AND XXII (NEW ENGLAND)  
ESTABLISHED BY THE NORTH AMERICAN  
COUNCIL ON FISHERY INVESTIGATIONS  
(NACFI) IN 1931**

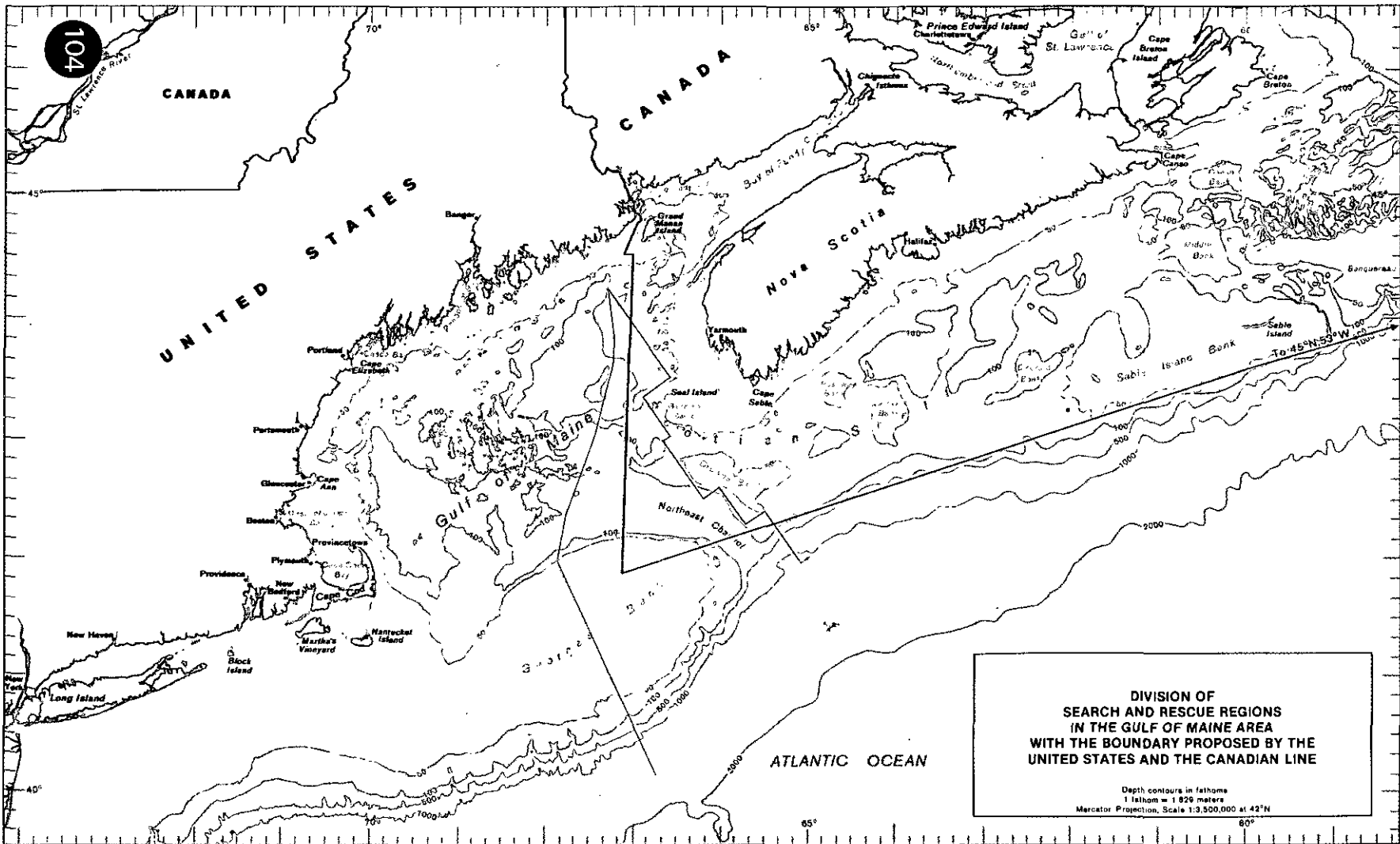
**WITH THE BOUNDARY PROPOSED BY THE  
UNITED STATES AND THE CANADIAN LINE**

Depth contours in fathoms  
1 fathom = 1.828 meters  
Mercator Projection. Scale 1:53,000,000 at 47°N



DIVIDING LINE BETWEEN SUBAREAS 4  
 AND 5 ESTABLISHED BY THE INTERNATIONAL  
 CONVENTION FOR THE NORTHWEST ATLANTIC  
 FISHERIES (ICNAF) IN 1950  
 WITH THE BOUNDARY PROPOSED BY THE  
 UNITED STATES AND THE CANADIAN LINE

Depth contours in fathoms  
 1 fathom = 1.828 meters  
 Mercator Projection, Scale 1:5,000,000 at 42°N



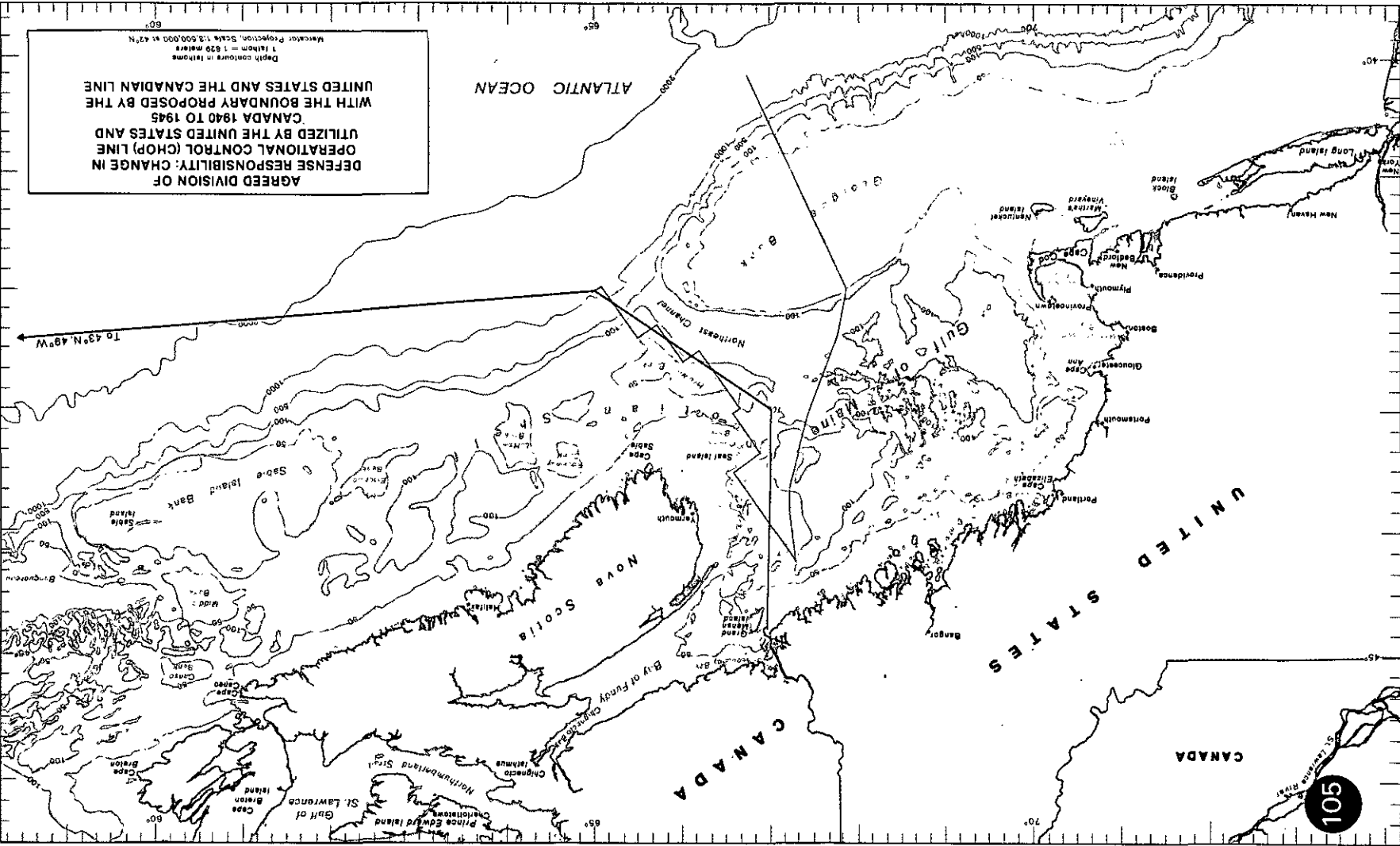
AGREED DIVISION OF  
DEFENSE RESPONSIBILITY, CHANGE IN  
OPERATIONAL CONTROL (CHOP) LINE  
UTILIZED BY THE UNITED STATES AND  
CANADA 1940 TO 1945  
WITH THE BOUNDARY PROPOSED BY THE  
UNITED STATES AND THE CANADIAN LINE

Depth contours in fathoms  
1 fathom = 1 820 meters

Merckator Projection, Scale 1:500,000 at 47°N

60°

ATLANTIC OCEAN

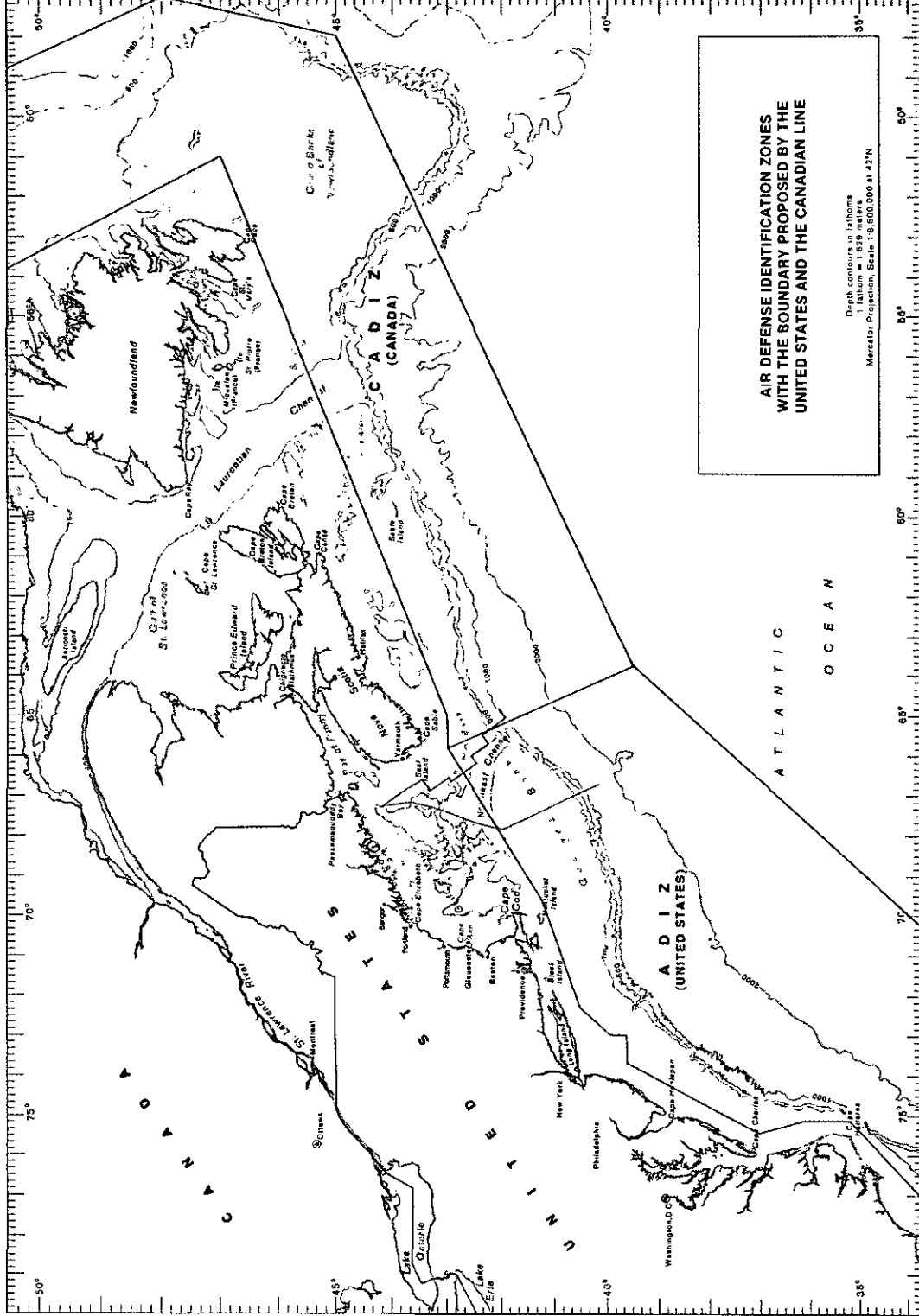


To 43°N 48°W

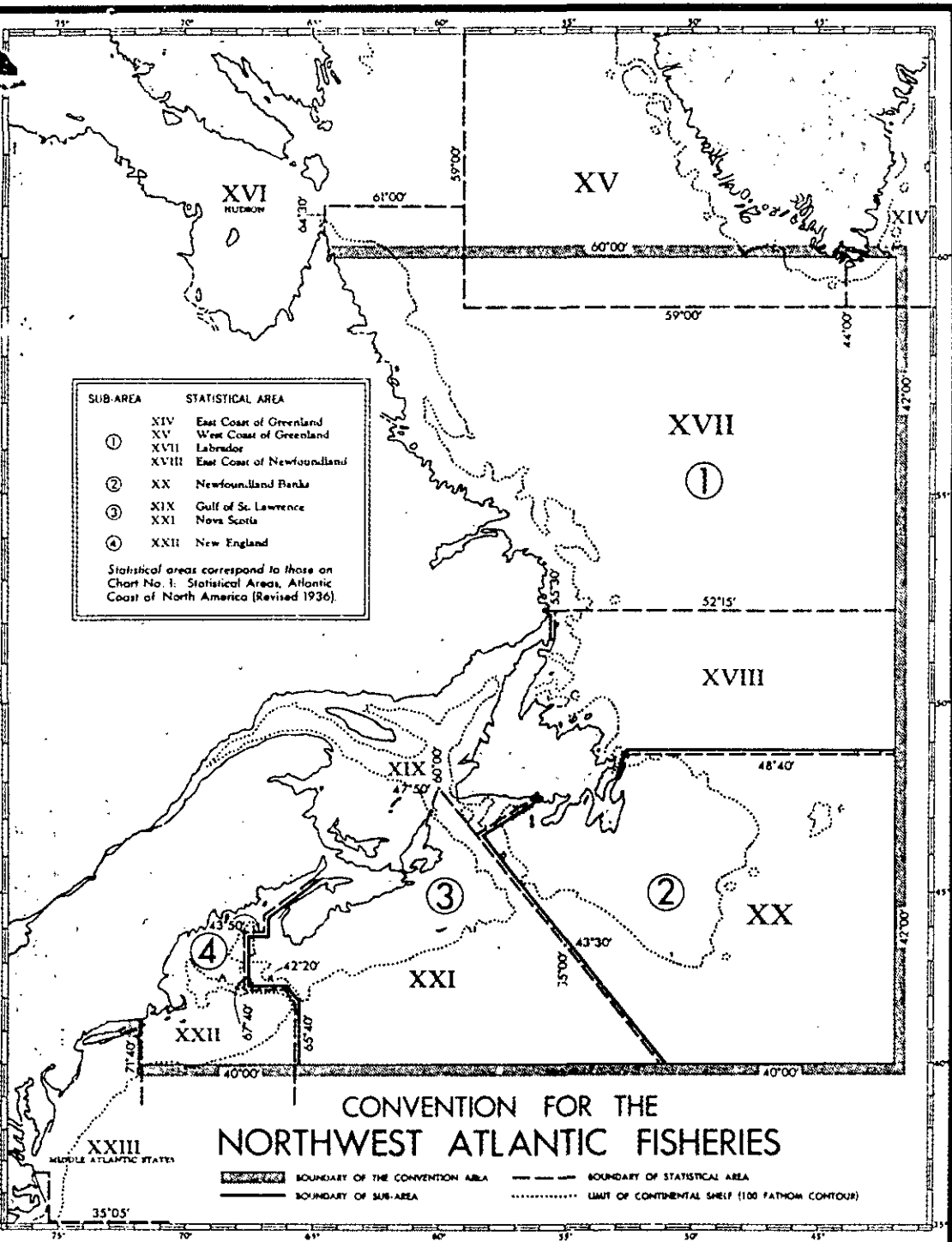
CANADA

UNITED STATES

Figure 18







**MAP ATTACHED TO THE UNITED STATES DRAFT CONVENTION (FEBRUARY 1948) PICTURING PROPOSED SUBAREA BOUNDARIES AND THE 100-FATHOM DEPTH CONTOUR AS THE LIMIT OF THE CONTINENTAL SHELF**

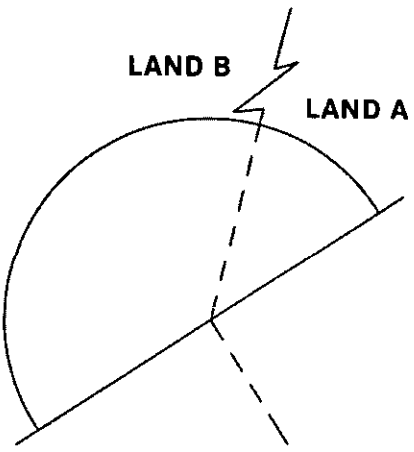
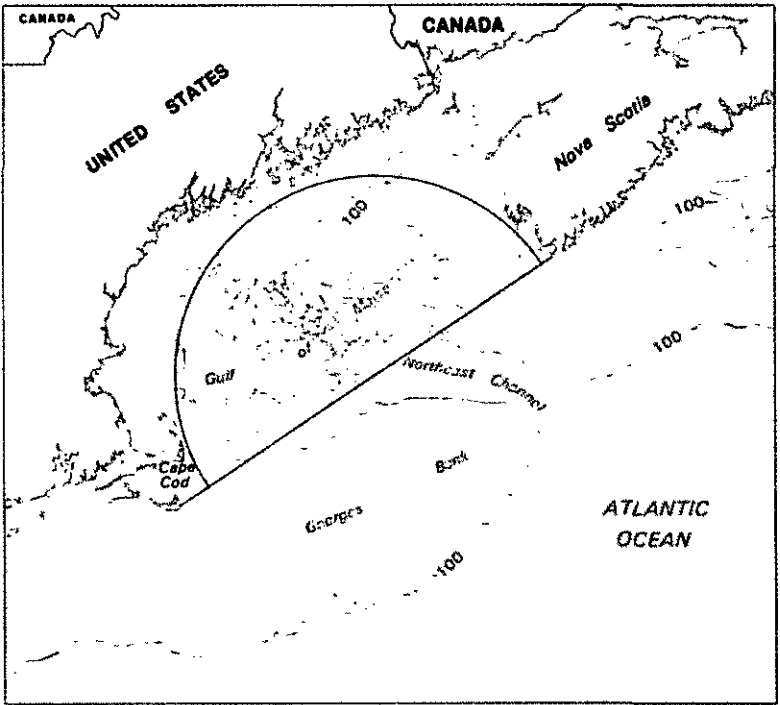
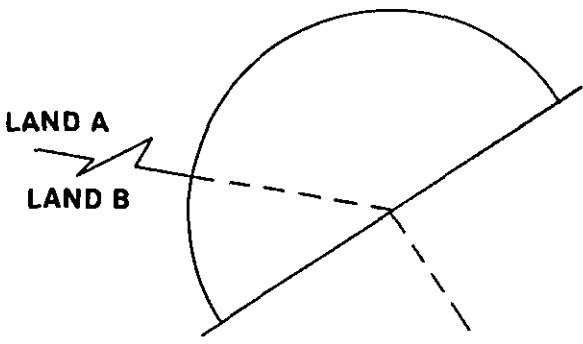
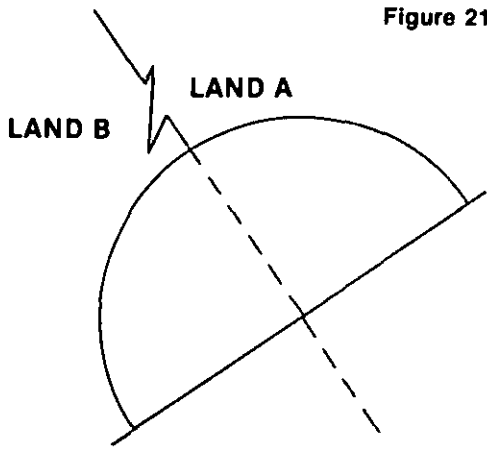
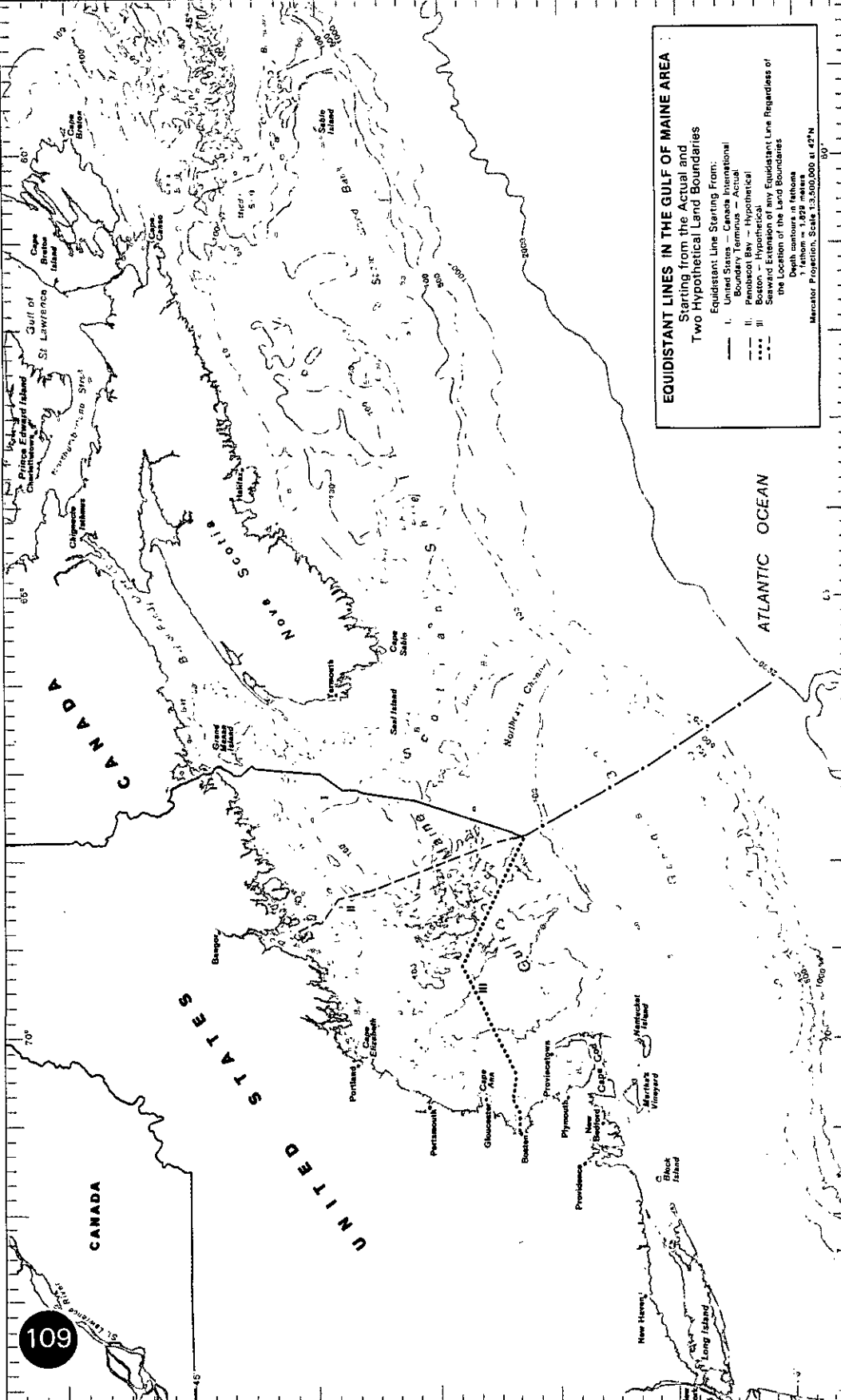


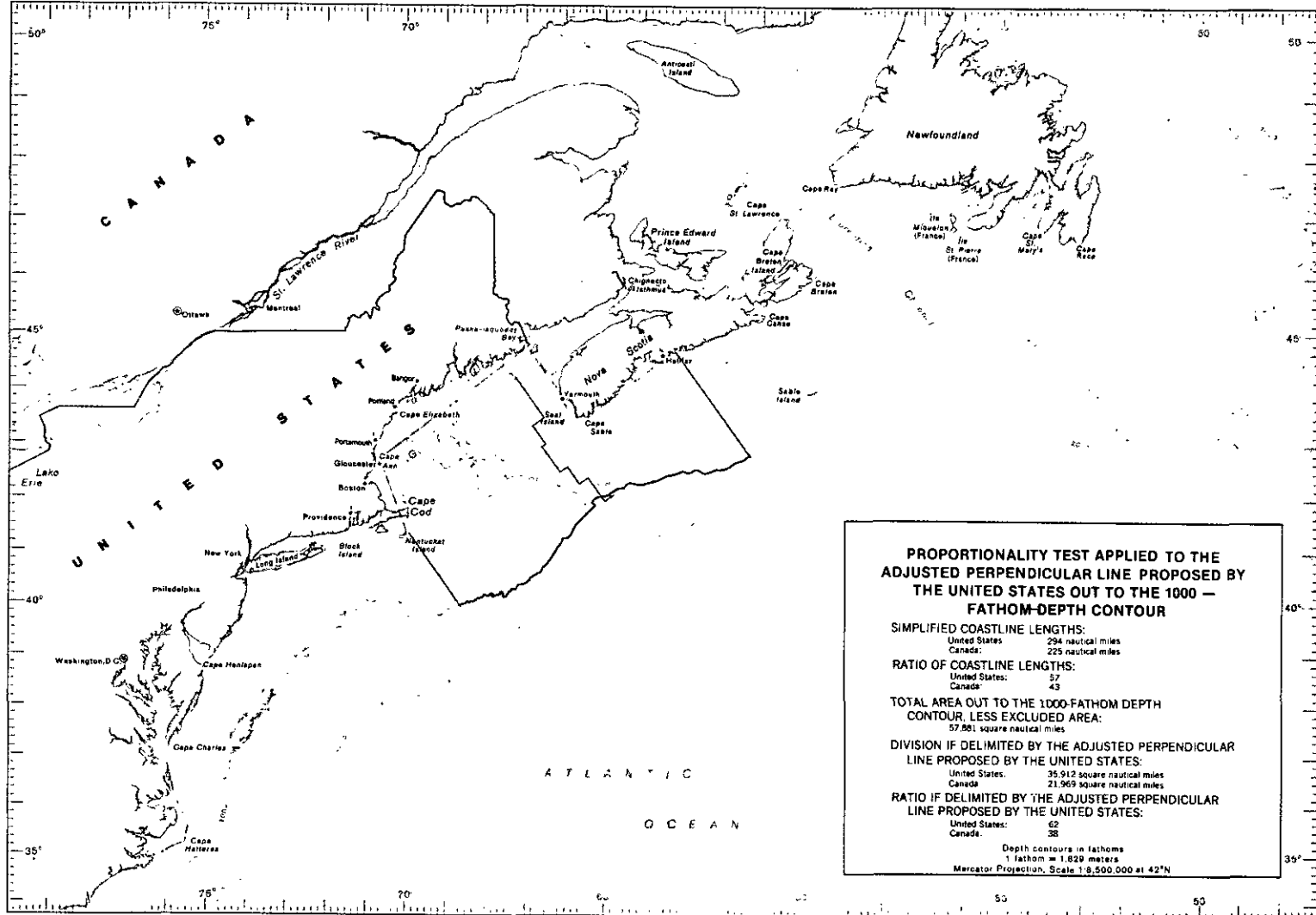
Figure 21



**APPLICATION OF THE EQUIDISTANCE METHOD IN A DEEP CONCAVITY: REGARDLESS OF THE LOCATION OF THE LAND BOUNDARY, THE EQUIDISTANT LINE WILL INTERSECT THE CLOSING LINE OF THE CONCAVITY AT ITS MID-POINT AND WILL EXTEND SEAWARD AS A LINE ESSENTIALLY PERPENDICULAR TO THE CLOSING LINE**

Figure 22





**PROPORTIONALITY TEST APPLIED TO THE  
ADJUSTED PERPENDICULAR LINE PROPOSED BY  
THE UNITED STATES OUT TO THE 1000 —  
FATHOM-DEPTH CONTOUR**

**SIMPLIFIED COASTLINE LENGTHS:**

United States: 294 nautical miles  
Canada: 229 nautical miles

**RATIO OF COASTLINE LENGTHS:**

United States: 57  
Canada: 43

**TOTAL AREA OUT TO THE 1000-FATHOM DEPTH  
CONTOUR, LESS EXCLUDED AREA:**

57,801 square nautical miles

**DIVISION IF DELIMITED BY THE ADJUSTED PERPENDICULAR  
LINE PROPOSED BY THE UNITED STATES:**

United States: 35,912 square nautical miles  
Canada: 21,909 square nautical miles

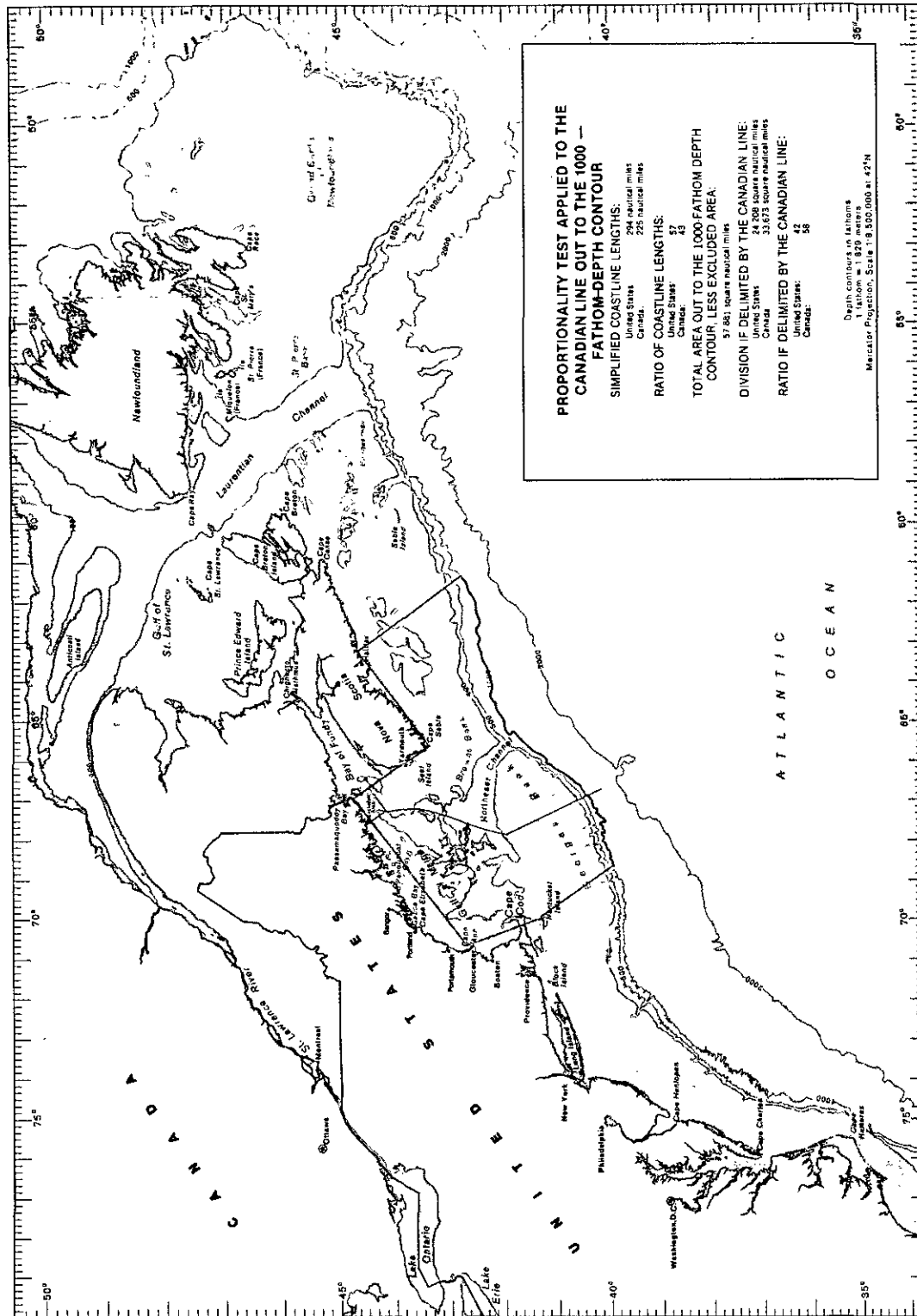
**RATIO IF DELIMITED BY THE ADJUSTED PERPENDICULAR  
LINE PROPOSED BY THE UNITED STATES:**

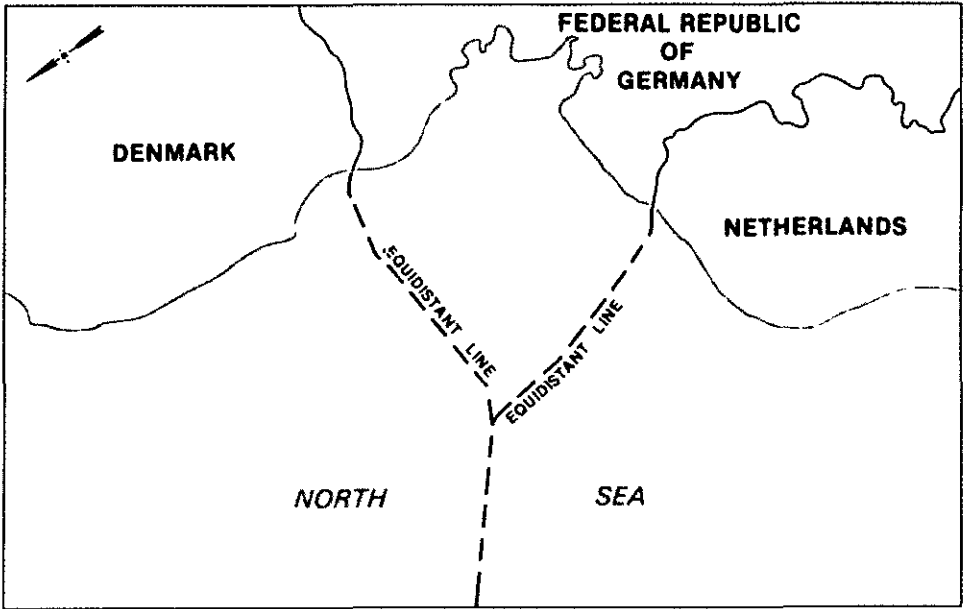
United States: 62  
Canada: 38

Depth contours in fathoms  
1 fathom = 1,829 meters

Mercator Projection, Scale 1:8,500,000 at 42°N

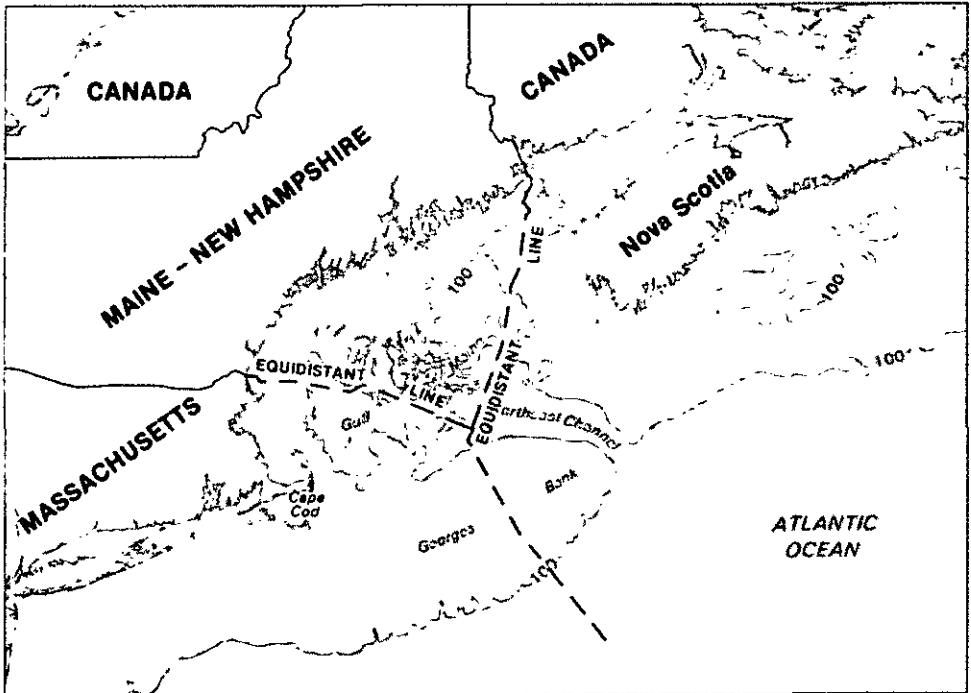
Figure 25



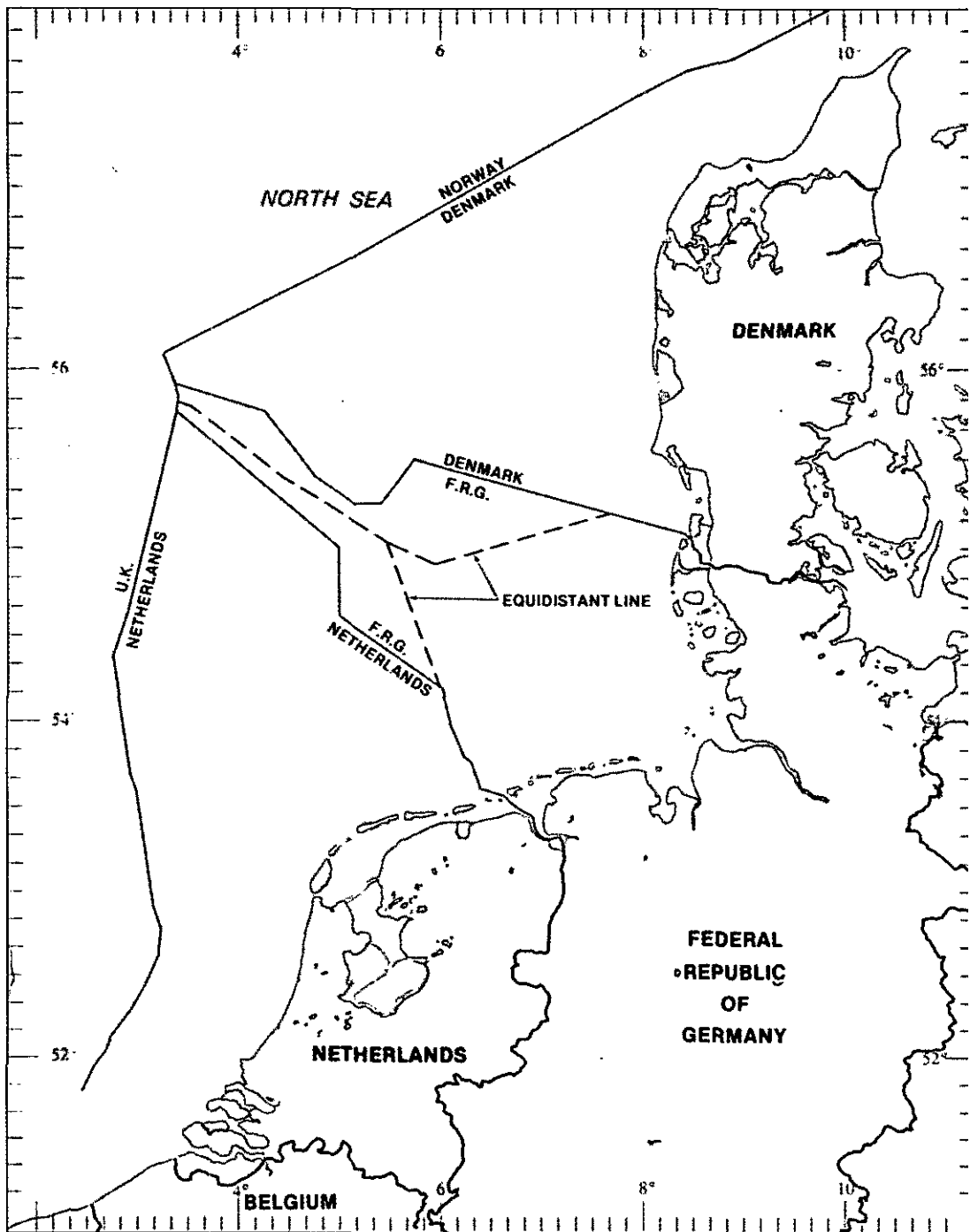


**A. EQUIDISTANT-LINE BOUNDARIES IN THE NORTH SEA**

Figure A is based upon Figure 18 in Memorial of the Federal Republic of Germany, *I.C.J. Pleadings, North Sea Continental Shelf*, Vol. I, p. 73.



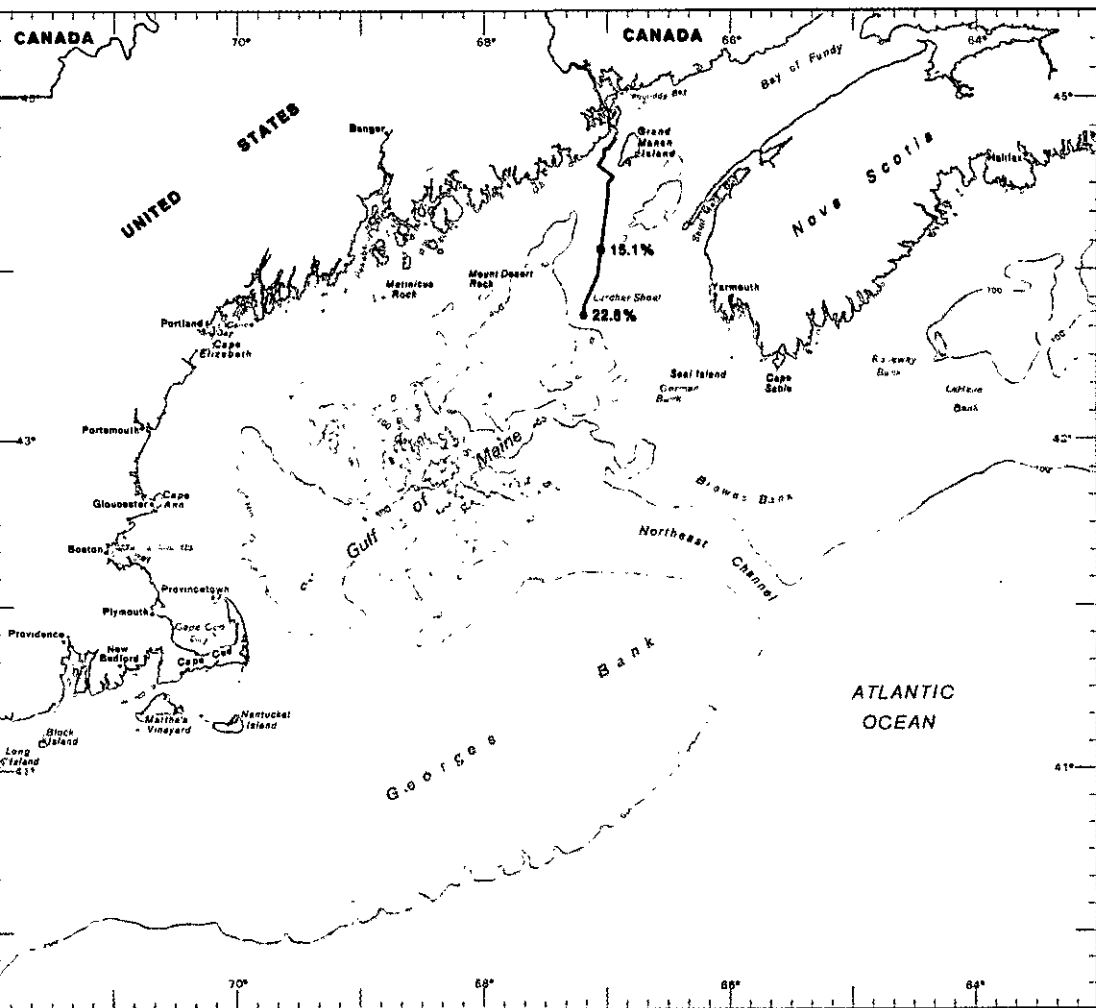
**B. EQUIDISTANT-LINE BOUNDARIES IN THE GULF OF MAINE**



AGREED NORTH SEA CONTINENTAL SHELF BOUNDARIES AS COMPARED TO EQUIDISTANT LINES

The red lines represent the continental shelf boundaries established by agreements between the States concerned. The black, dashed lines represent the equidistant lines that had been proposed as boundaries by Denmark and the Netherlands.

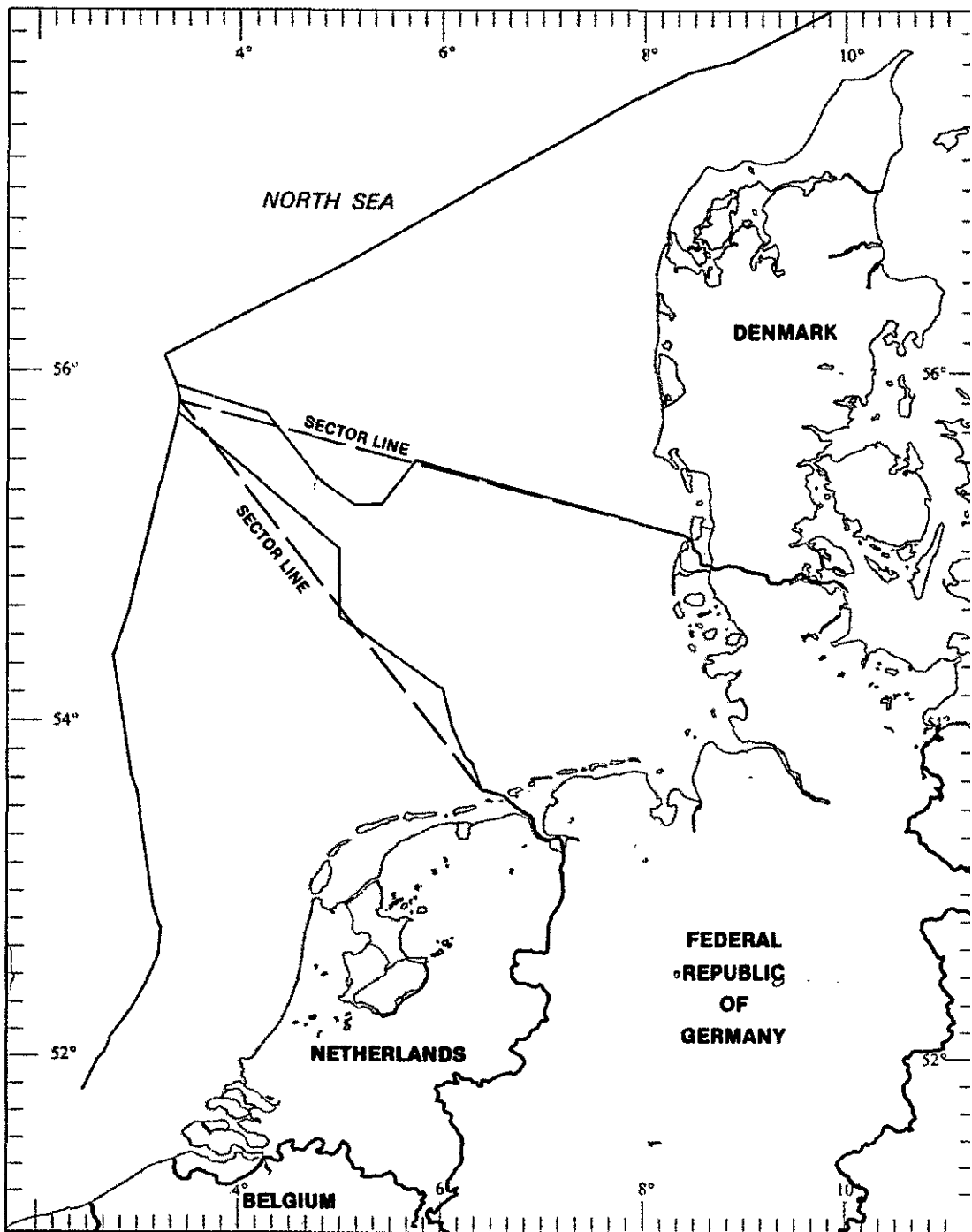




**EQUIDISTANT -LINE SEGMENT IN THE GULF OF MAINE, DRAWN BY ANALOGY TO THE AGREED NORTH SEA CONTINENTAL SHELF BOUNDARIES**

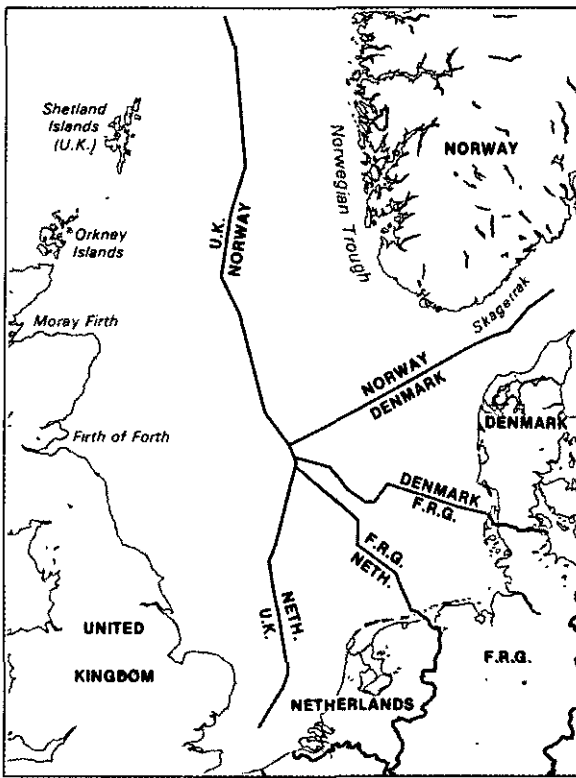
In the North Sea, the distance from the coast of the last equidistant point on the Federal Republic-Denmark boundary is 15.1% of the distance from the coast to the end-point of the boundary. For the Federal Republic-Netherlands boundary, the comparable proportion is 22.6%.

The length of the equidistant line pictured here was determined by analogy to these agreed North Sea boundaries. The distance of the indicated parts are 15.1% and 22.6%, respectively, of the distance from the international boundary terminus to the point on the equidistant line that is 200 nautical miles from the United States and Canada.

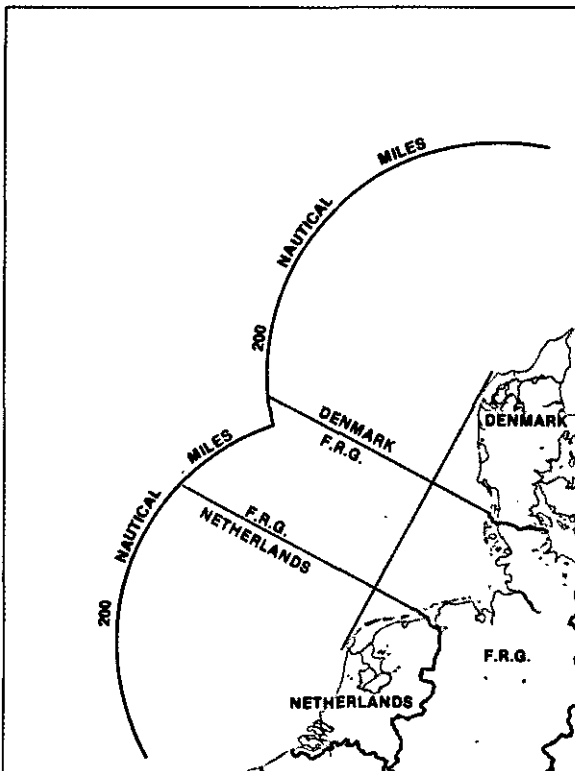


**AGREED NORTH SEA CONTINENTAL SHELF BOUNDARIES AS COMPARED TO THE SECTOR LINES PROPOSED BY THE FEDERAL REPUBLIC OF GERMANY**

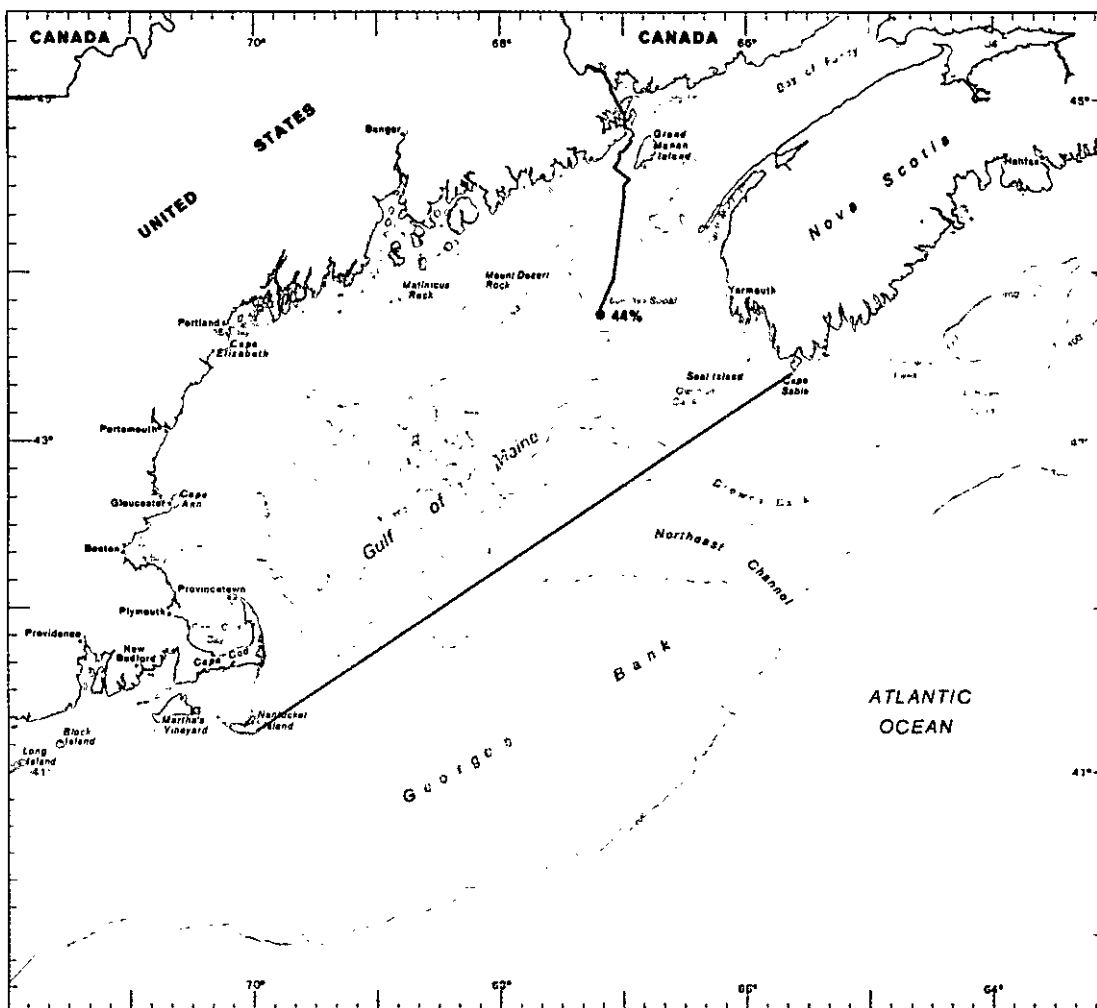
The red lines depict the continental shelf boundaries established by agreements between the States concerned. The black, dashed lines represent the sector lines that had been proposed boundaries by the Federal Republic of Germany, *I.C.J. Pleadings, North Sea Continental Shelf*, Vol. I, p. 85, Figure 21.



**A. AGREED NORTH SEA CONTINENTAL SHELF BOUNDARIES**



**B. HYPOTHETICAL NORTH SEA CONTINENTAL SHELF BOUNDARIES IF THE NORTH SEA WERE AN OPEN OCEAN**

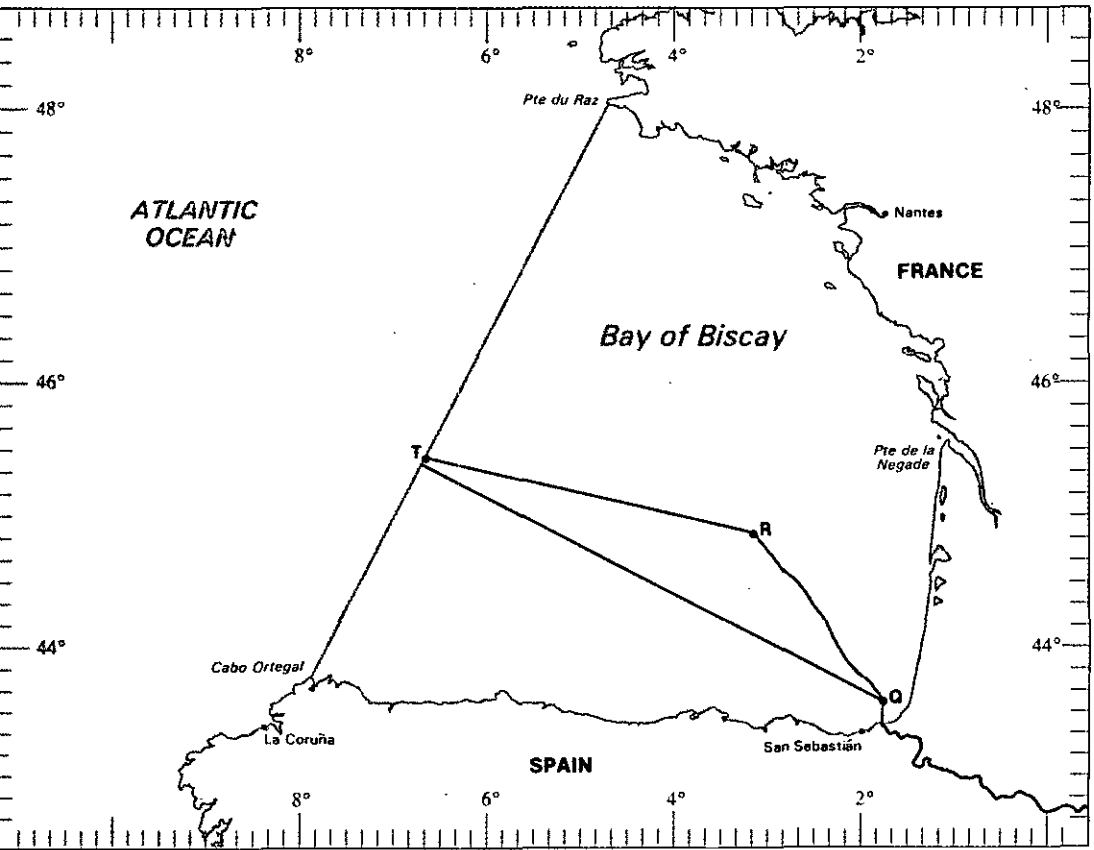


**EQUIDISTANT-LINE SEGMENT IN THE GULF OF MAINE, DRAWN BY ANALOGY TO THE AGREED BAY OF BISCAY BOUNDARY**

*In the Bay of Biscay, the distance from the land boundary to the last equidistant point on the agreed continental shelf boundary is 44% of the distance from the land boundary to the point where an equidistant line crosses the closing line.*

The length of the equidistant line pictured here was determined by analogy to the agreed Bay of Biscay boundary. The distance of the endpoint of the line to the international boundary terminus is 44% of the distance from the international boundary terminus to the point where the equidistant line crosses the Nantucket Island—Cape Sable closing line.

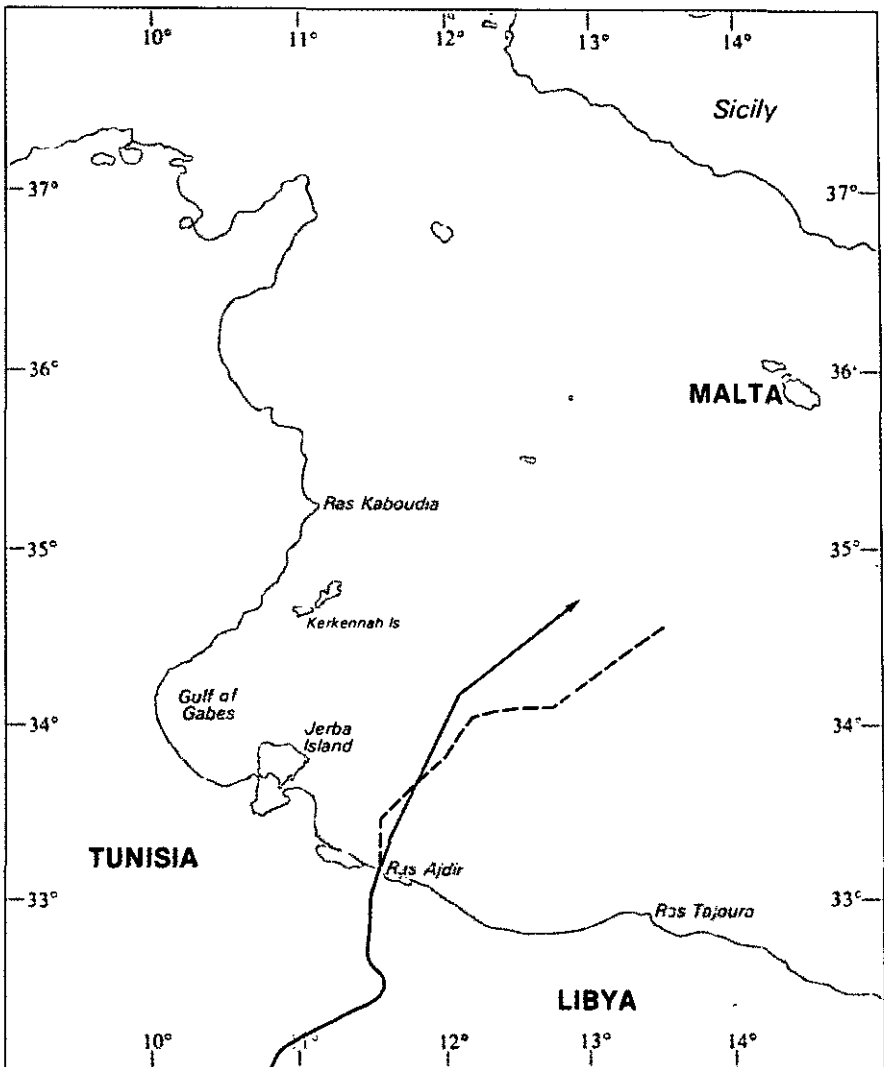
Figure 39



**AGREED BAY OF BISCAY CONTINENTAL SHELF BOUNDARY AS COMPARED TO A LINE DRAWN PERPENDICULAR FROM POINT Q TO THE CLOSING LINE**

The black line begins at the start of the continental shelf boundary (Point Q) and is perpendicular to the closing line.

Figure 40

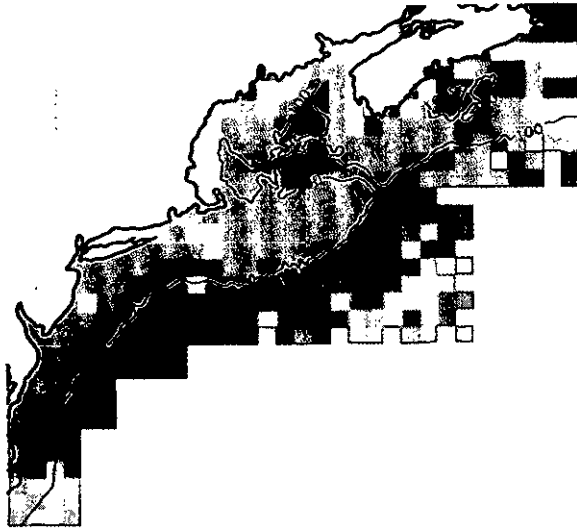


**TUNISIA/LIBYA CONTINENTAL SHELF BOUNDARY AS COMPARED TO THE EQUIDISTANT LINE**

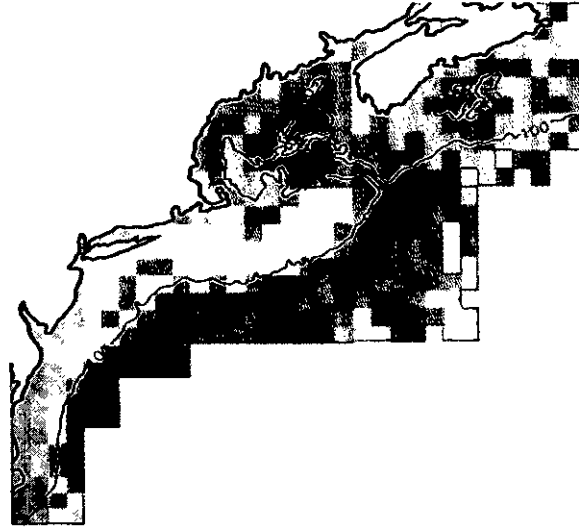
The red line represents the continental shelf boundary as described in *I.C.J. Reports 1982*, p. 90, map No. 3. The black, dashed line is the equidistant line.

## AVERAGE BOTTOM TEMPERATURES

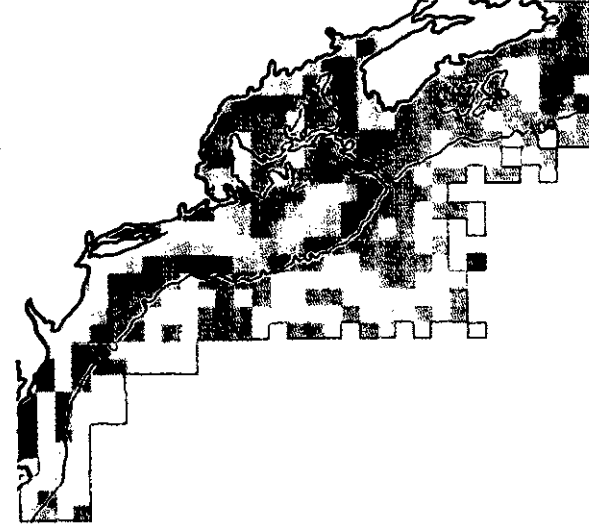
Figure 10



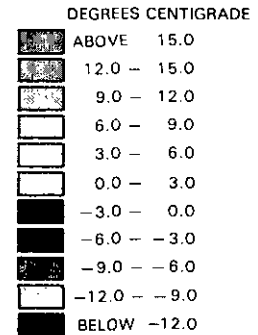
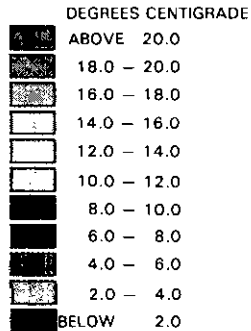
A. Cold season (Julian days 29 to 98)



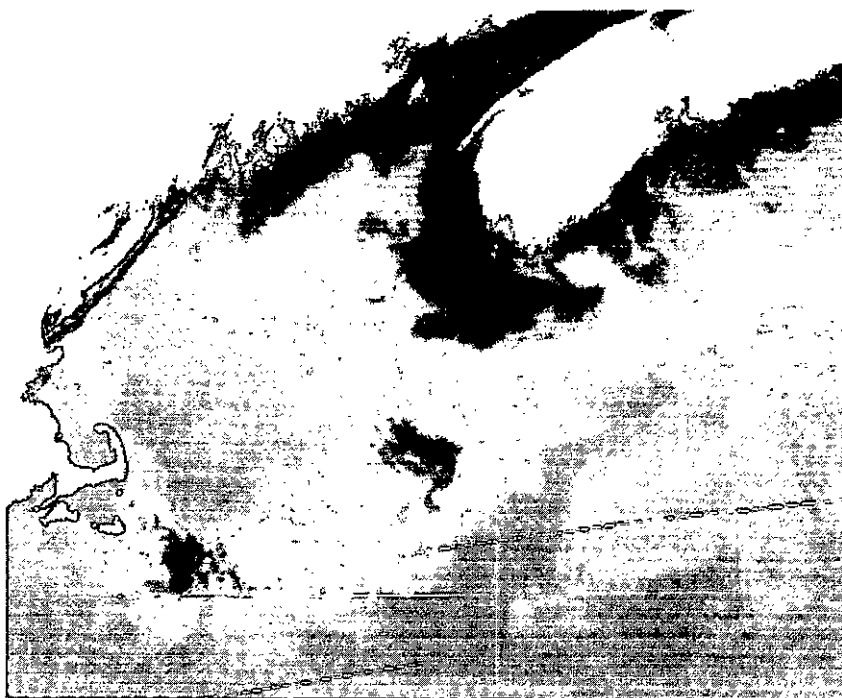
B. Warm season (Julian days 239 to 308)



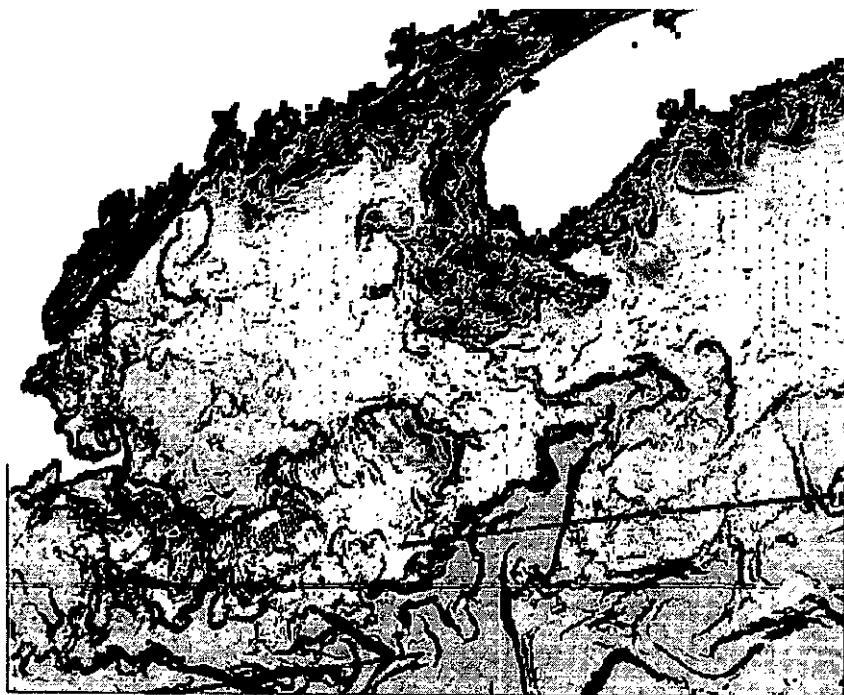
C. Difference between cold season and warm season bottom temperatures



# SURFACE TEMPERATURE AND TEMPERATURE GRADIENTS



**A. Surface temperatures — 14 June 1979**



**C. Surface temperatures with temperature gradients — 14 June 1979**





B. Temperature gradients — 14 June 1979

DEGREES CENTIGRADE

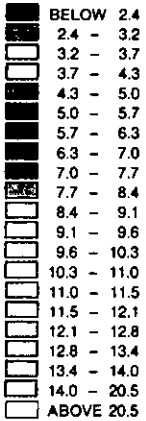


Figure 28

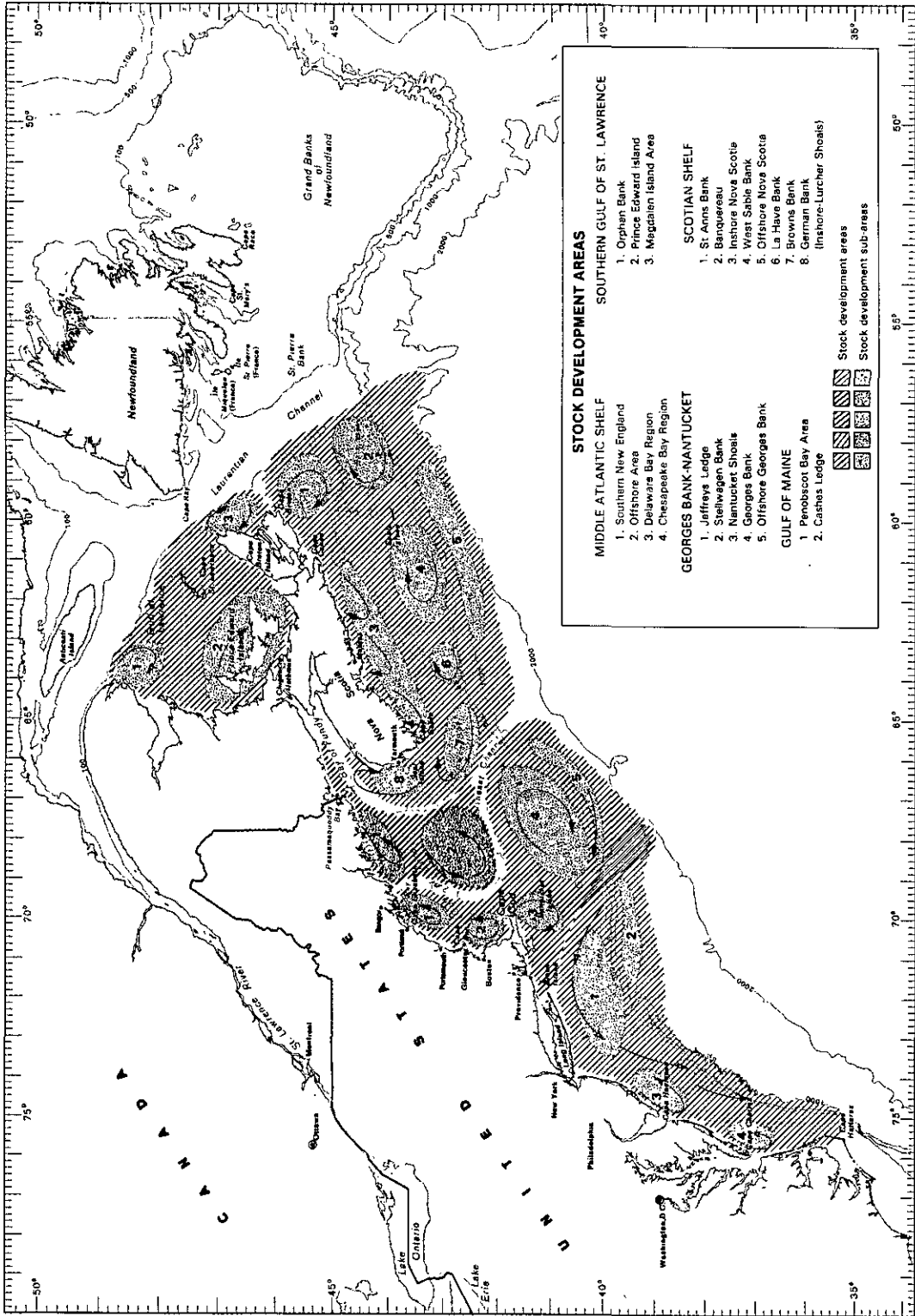
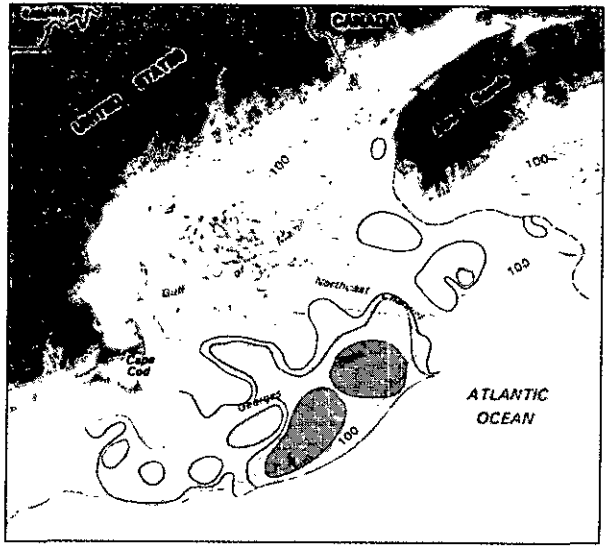
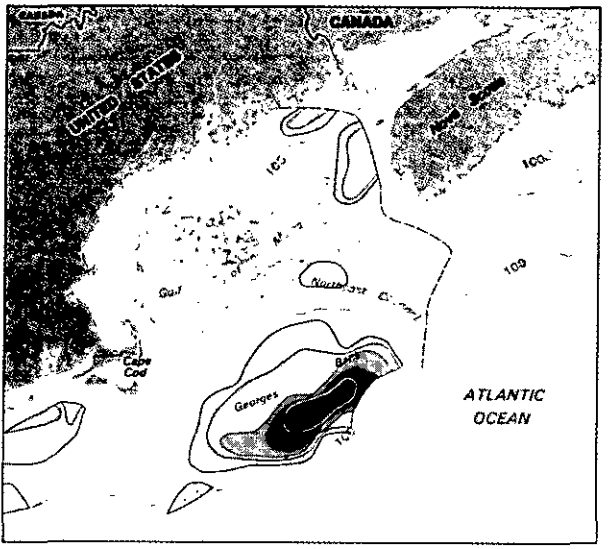


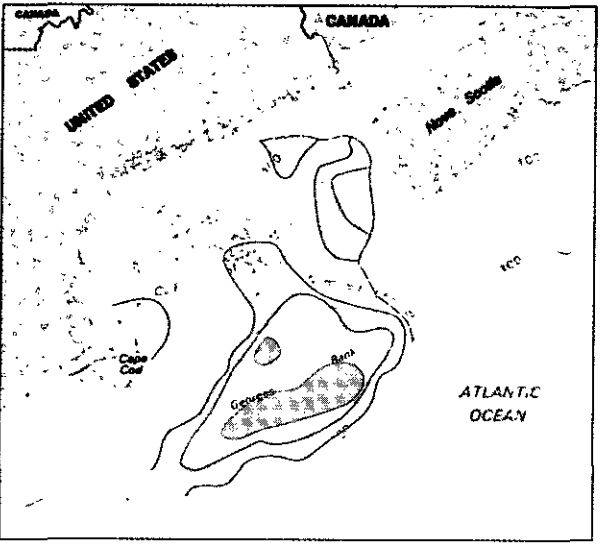
Figure 31



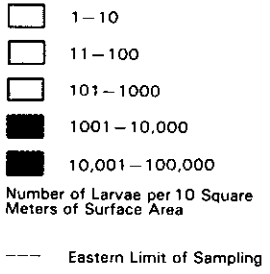
APRIL — MAY, 1974



APRIL — MAY, 1977



APRIL — MAY, 1980



DISTRIBUTION OF COD LARVAE

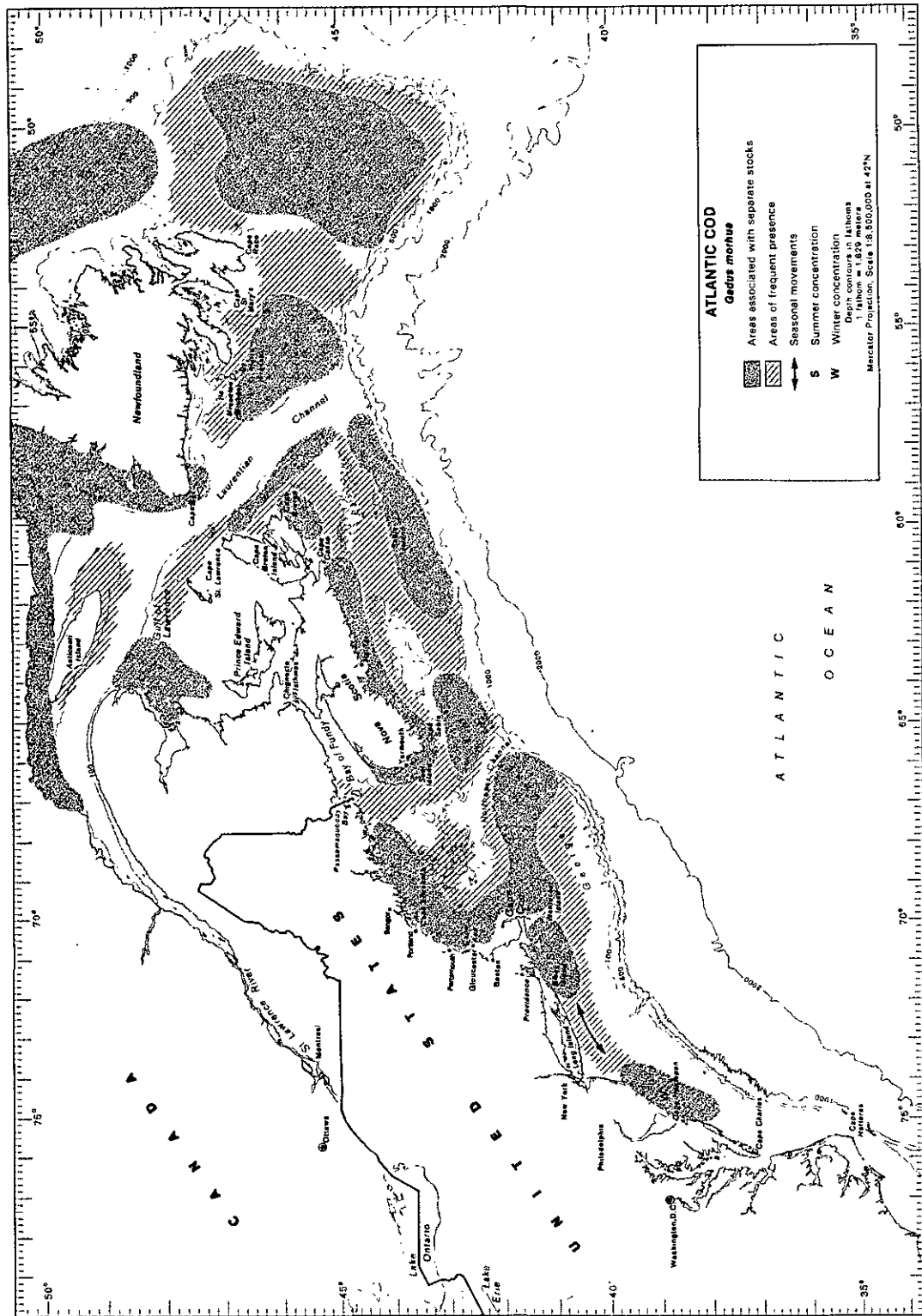
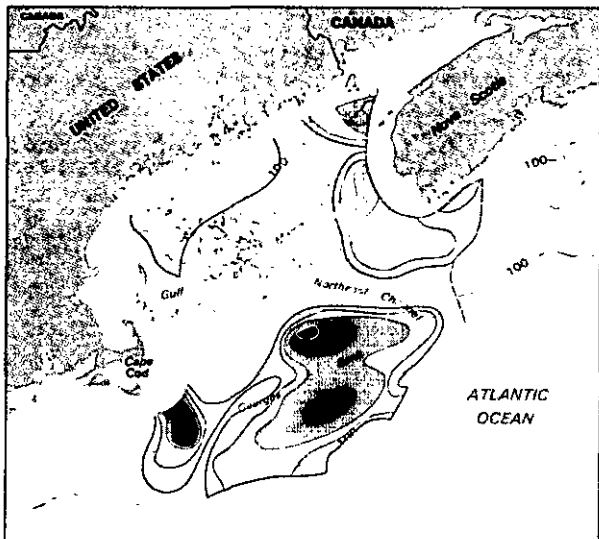
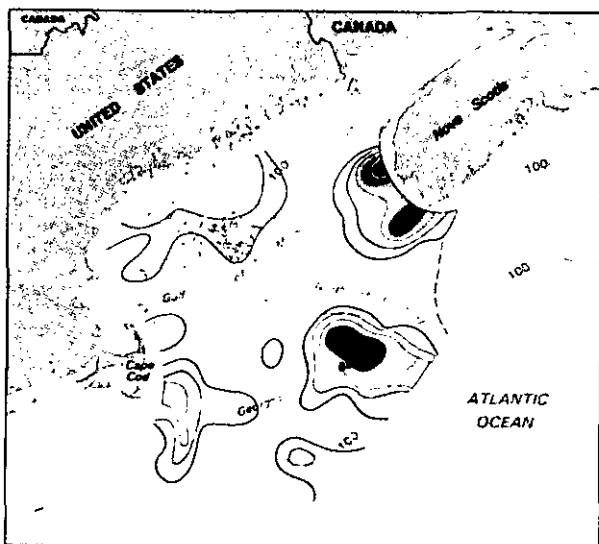


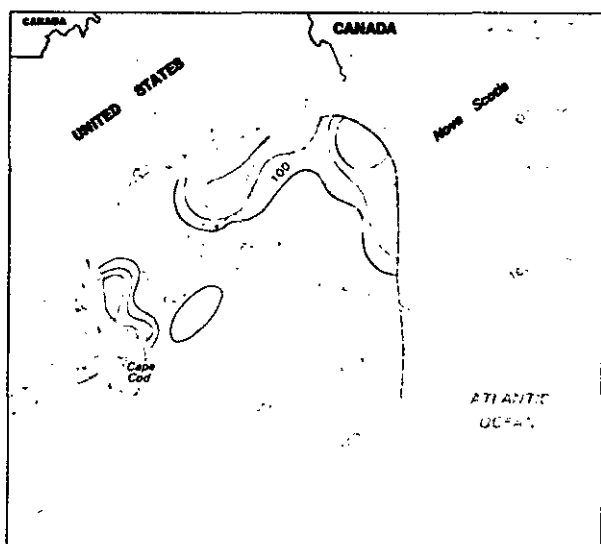
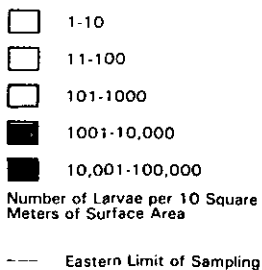
Figure 33



SEPTEMBER—OCTOBER, 1973



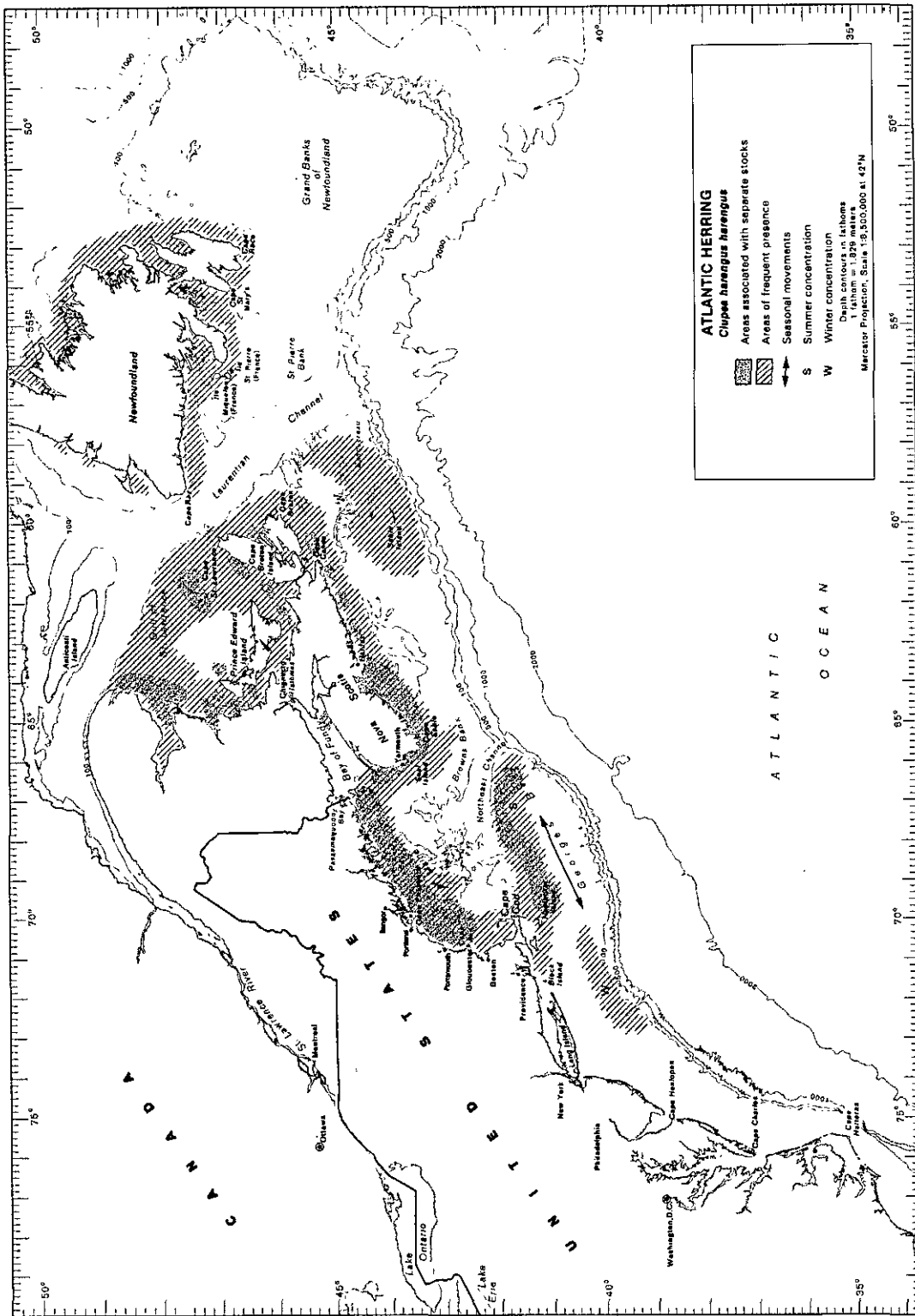
SEPTEMBER—OCTOBER, 1974



SEPTEMBER—OCTOBER, 1980

DISTRIBUTION OF HERRING LARVAE

Figure 35





**HADDOCK**  
*Melanogrammus aeglefinus*

Areas associated with separate stocks  
 Areas of frequent presence  
 Seasonal movements  
 Summer concentration  
 Winter concentration  
 Depth contour in fathoms  
 Contour interval 1000  
 Mercator Projection, Scale 1 : 2,500,000 at 42°N

Figure 38

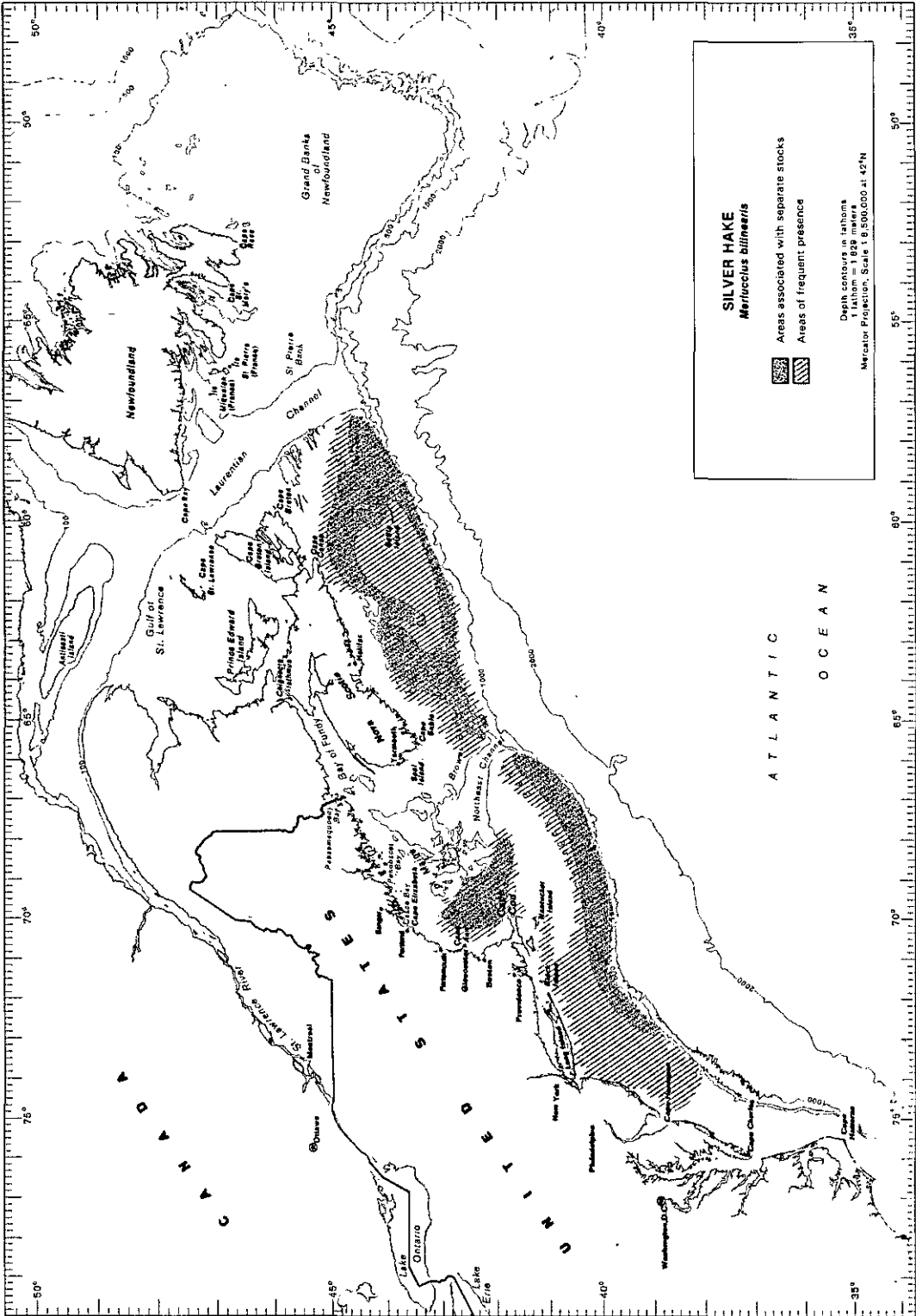
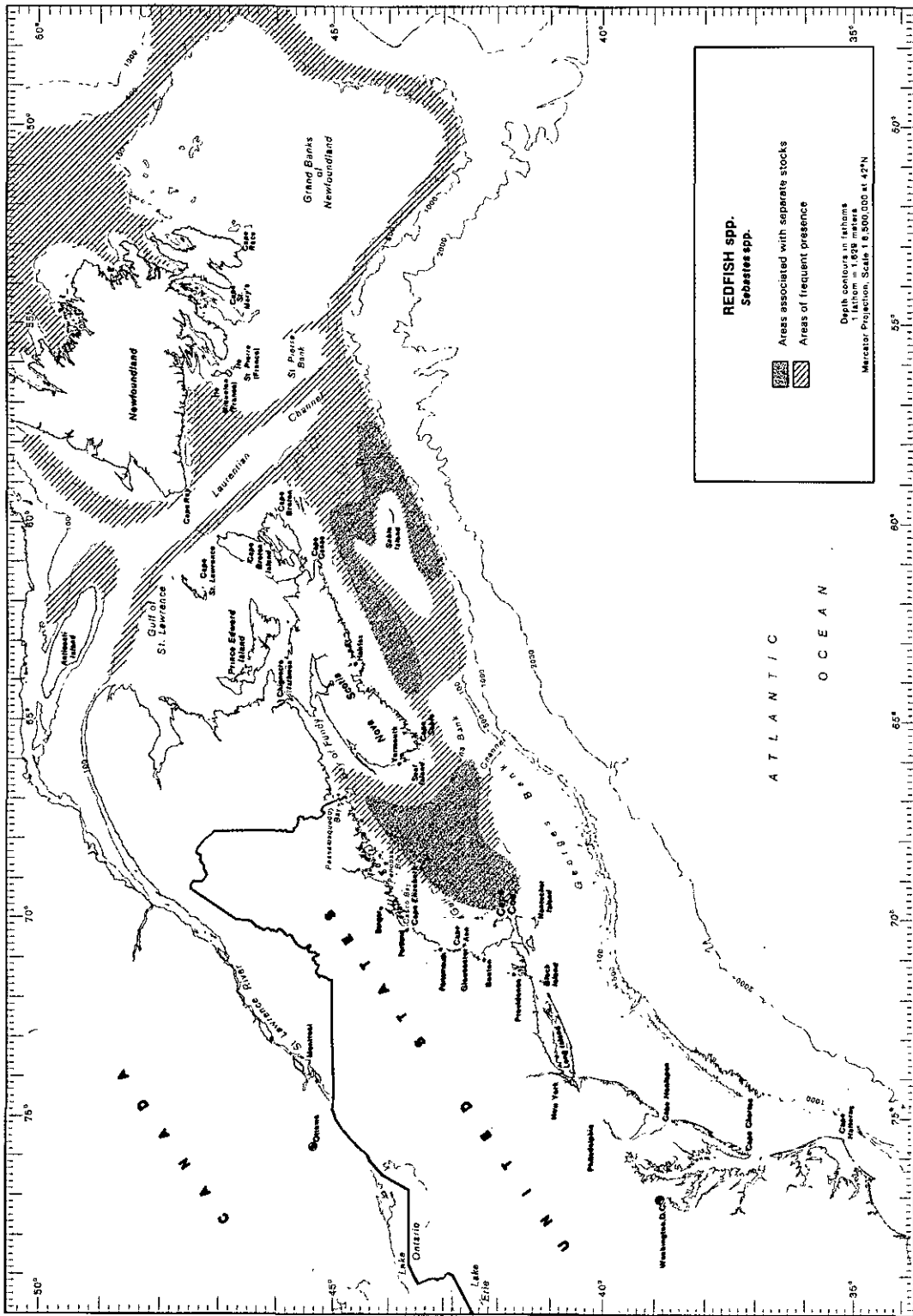








Figure 40



**REDFISH spp.**  
*Sebastes* spp.

 Areas associated with separate stocks  
 Areas of frequent presence

Depth contours in fathoms  
 1 fathom = 1.828 meters  
 Mercator Projection, Scale 1:8,500,000 at 42°N

ATLANTIC OCEAN

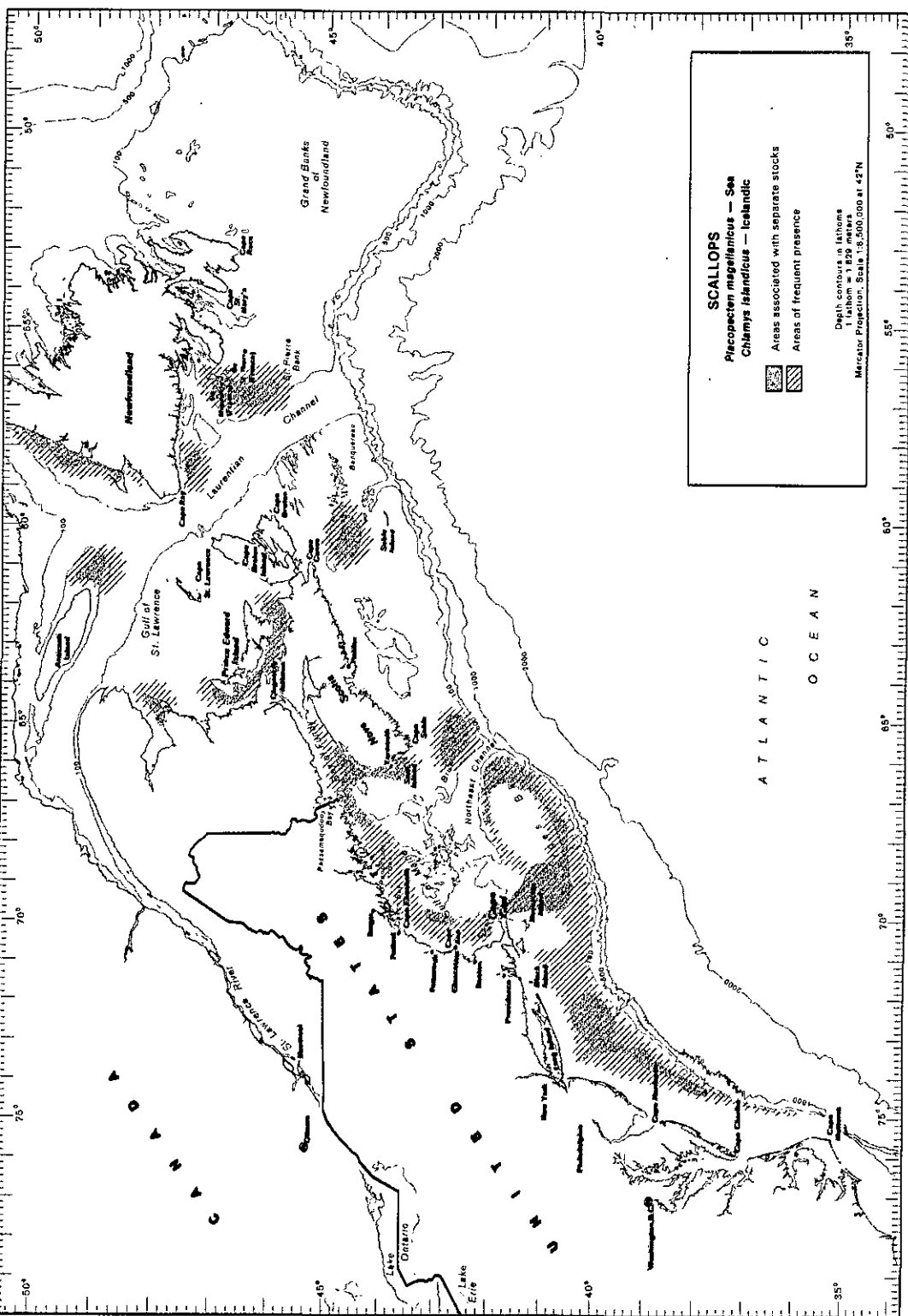
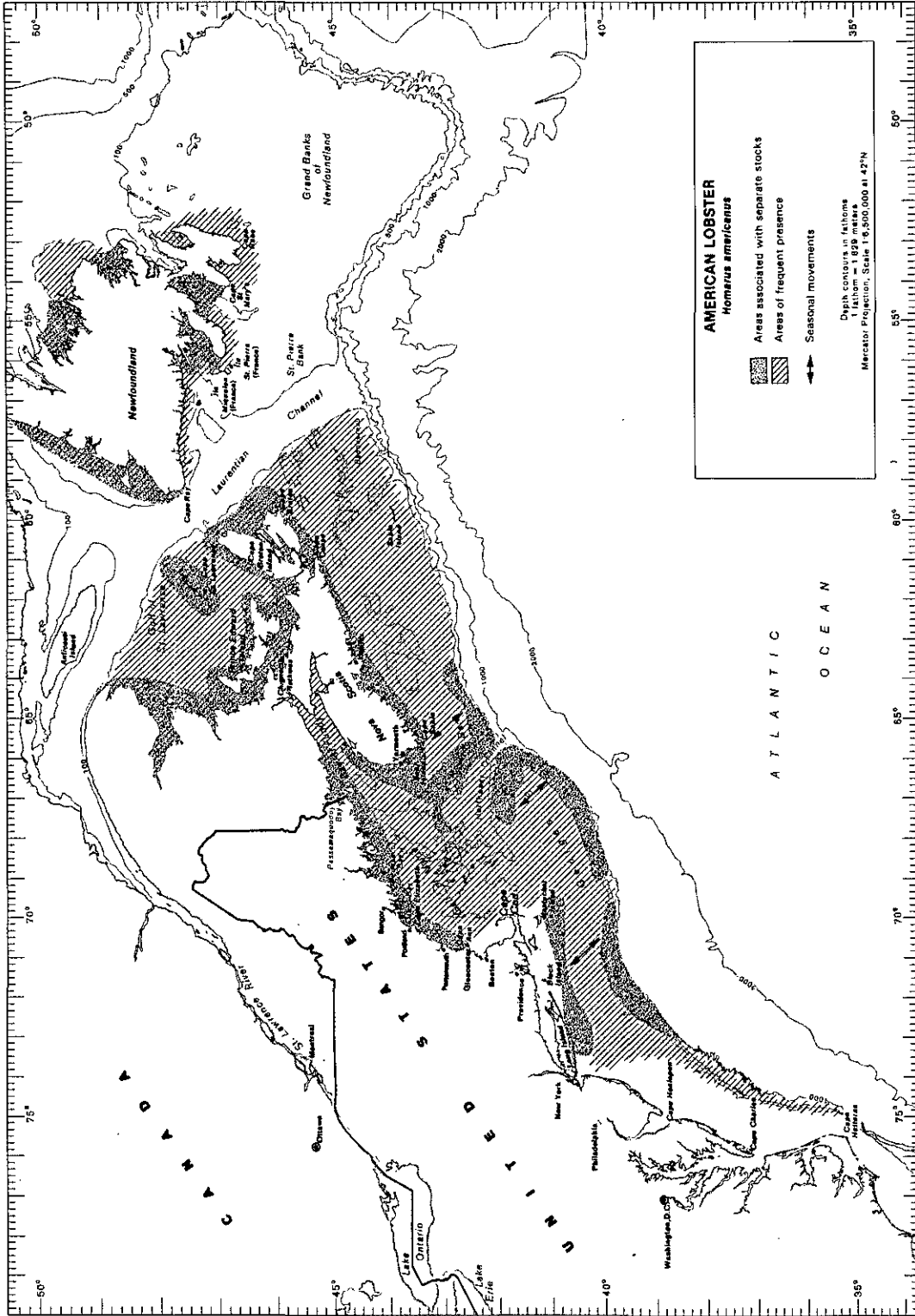
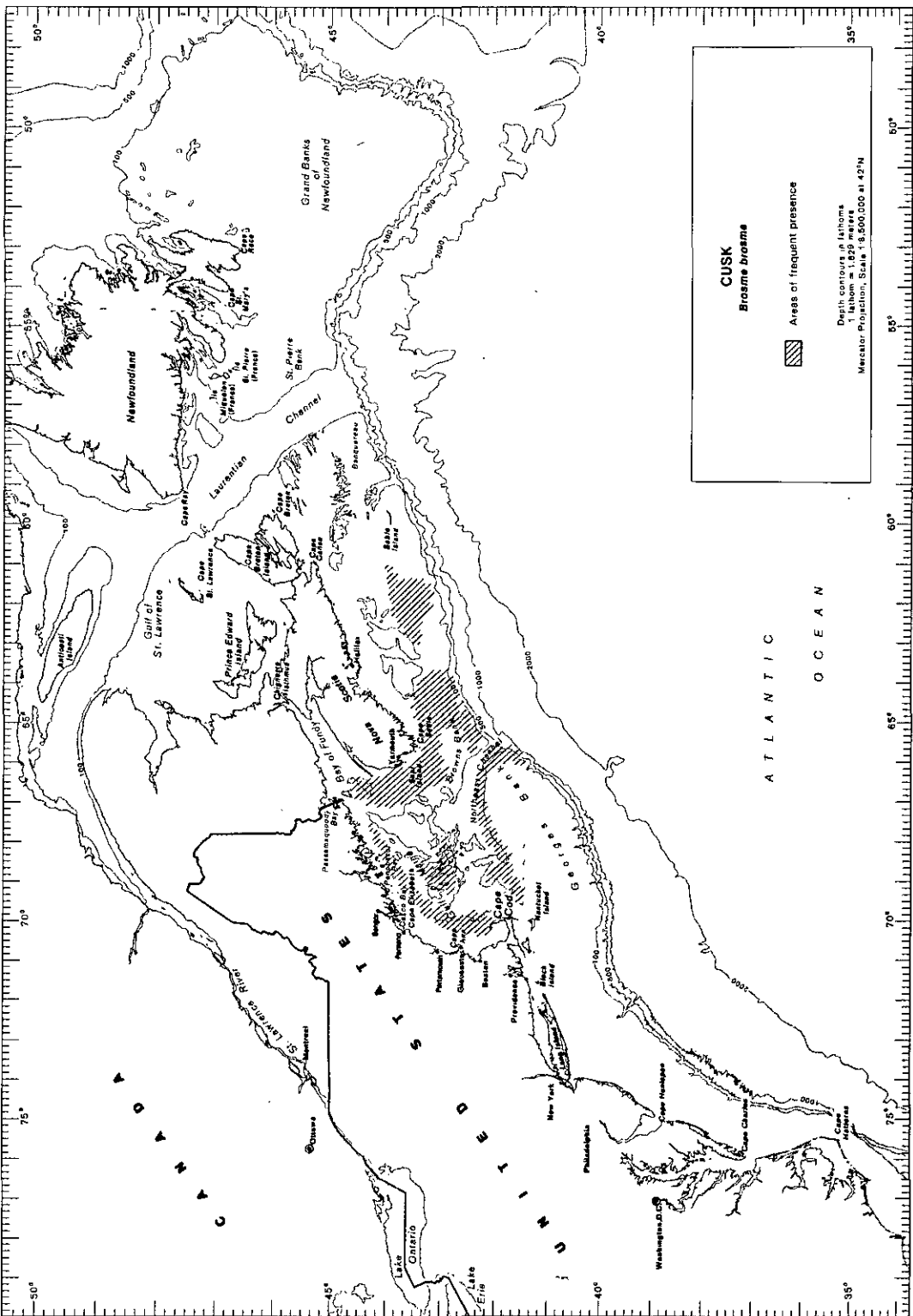


Figure 44





**CUSK**  
*Brosme brosme*

▨ Areas of frequent presence

Depth contours in fathoms  
1:250,000  
Mercator Projection, Scale 1:8,500,000 at 42°N

ATLANTIC OCEAN

Figure 46

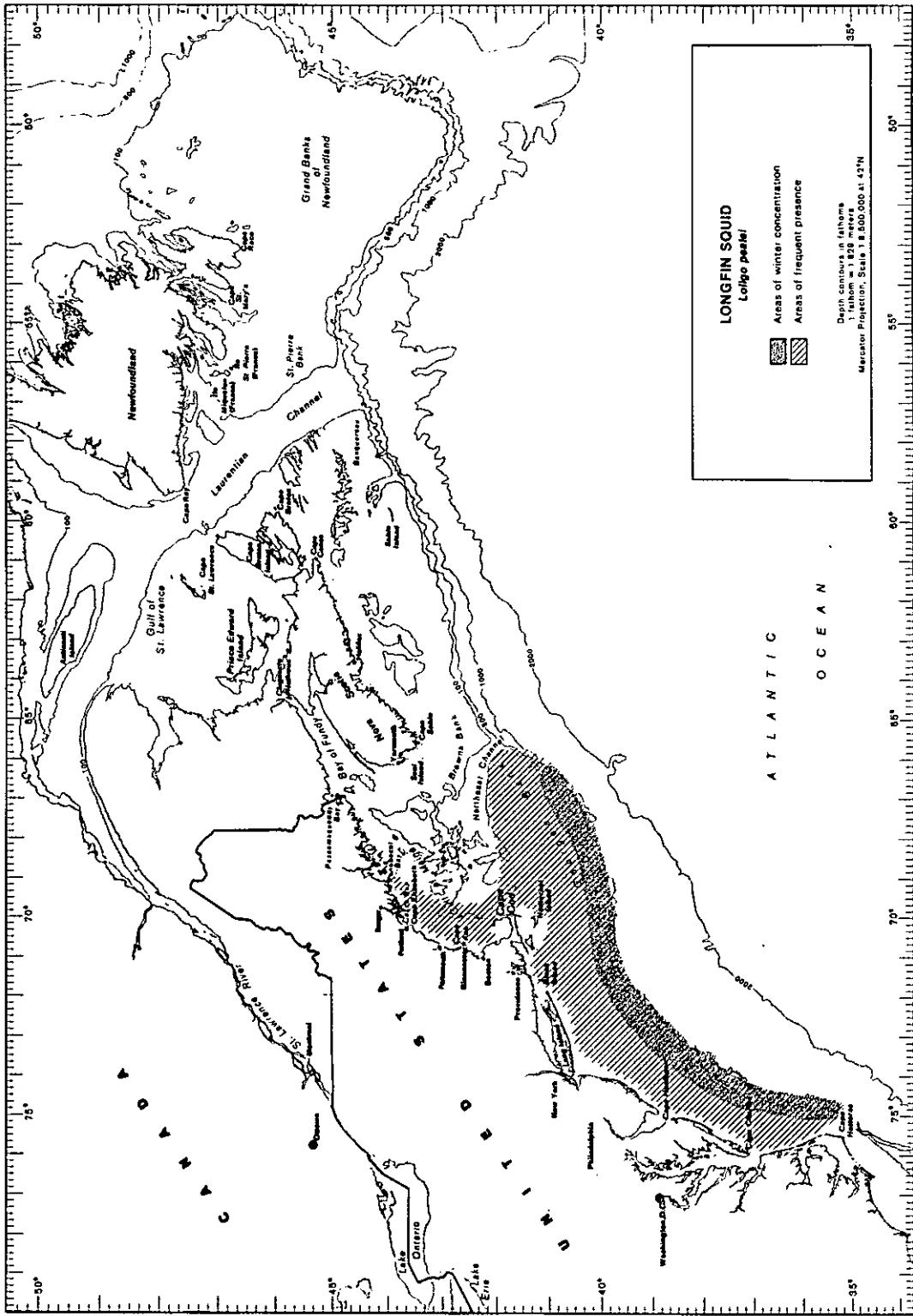
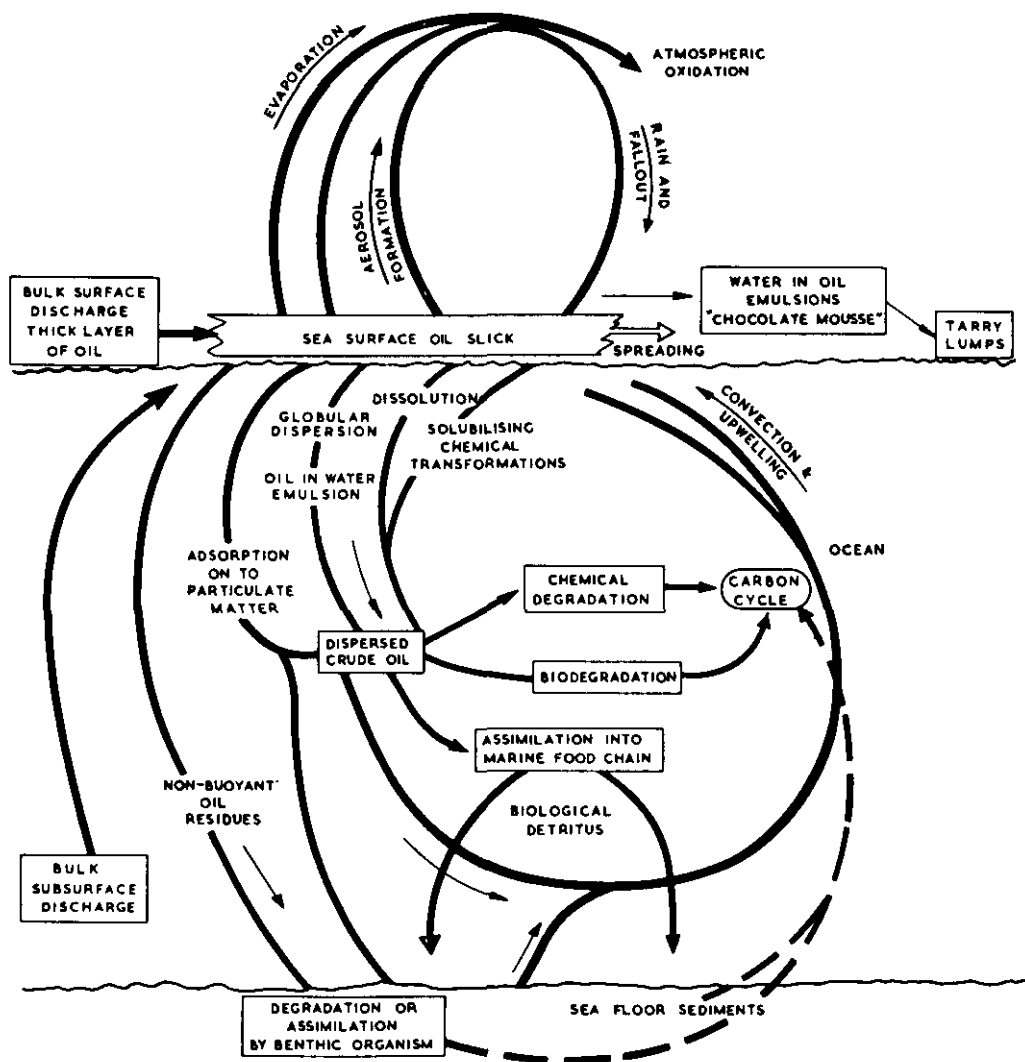
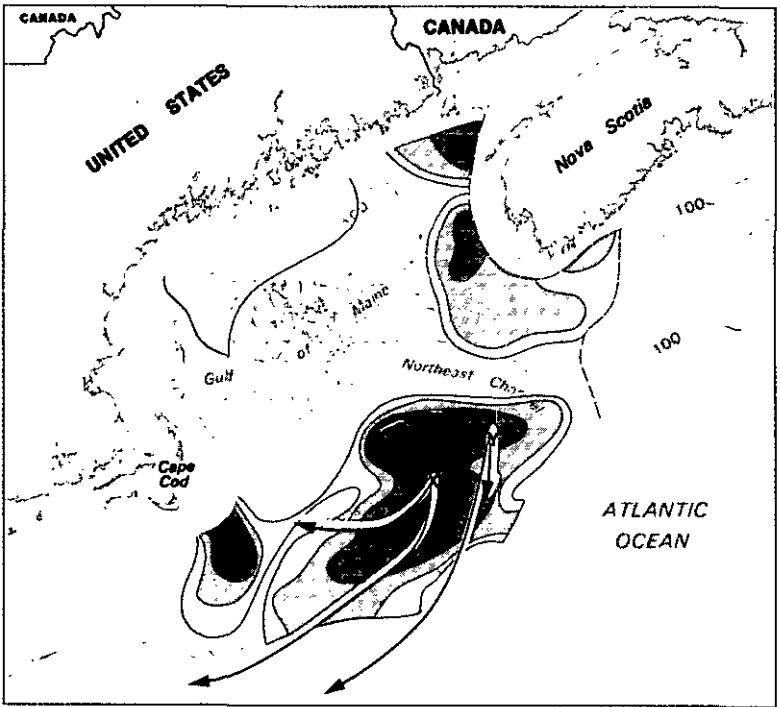


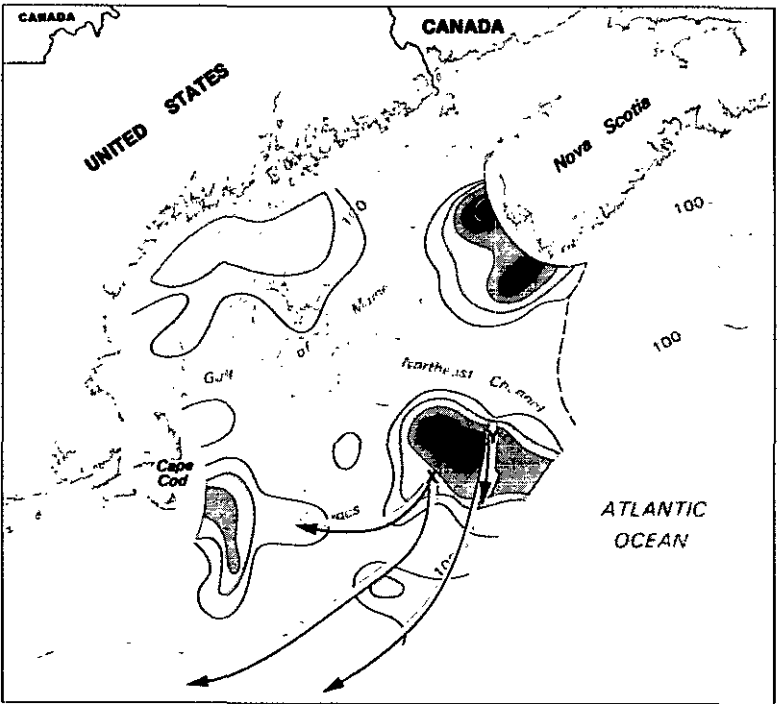
Figure 1



**PROCESSES INVOLVED IN THE FATE OF CRUDE OIL DISCHARGED INTO THE MARINE ENVIRONMENT**



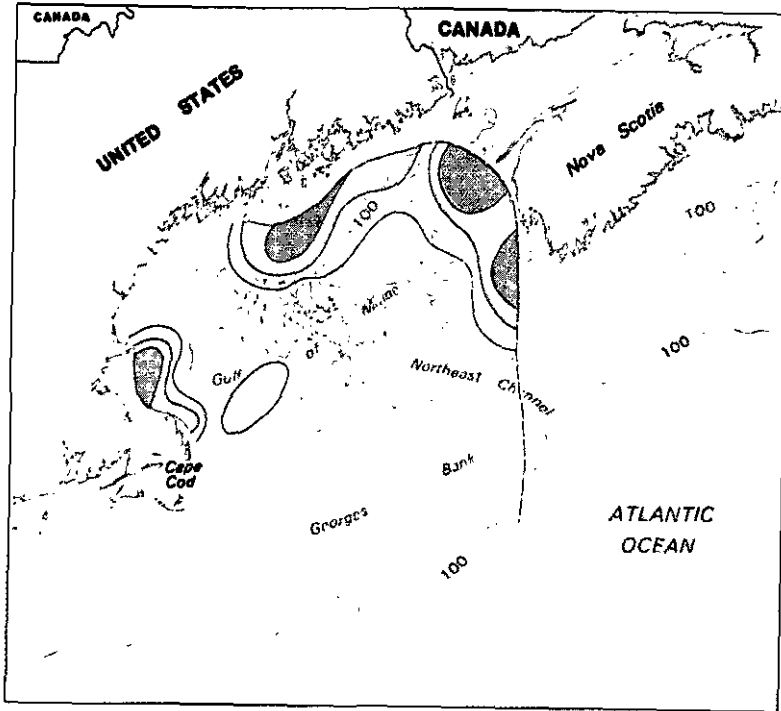
SEPTEMBER—OCTOBER, 1973



SEPTEMBER—OCTOBER, 1974

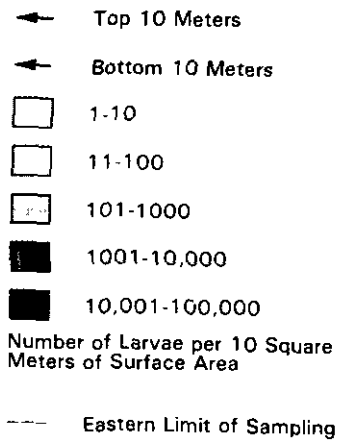


Figure 7

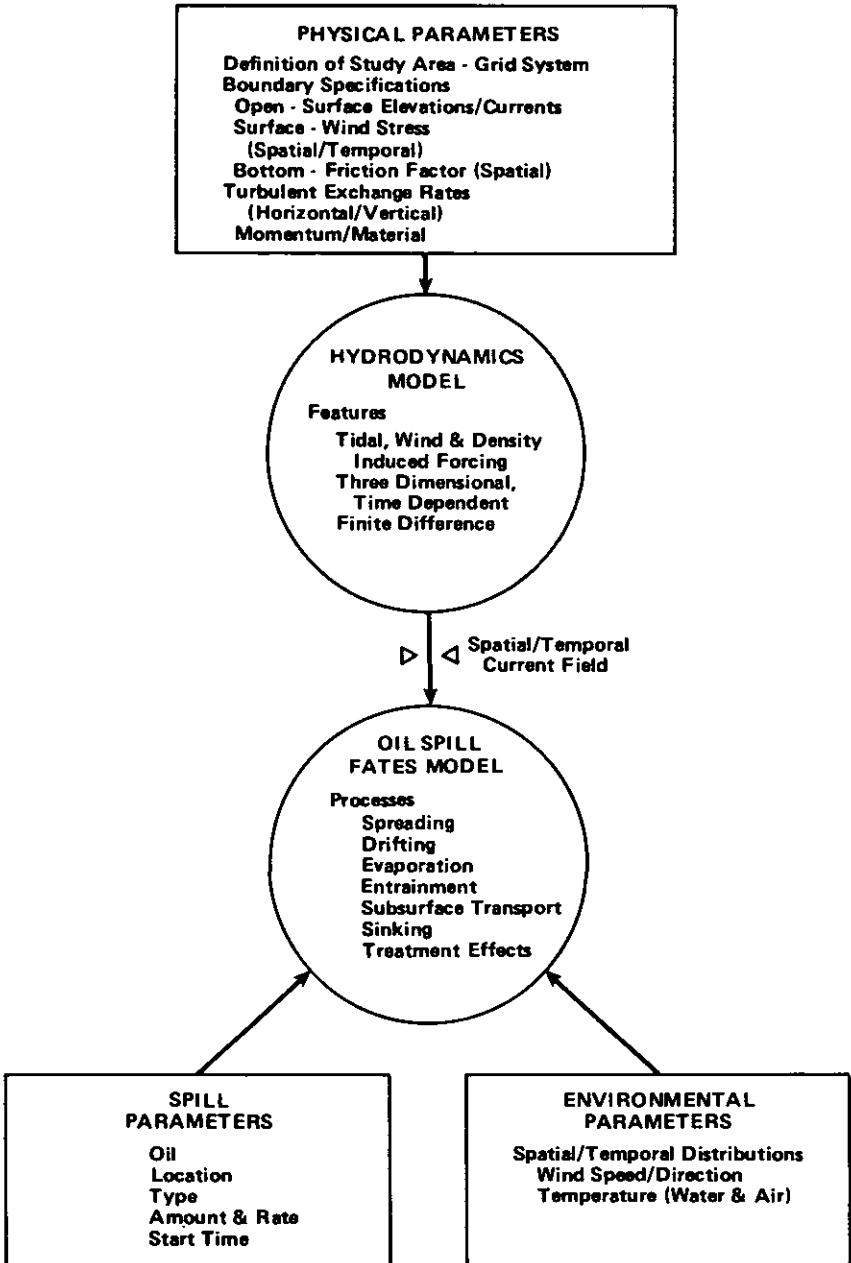


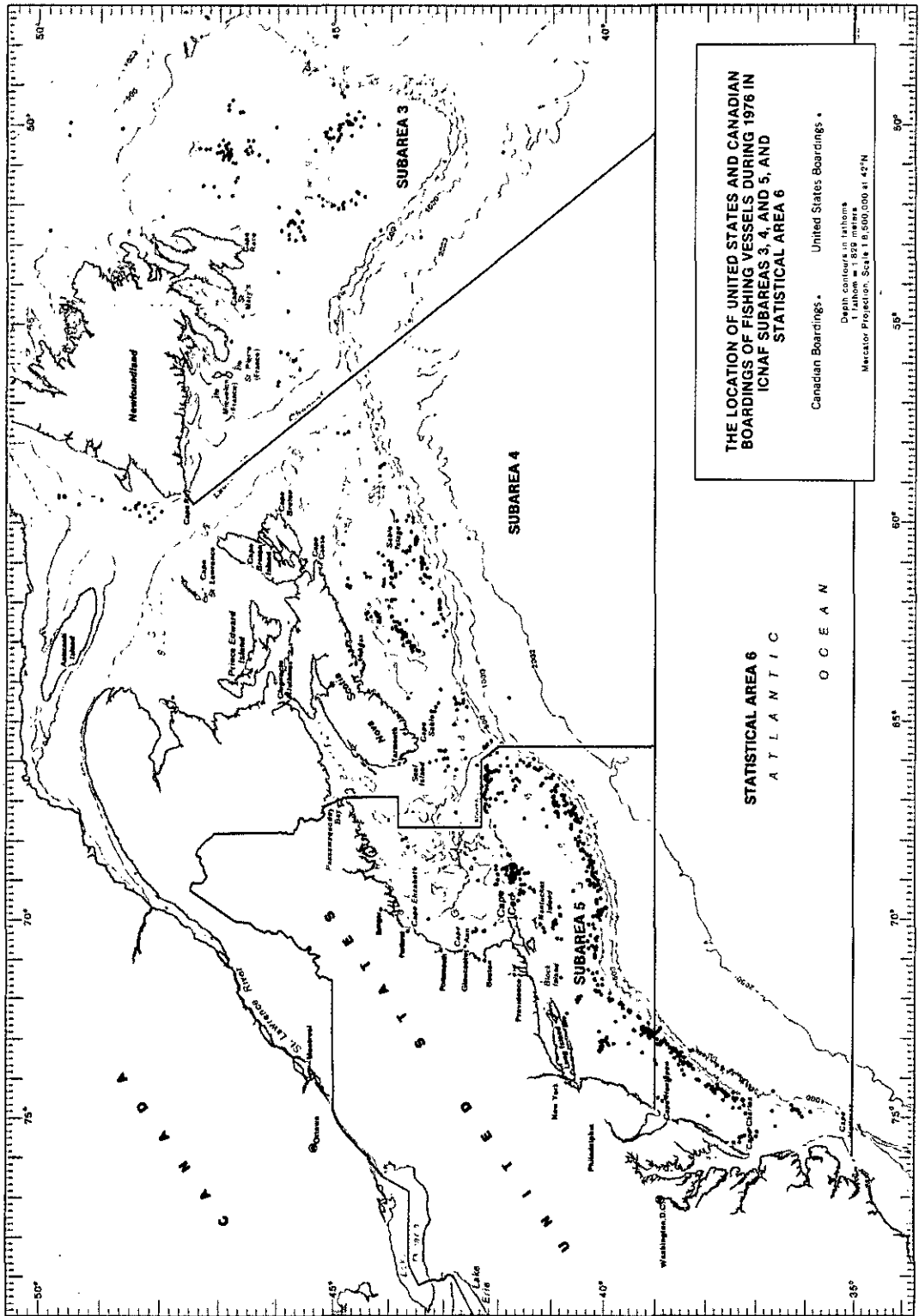
SEPTEMBER—OCTOBER, 1980

**DISTRIBUTIONS OF HERRING LARVAE OVERLAID  
WITH 90 DAY TRAJECTORIES OF OIL DISCHARGED  
ON GEORGES BANK AT POINTS X AND Y  
ON JULIAN DAY 213 (c. August 1)**



HYDRODYNAMICS AND OIL SPILL FATES COMPUTER MODELS





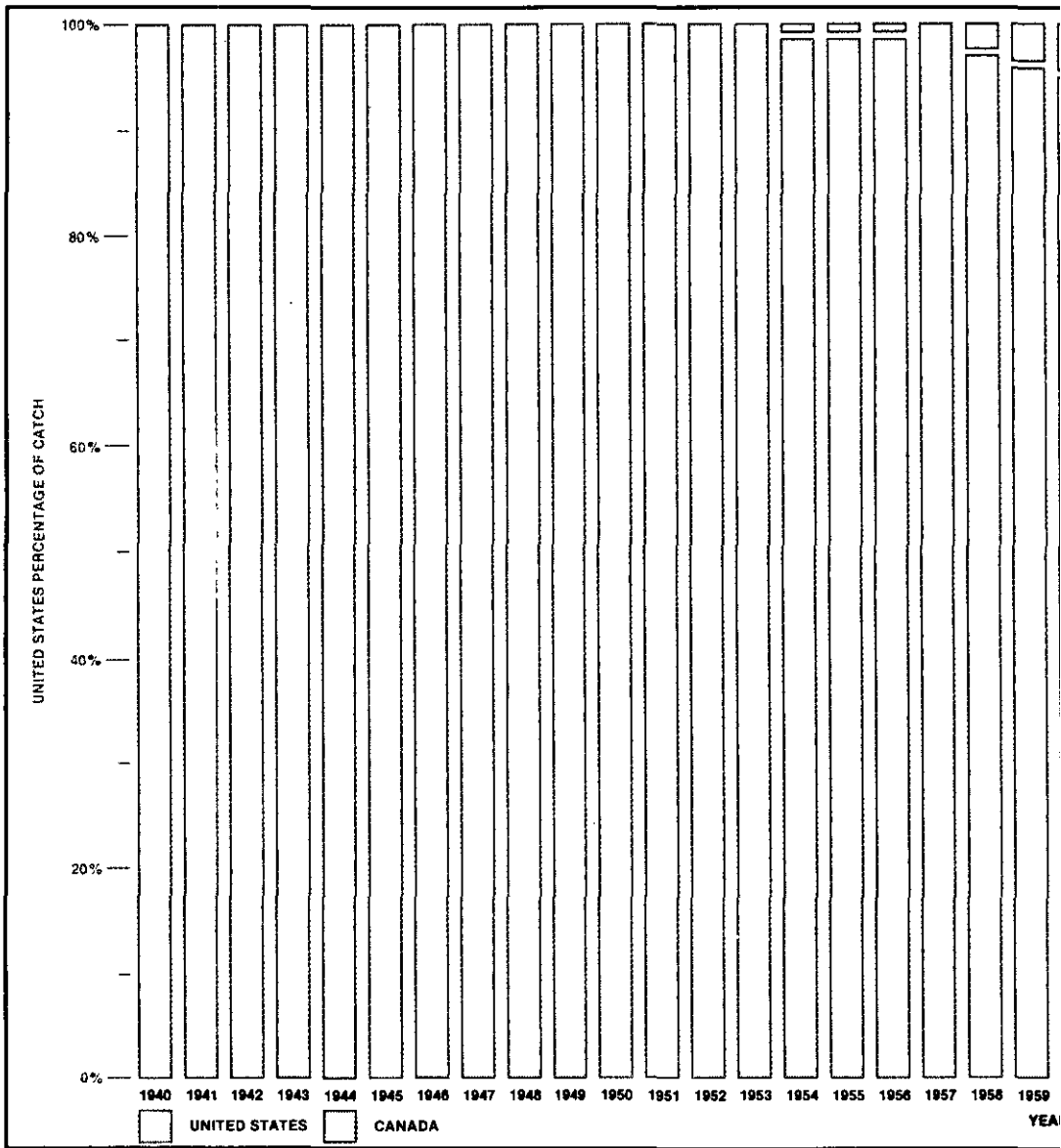
**THE LOCATION OF UNITED STATES AND CANADIAN BOARDINGS OF FISHING VESSELS DURING 1976 IN ICNAP SUBAREAS 3, 4, AND 5, AND STATISTICAL AREA 6**

Canadian Boardings • United States Boardings •

Depth contour in fathoms  
 Depth contour in meters

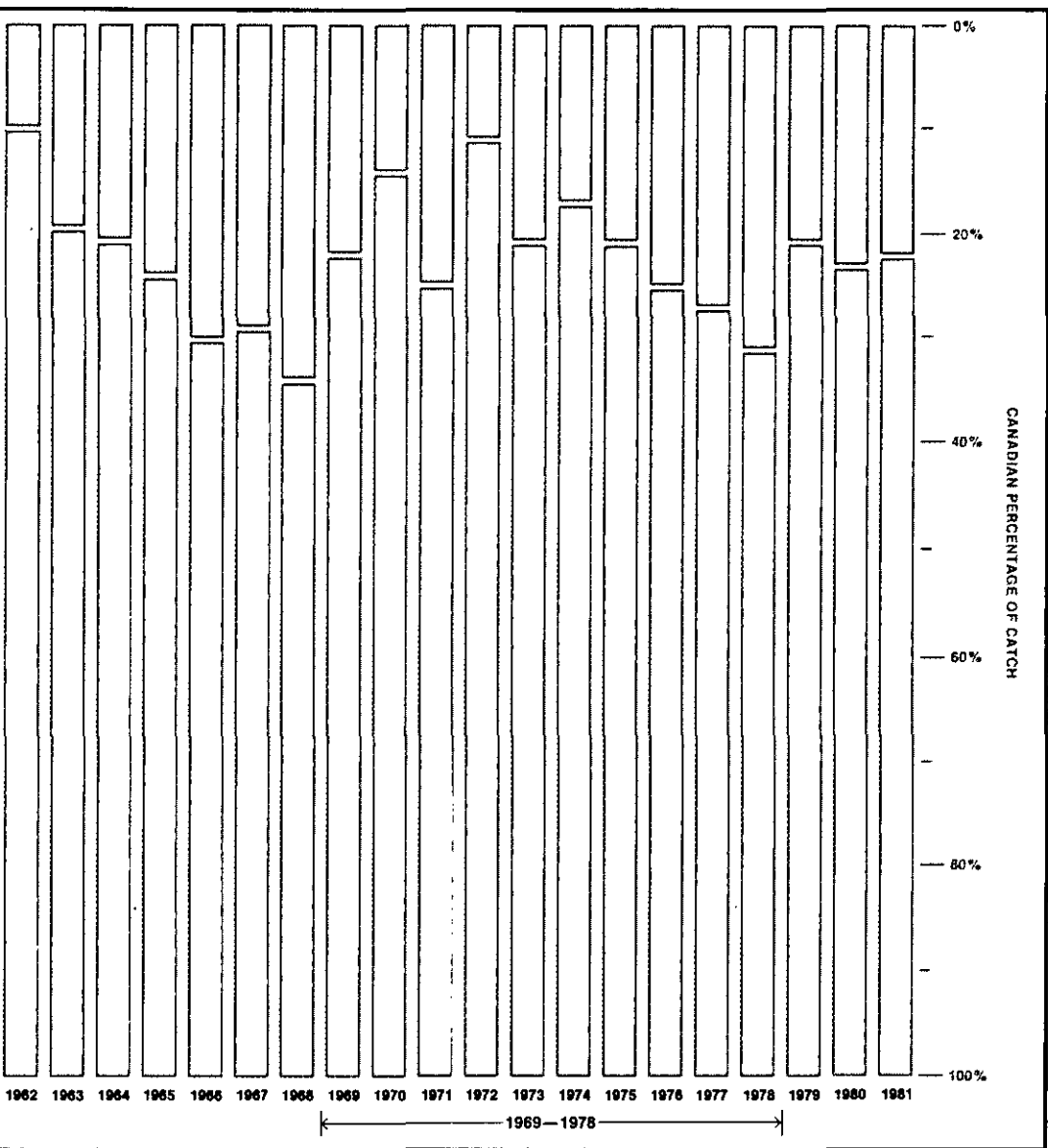
Mercator Projection, Scale 1:6,500,000 at 42°N

**STATISTICAL AREA 6**  
 ATLANTIC OCEAN

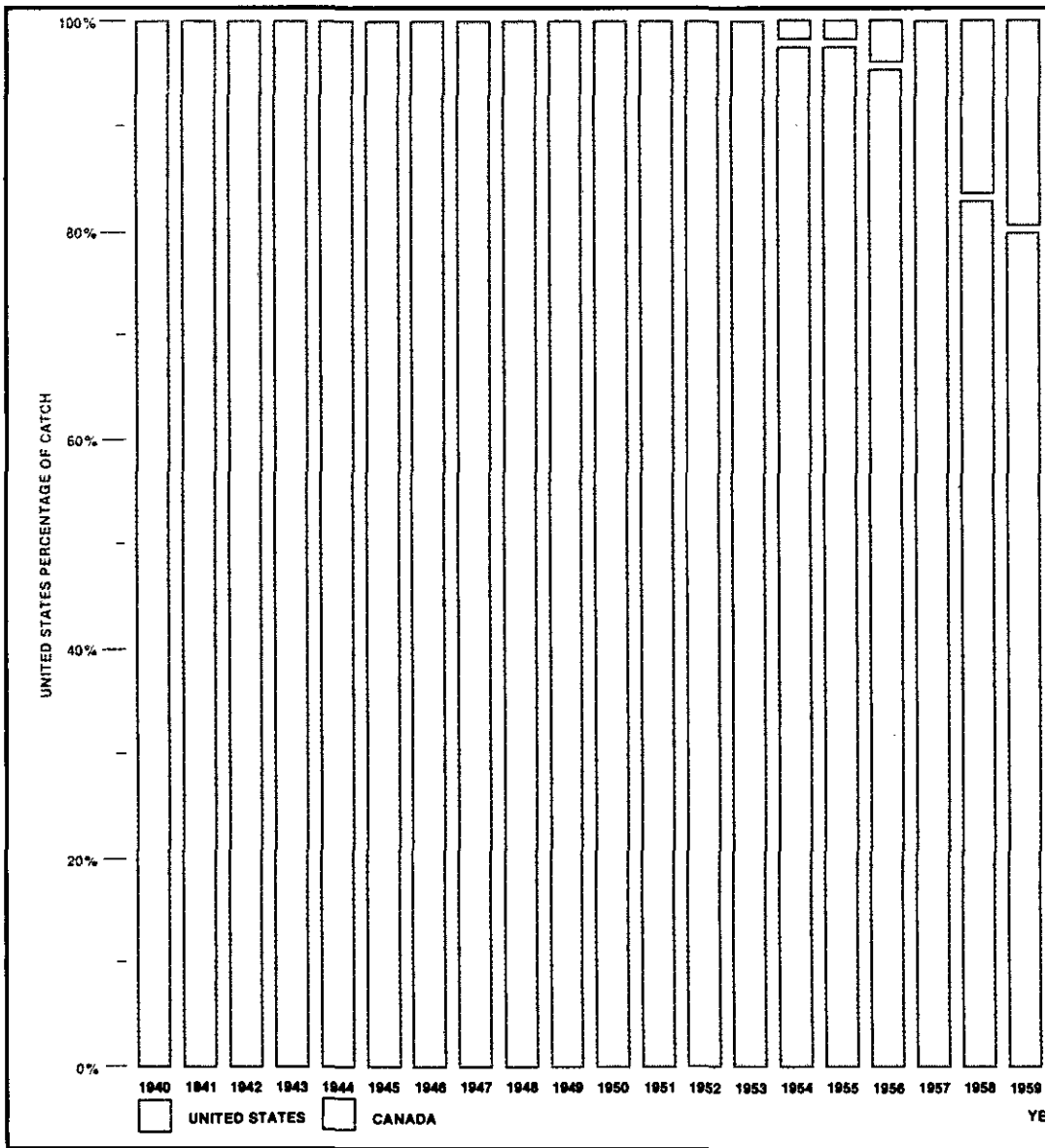


Source: Appendix E, Table 1

Figure 1

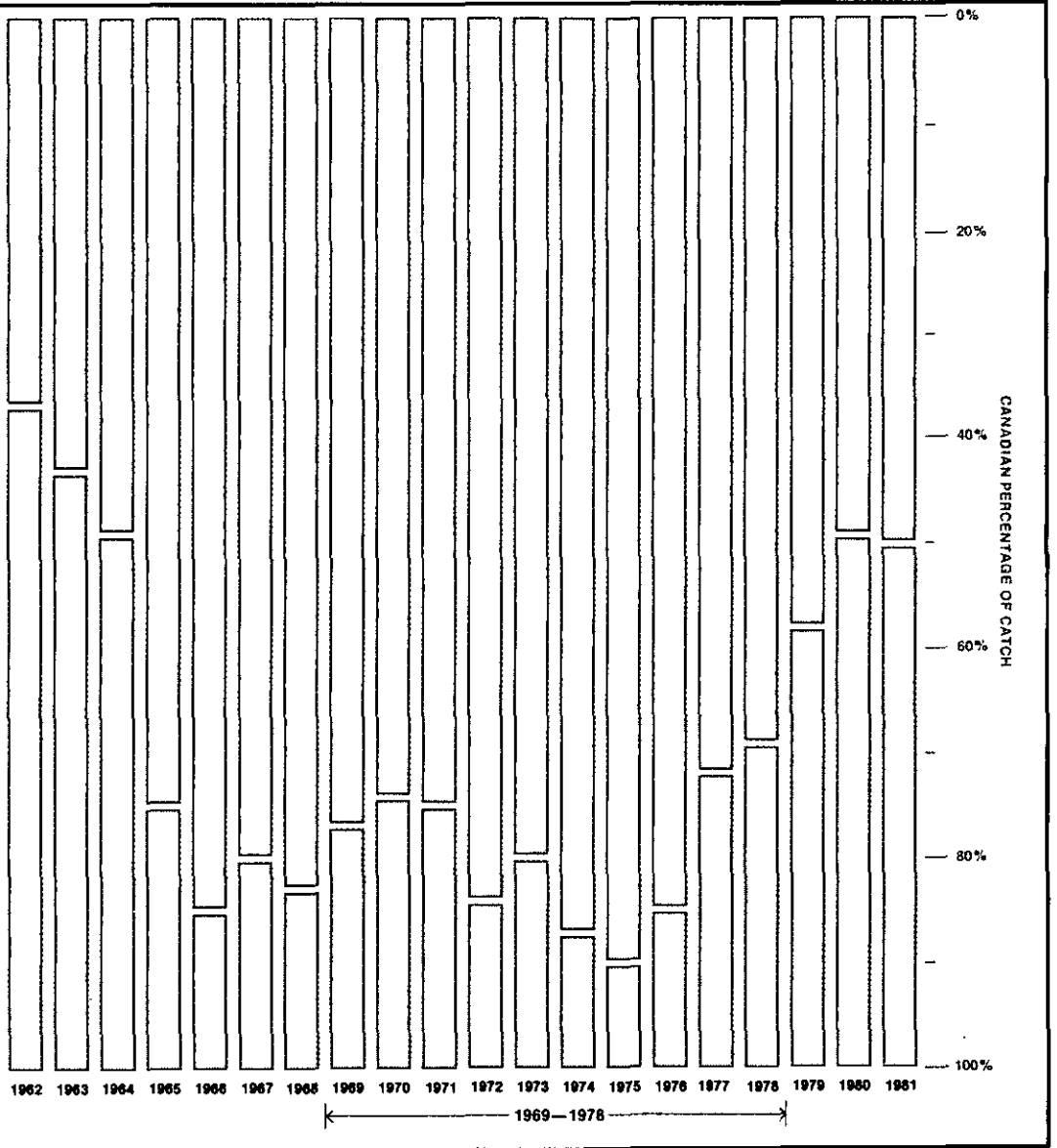


RELATIVE SHARES OF COMBINED UNITED STATES/CANADIAN TOTAL CATCH ON GEORGES BANK BY WEIGHT (1940-1981)



Source: Appendix E, Table 2

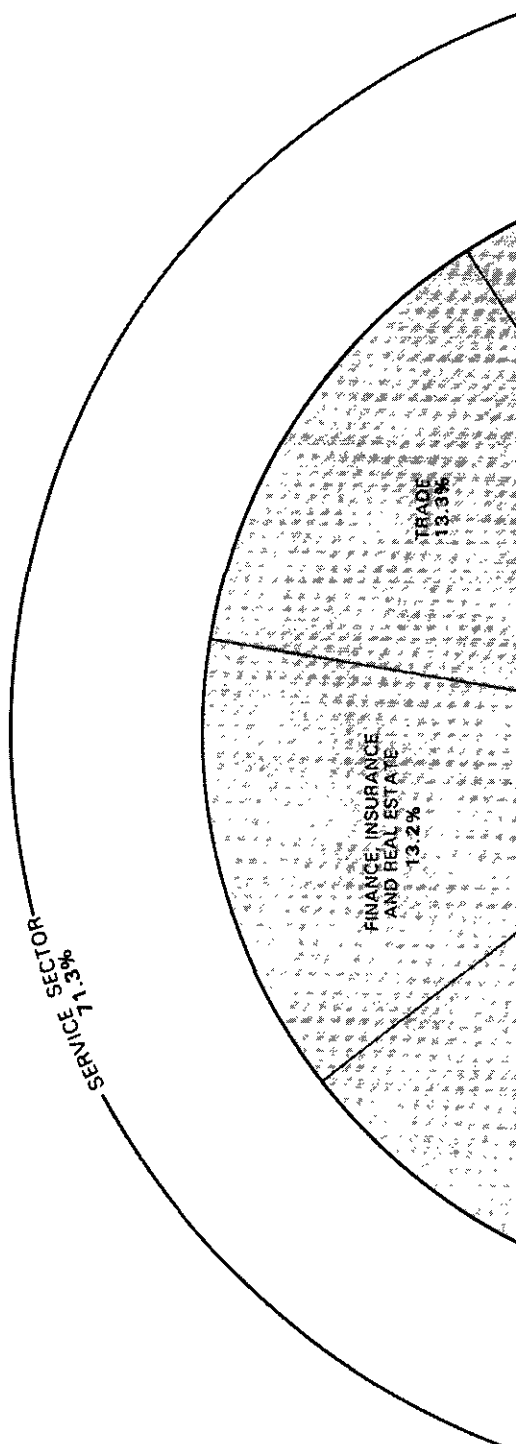
Figure 2



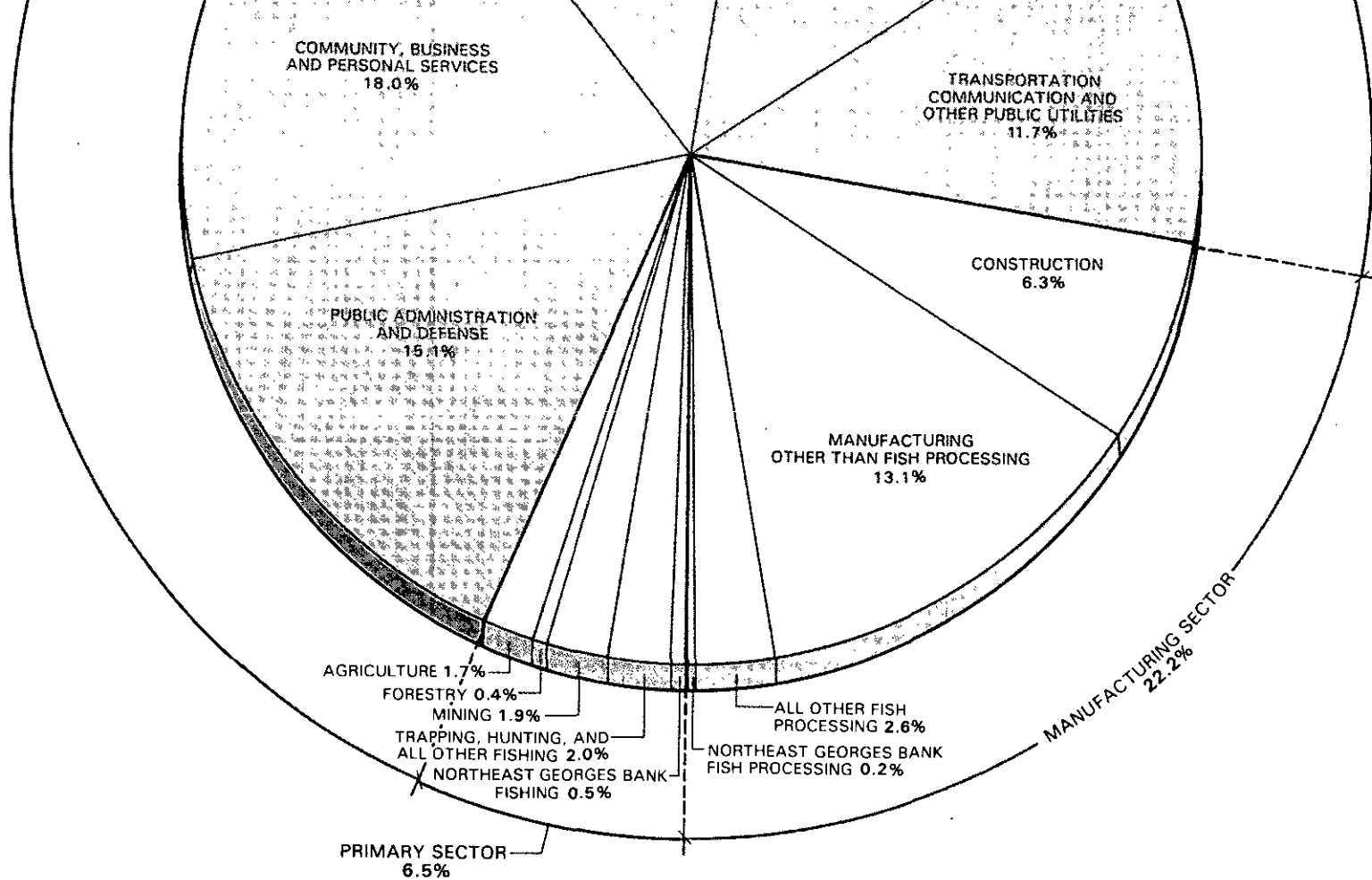
RELATIVE SHARES OF COMBINED UNITED STATES/CANADIAN SCALLOP CATCH ON GEORGES BANK BY WEIGHT (1940-1981)

GROSS DOMESTIC PRODUCT BY SUB-SECTOR IN NOVA SCOTIA — 1980

Figure 9







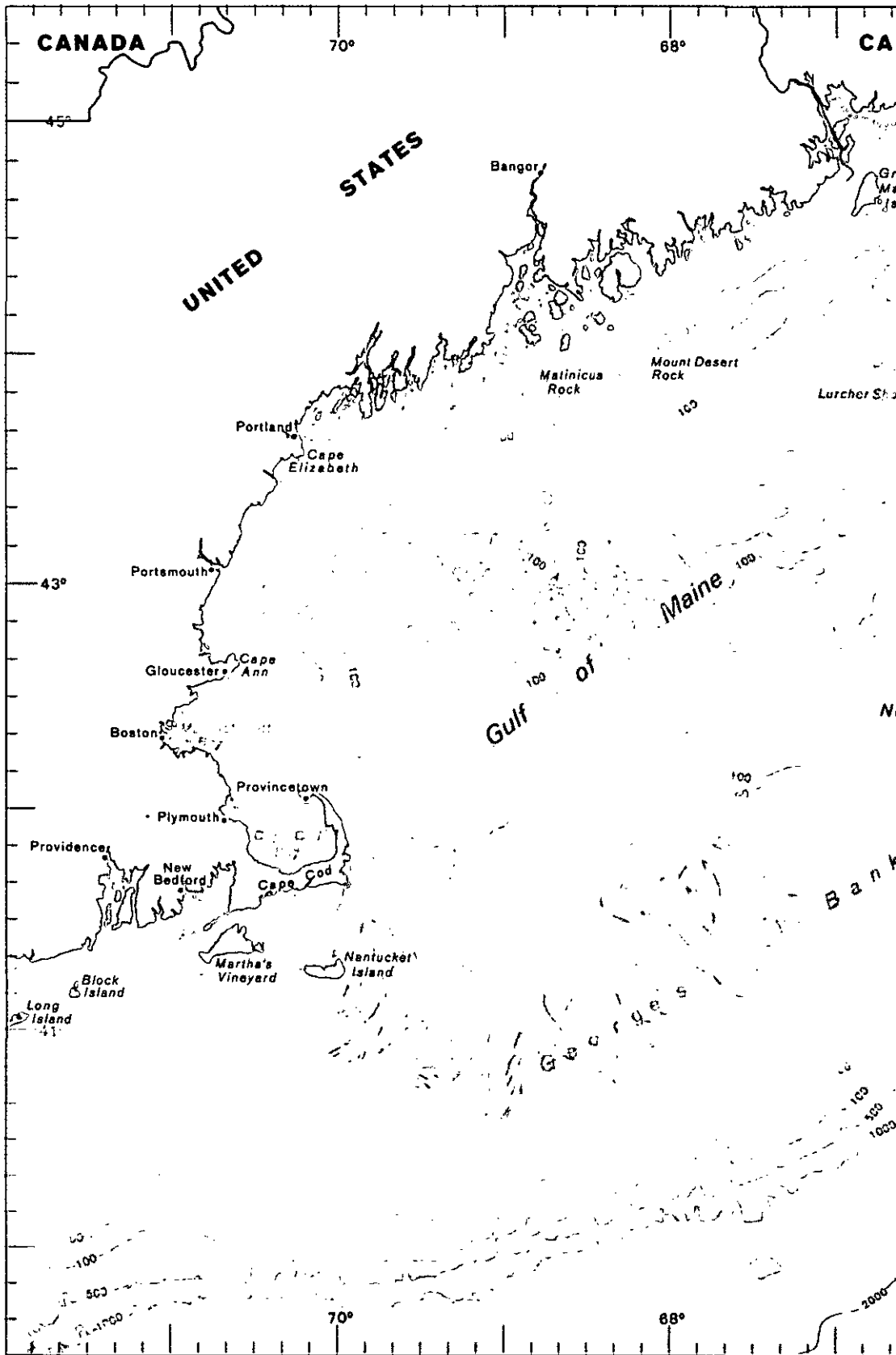


Figure 1

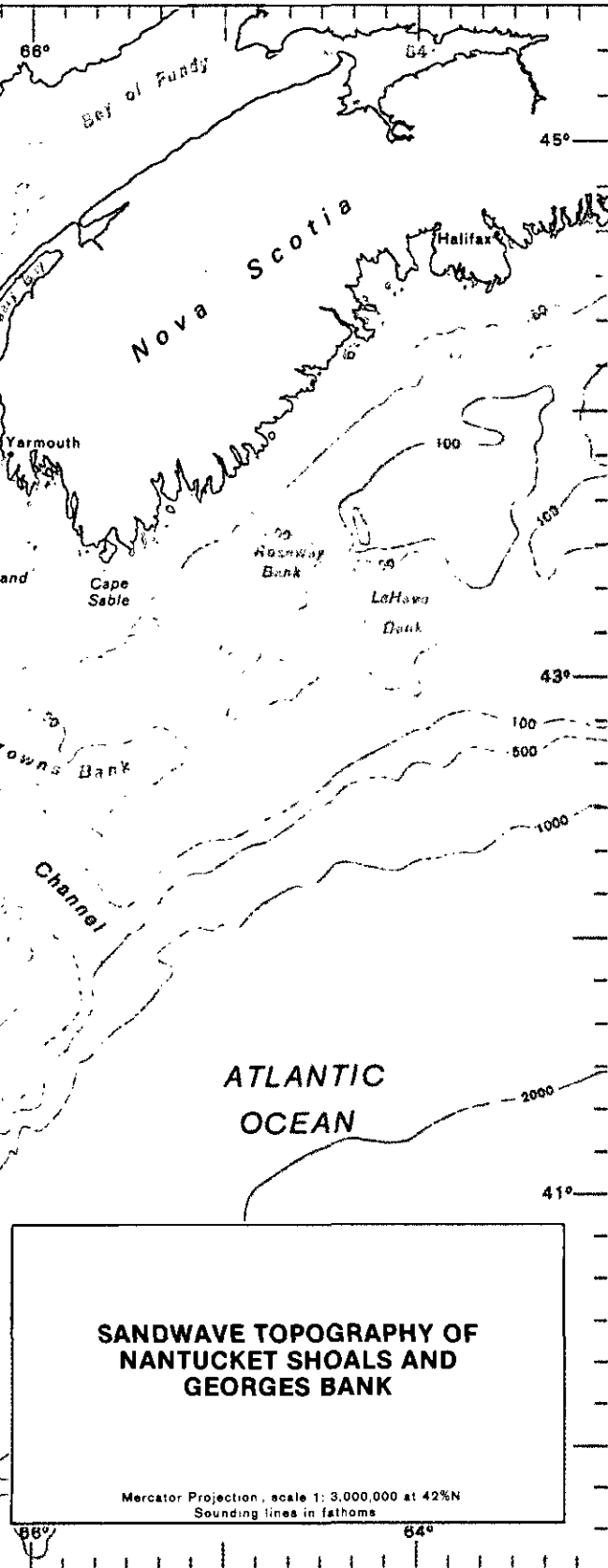
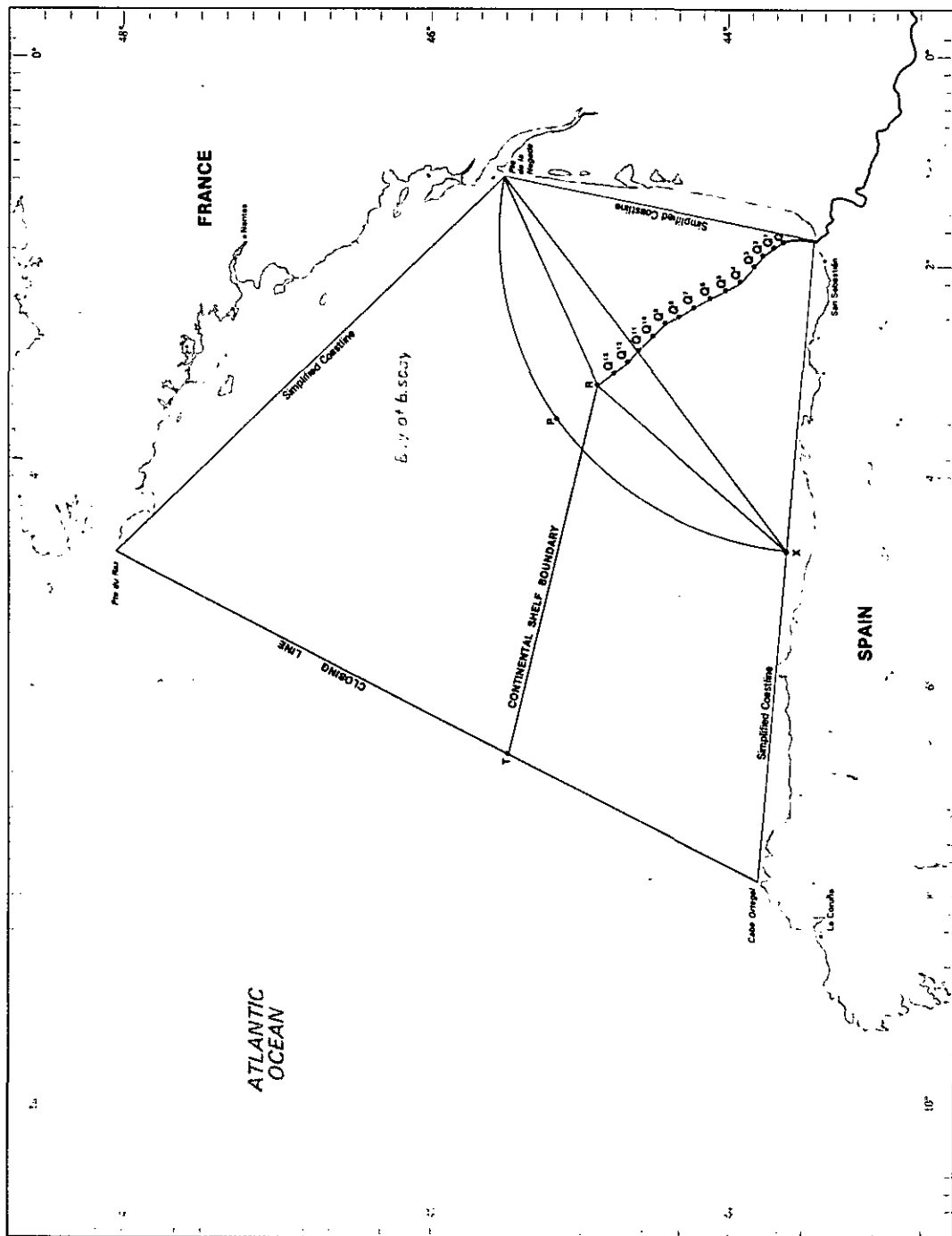
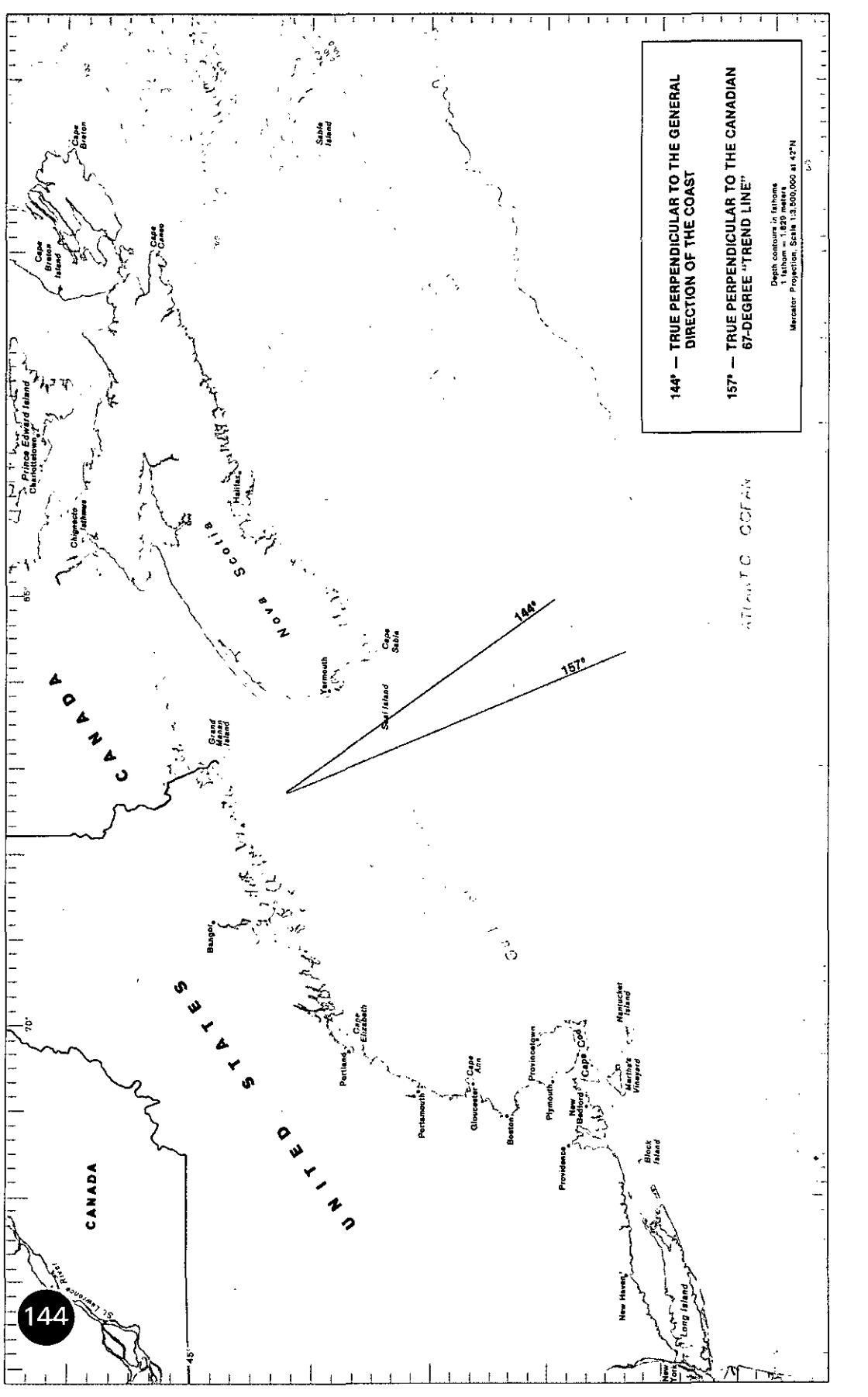


Figure 1



RAY OF BISCAY AGREED CONTINENTAL SHELF BOUNDARY WITH SIMPLIFIED COASTLINES AND OTHER CONSTRUCTION LINES

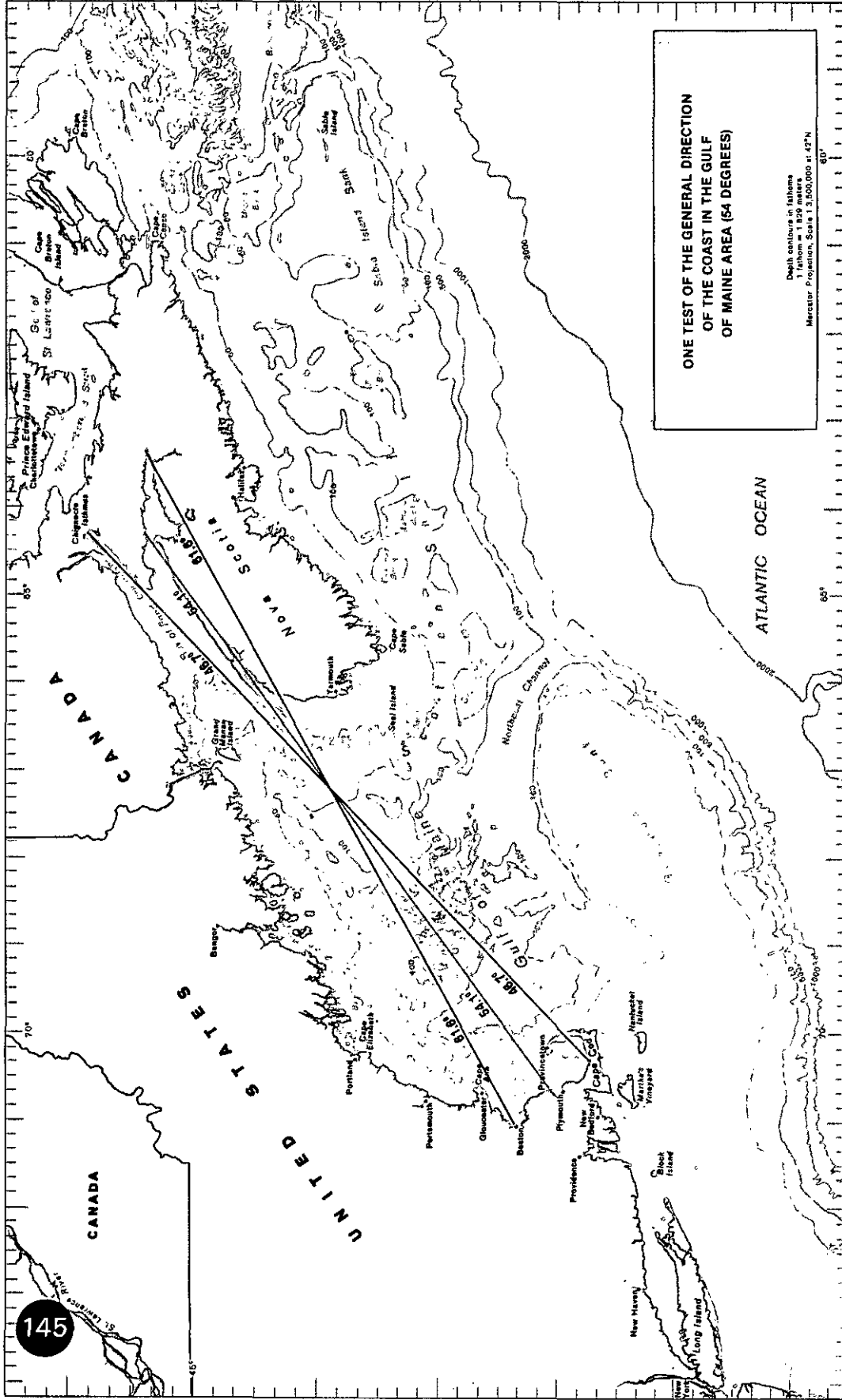


144° — TRUE PERPENDICULAR TO THE GENERAL DIRECTION OF THE COAST

157° — TRUE PERPENDICULAR TO THE CANADIAN 67-DEGREE "TREND LINE"

Depth contours in fathoms  
 1 fathom = 1.829 meters  
 Mercator Projection, Scale 1:500,000 at 42°N

ATLANTIC OCEAN



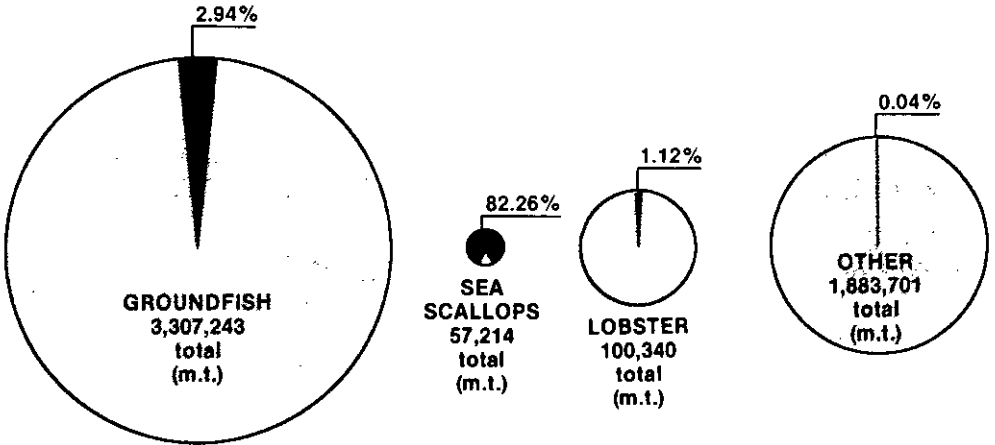
ONE TEST OF THE GENERAL DIRECTION  
 OF THE COAST IN THE GULF  
 OF MAINE AREA (84 DEGREES)

Depth contours in fathoms  
 1 fathom = 1.829 meters  
 Mercator Projection, Scale 1:500,000 at 42°N

**COMPARISON OF CANADIAN CATCH FROM THE NORTHEASTERN  
PORTION OF GEORGES BANK WITH TOTAL  
CANADIAN CATCH IN THE NORTHWEST ATLANTIC  
FOR THE YEARS 1977—1981 (in metric tons)**

5 YEAR AVERAGE BY SPECIES

NORTHEASTERN PORTION  
OF GEORGES BANK



ALL SPECIES BY YEAR

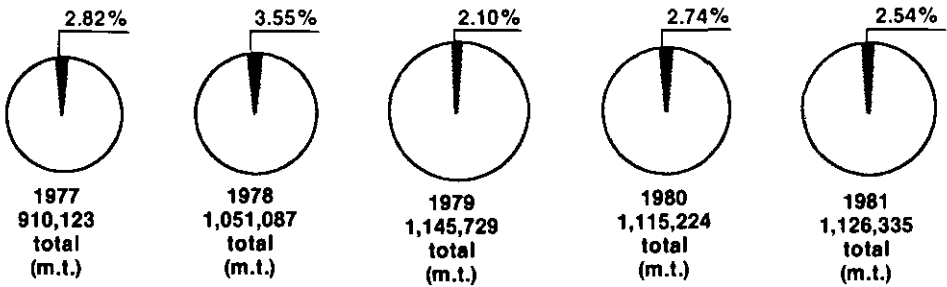
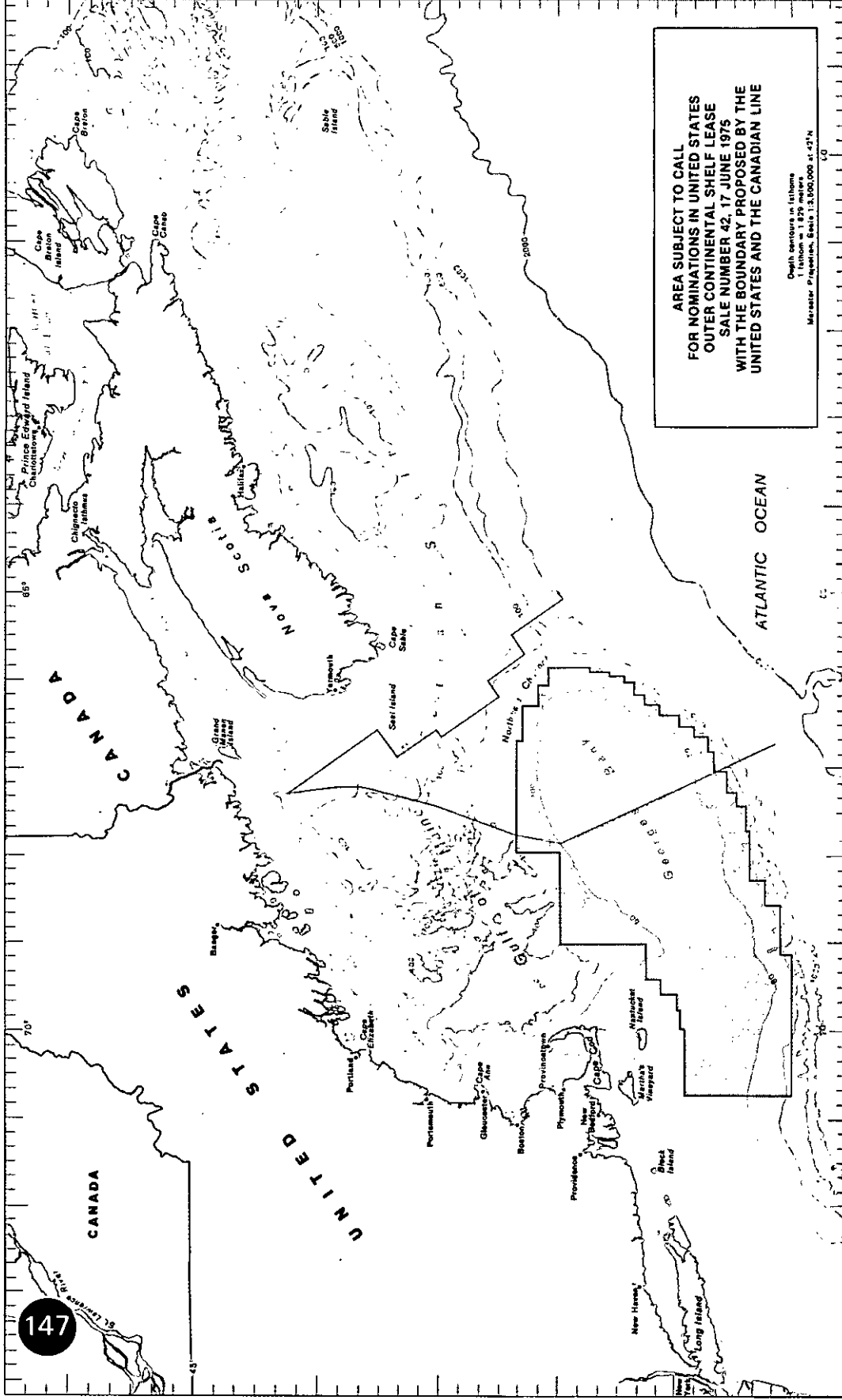


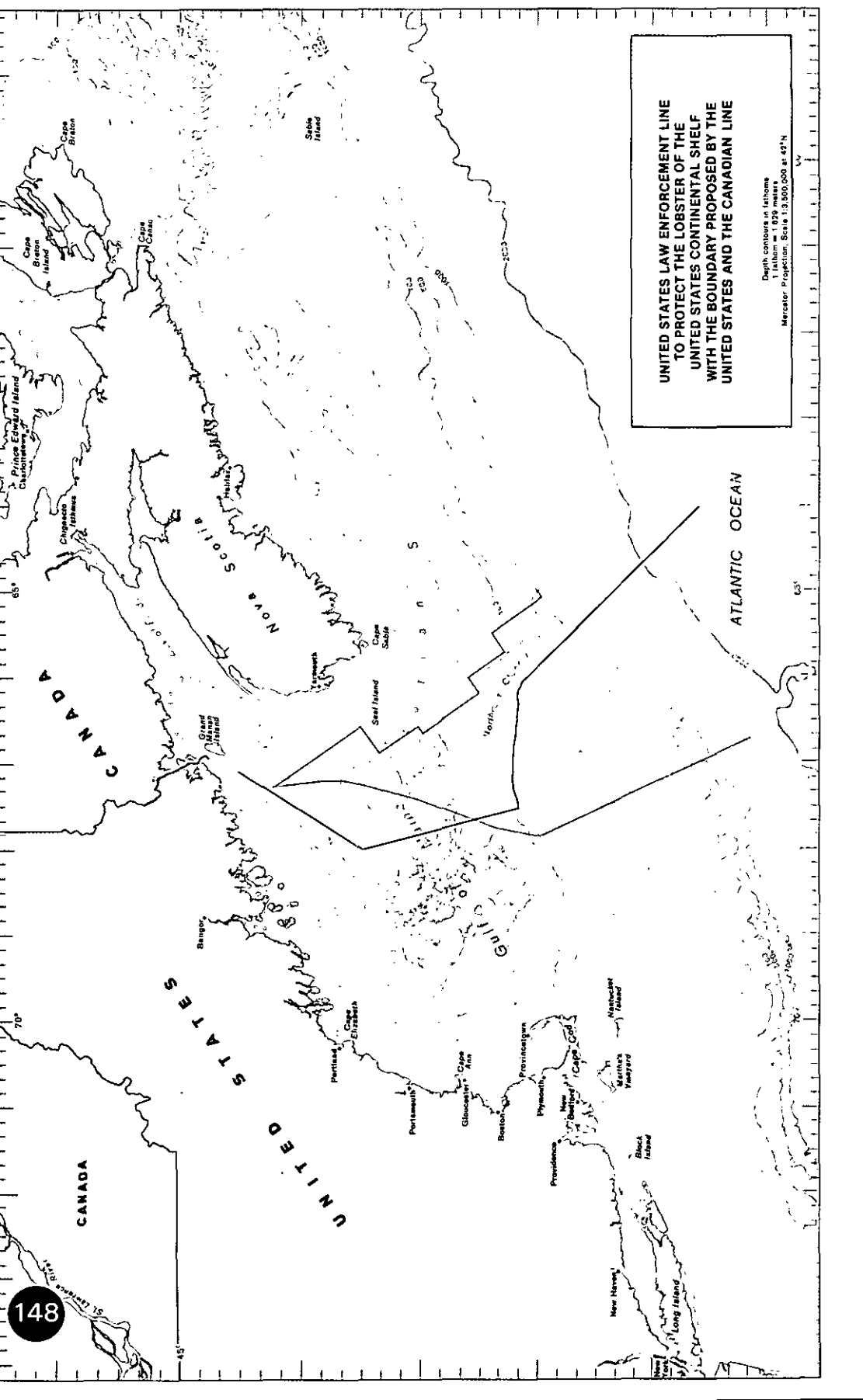
Figure 1

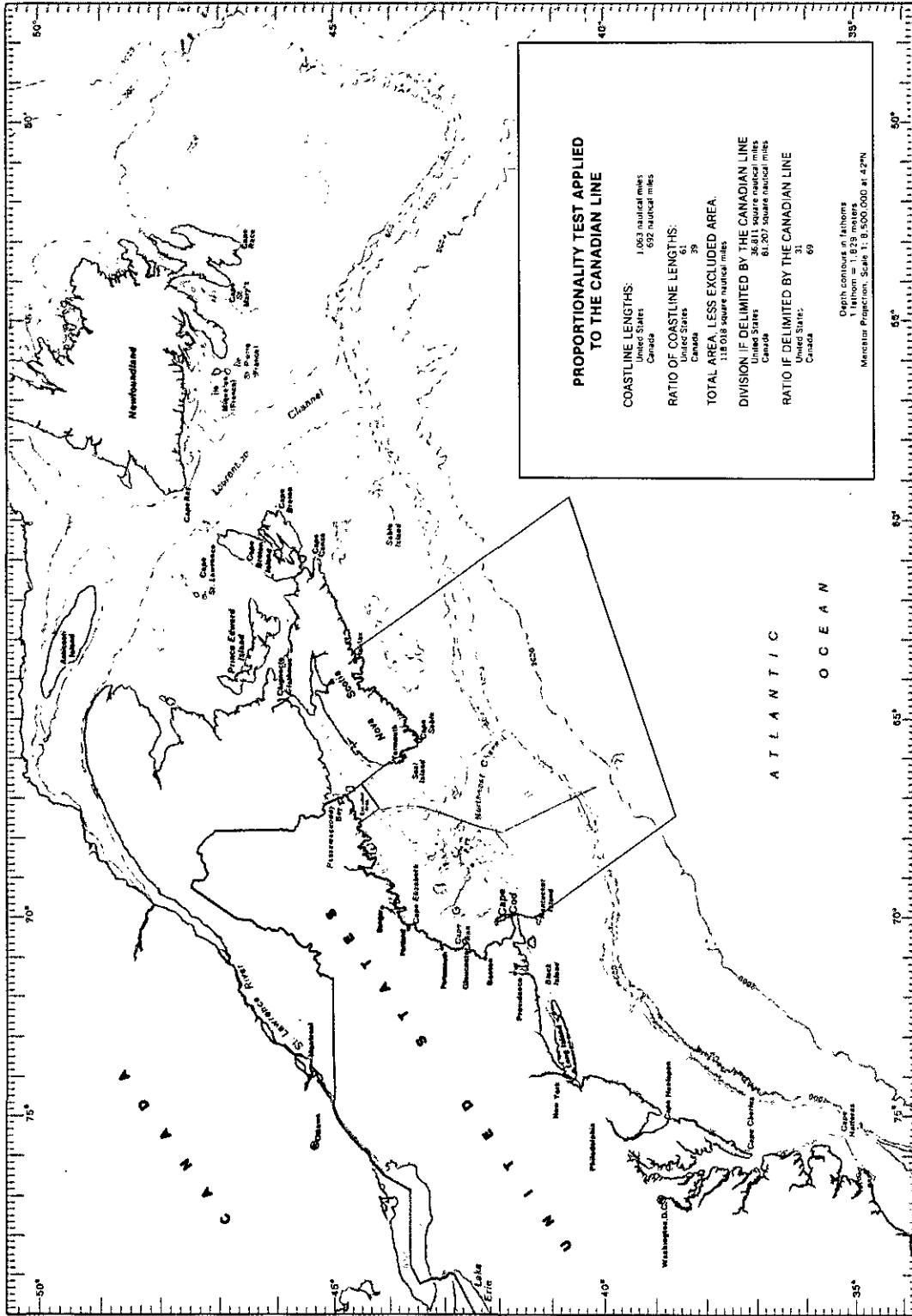


AREA SUBJECT TO CALL  
 FOR NOMINATIONS IN UNITED STATES  
 OUTER CONTINENTAL SHELF LEASE  
 SALE NUMBER 42, 17 JUNE 1976  
 WITH THE BOUNDARY PROPOSED BY THE  
 UNITED STATES AND THE CANADIAN LINE

Depth contours in fathoms  
 Contour interval 100 fathoms  
 Mercator Projection, Scale 1:3,000,000 at 43°N





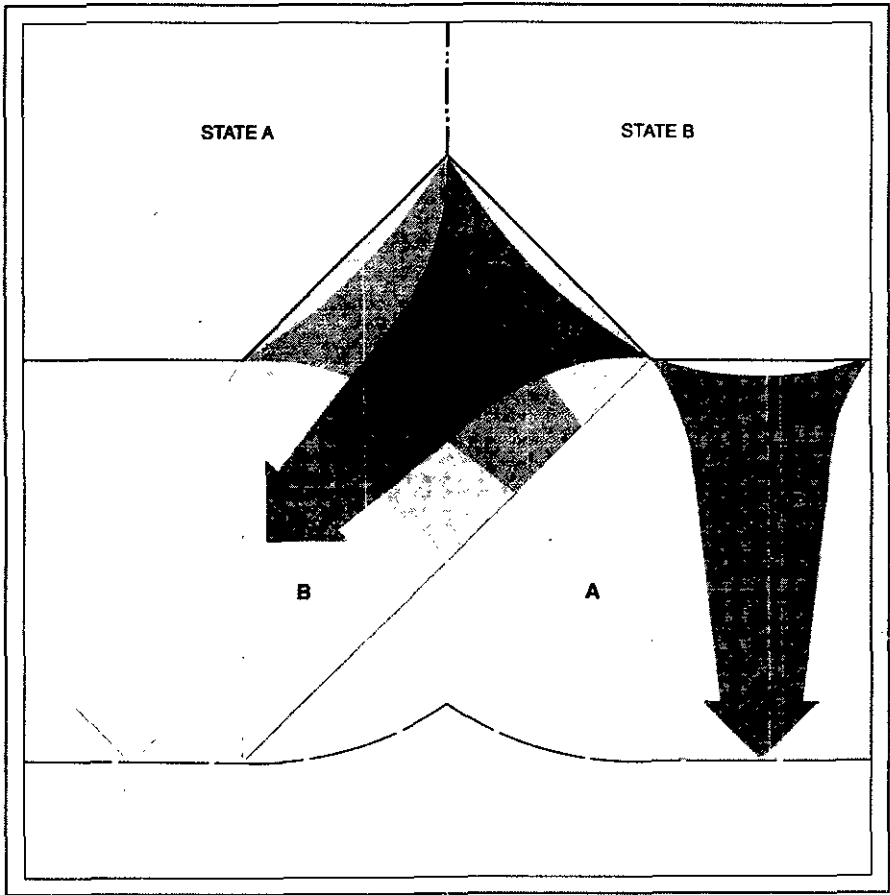


**PROPORTIONALITY TEST APPLIED TO THE CANADIAN LINE**

<b>COASTLINE LENGTHS:</b>	1,063 nautical miles
United States	692 nautical miles
Canada	
<b>RATIO OF COASTLINE LENGTHS:</b>	
United States	31
Canada	69
<b>TOTAL AREA, LESS EXCLUDED AREA,</b>	
United States	1,18,018 square nautical miles
Canada	
<b>DIVISION IF DELIMITED BY THE CANADIAN LINE</b>	
United States	86,511 square nautical miles
Canada	31,507 square nautical miles
<b>RATIO IF DELIMITED BY THE CANADIAN LINE</b>	
United States	31
Canada	69

Depth contours in fathoms  
 1 fathom = 1,829 meters  
 Mercator Projection, Scale 1:500,000 #1-4274

A T L A N T I C  
 O C E A N

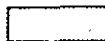


**Figure 1**

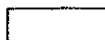
**Seaward Extensions Perpendicular to Coastal Fronts in the Manner Depicted in Figure 31, United States Memorial and Figure 23, United States Counter-Memorial**



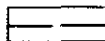
Seaward extensions of State A



Seaward extensions of State B

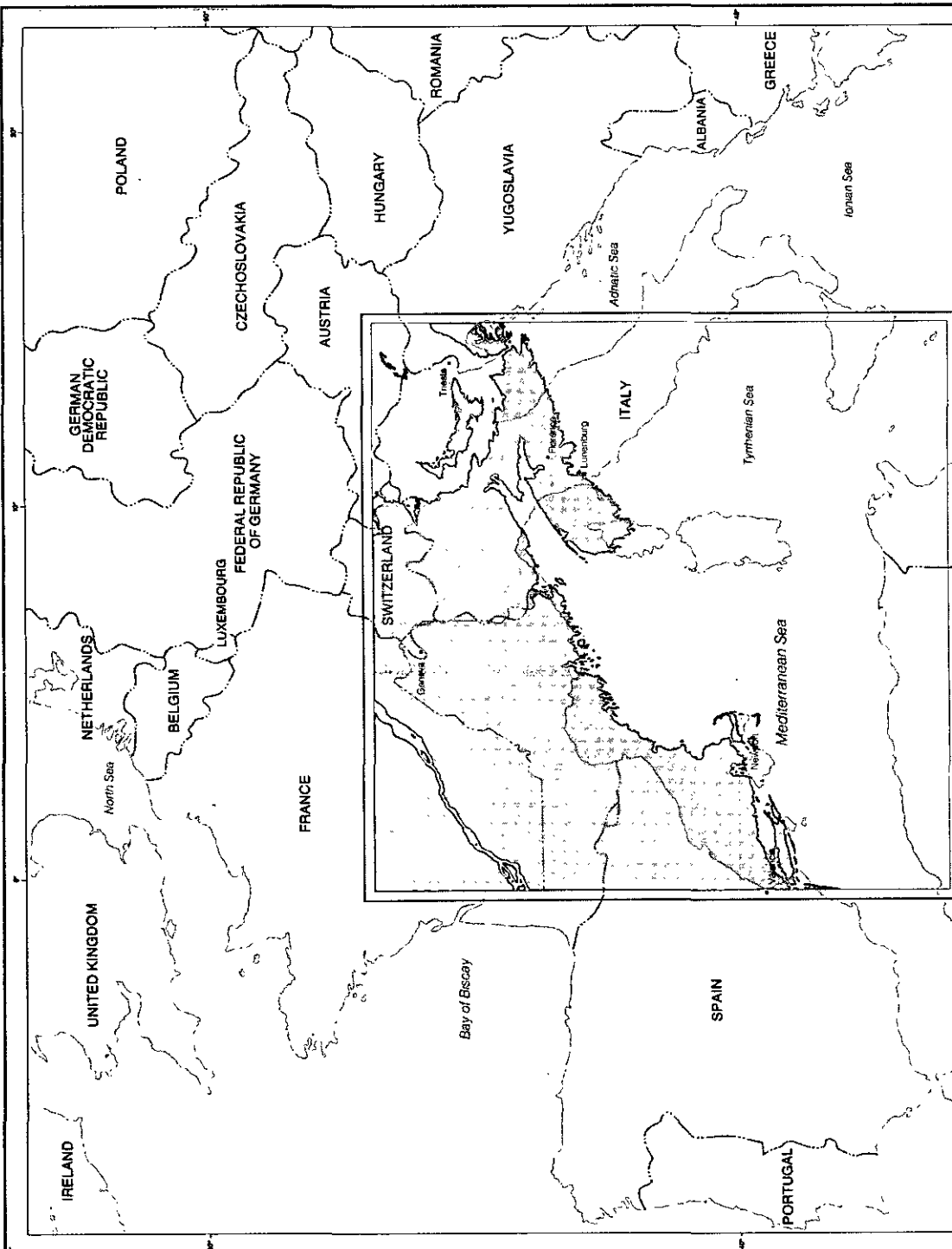


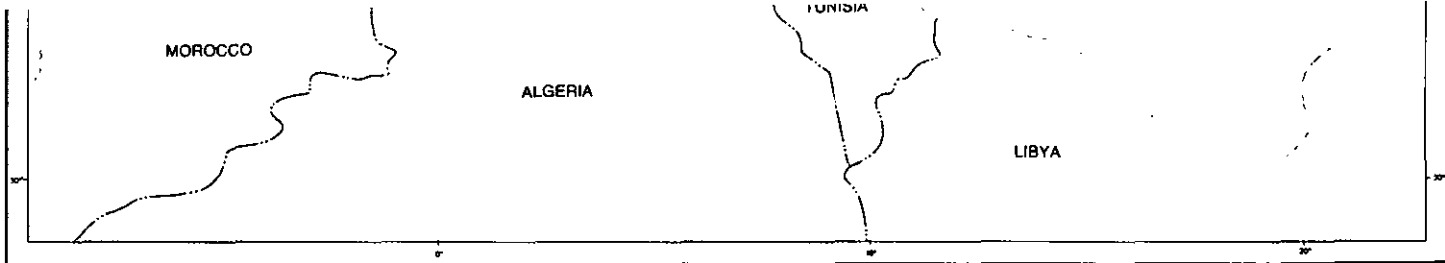
High seas



200-mile limit

Note: When the land boundary is situated in a coastal concavity, the attribution of jurisdiction on the basis of a perpendicular projection of coastal fronts systematically attributes sea areas to the more distant State.





**Figure 2**

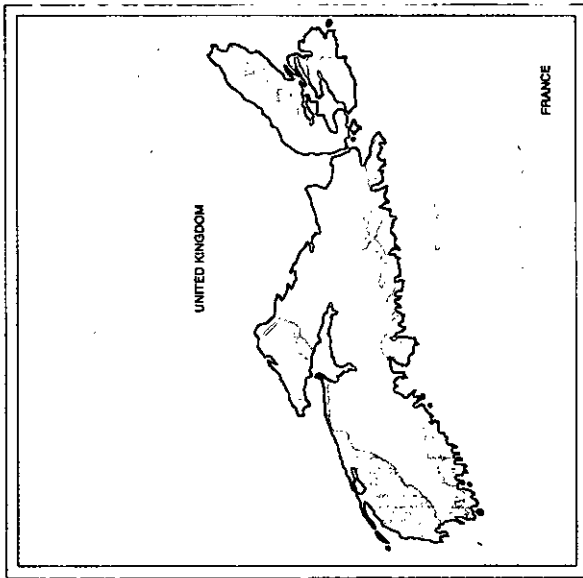
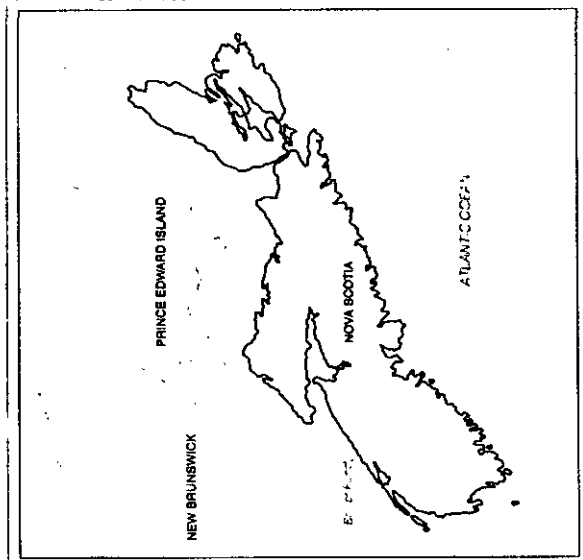
The Gulf of Maine  
Area Compared to  
the Western  
Mediterranean

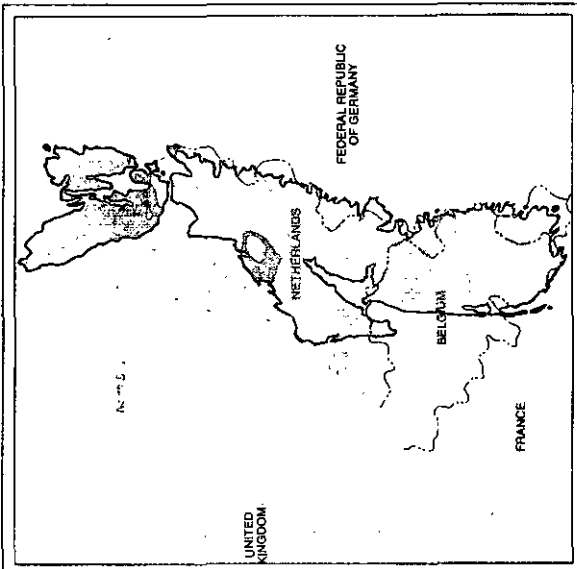
Inset Projection—Mercator  
Inset Scale—1:10 000 000 at 41°N  
Basemap Projection—Mercator  
Basemap Scale—1:10 000 000 at 48°N

**Figure 3**  
**Comparisons of**  
**Scale: Nova Scotia**  
**and Other Areas**

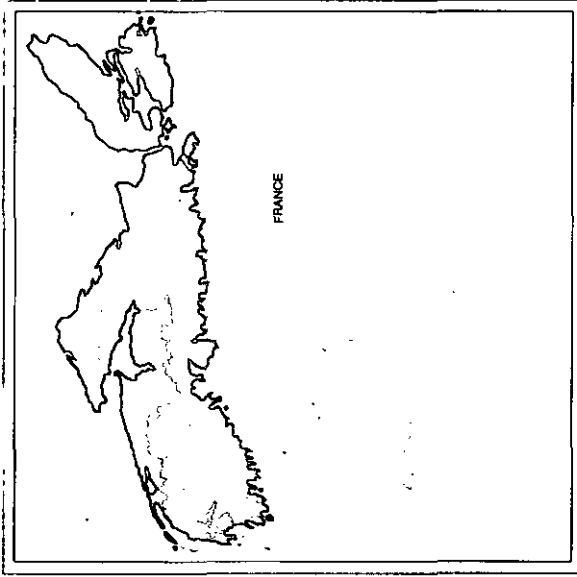
- A** Nova Scotia
  - B** Southern United Kingdom
  - C** Corsica and Sardinia
  - D** Netherlands and Belgium
  - E** Northern France
  - F** Southern Italy
- Note:** Each of these regions is depicted on a Mercator Projection at a scale of 1:5 400 000.

Nova Scotia Projection - Mercator  
 Nova Scotia Scale - 1:5 400 000 at 41°N  
 Europe Projection - Mercator  
 Europe Scale - 1:5 400 000 at 40°N





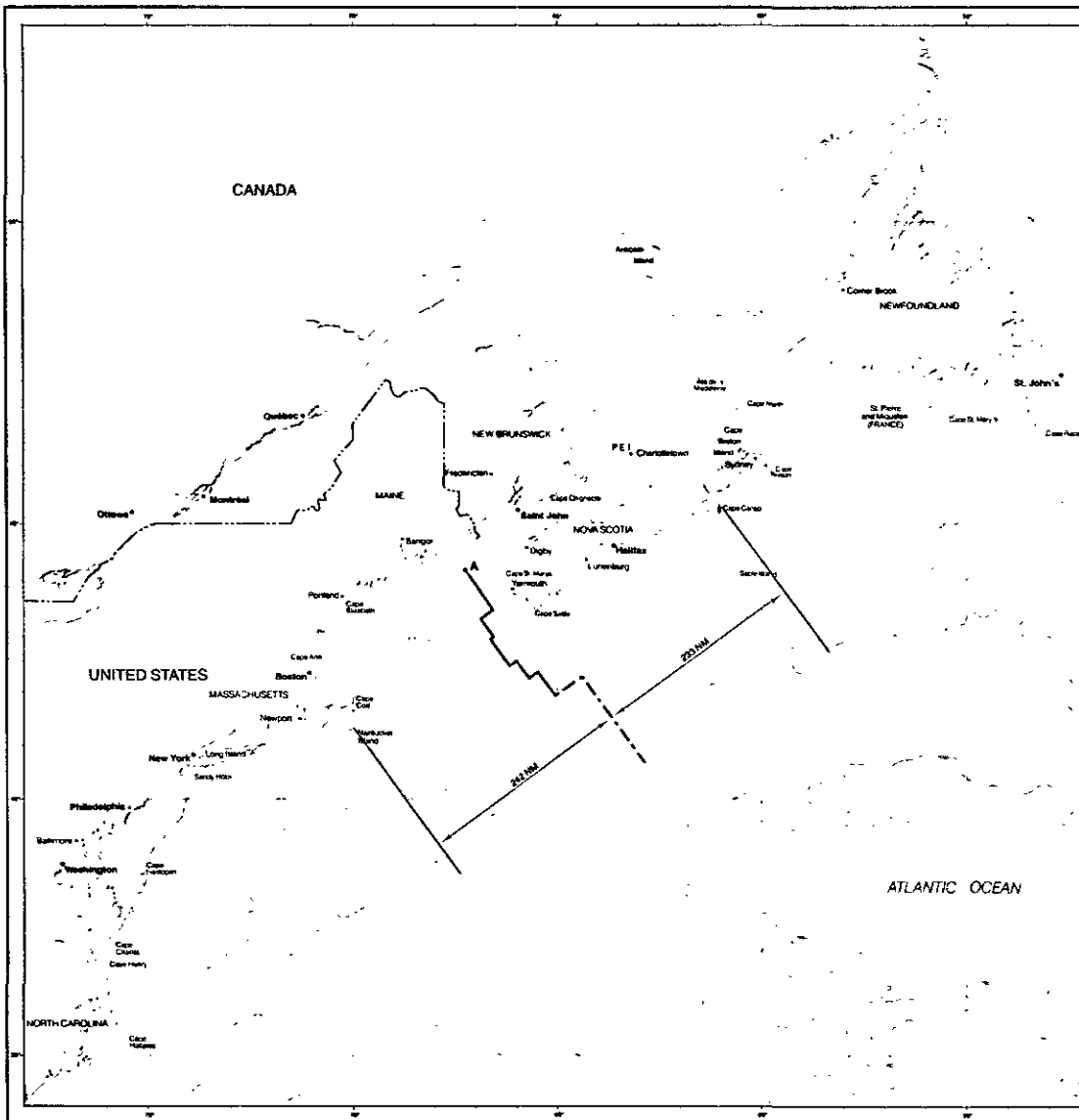
D



E



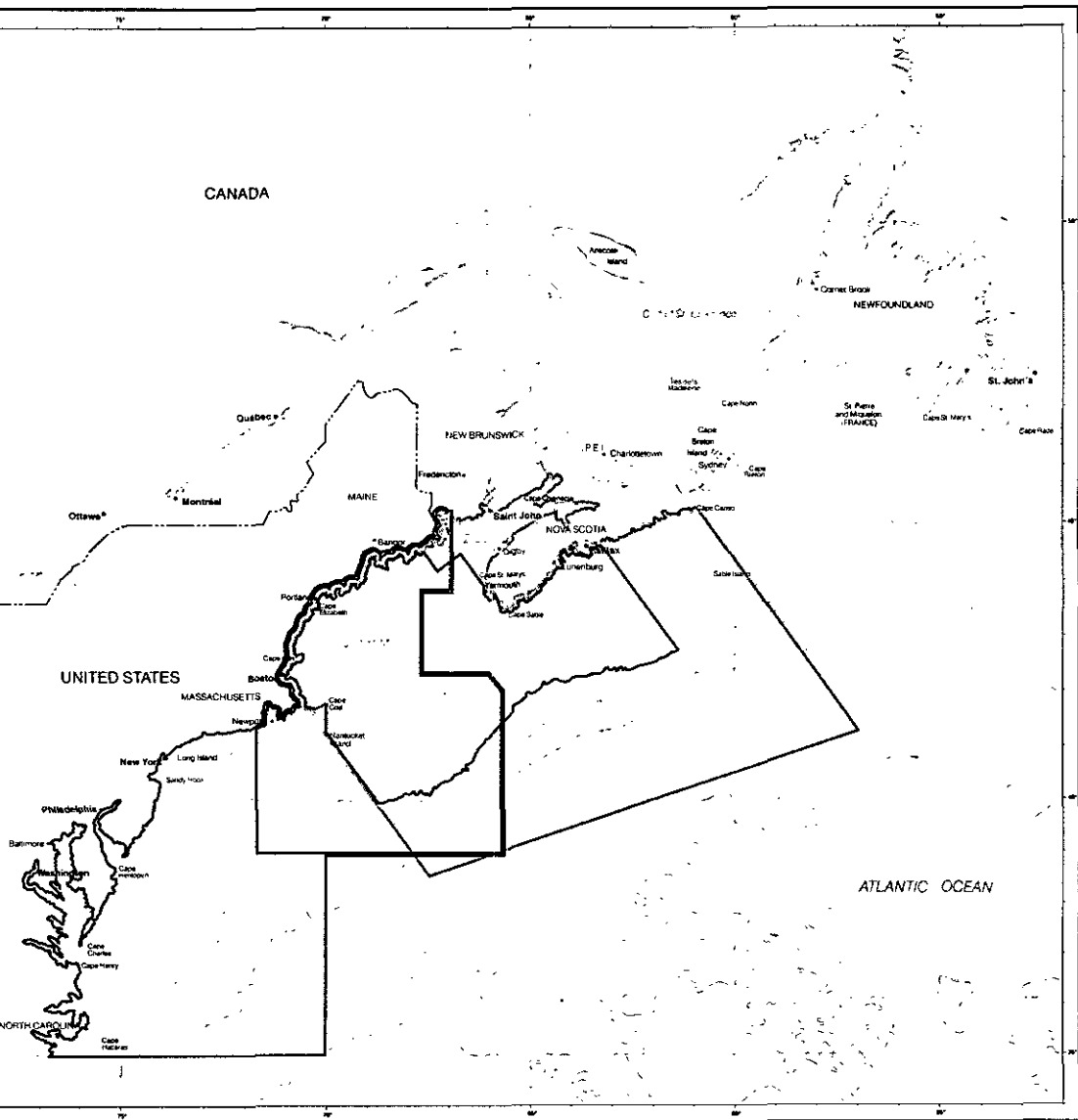
F







**Figure 4**  
**The United States**  
**Defines the**  
**"Relevant Area"**  
**on**  
**the Basis of its 1982**  
**Boundary Proposal**

Depth in Metres  
 Projection - Mercator  
 Scale - 1:11 250 000 at 22°30' N



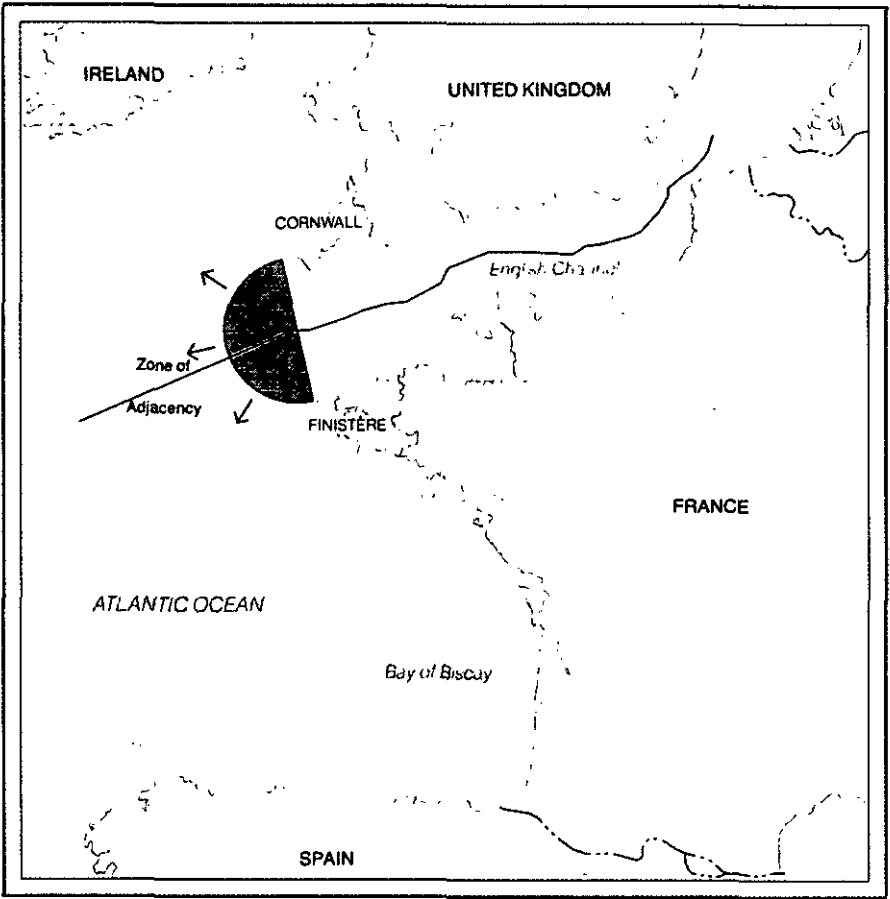


**Figure 5**  
**The "Relevant Areas" in the United States Counter-Memorial**

-  The "Gulf of Maine area" or "relevant area for determining the relevant circumstances in this case"
-  Proportionality test area
-  Area used to determine "relevant shares of combined United States/Canadian total catch on Georges Bank"
-  Area used to compare United States and Canadian management and research initiatives in ICNAF

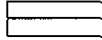
Note: The United States Counter-Memorial states that the "relevant area" includes the Atlantic Ocean "to the limit of coastal-State jurisdiction"; but does not indicate where this "limit" is. In this Figure, the seaward limit of the United States "relevant area" has been illustrated by reference to the method used by the United States to define the seaward limit of the proportionality test area adopted in the United States Memorial (p. 192, para. 312).

Depths in Metres  
 Projection—Mercator  
 Scale—1:11,290,000 at 22°30'N



**Figure 7**

## The Opposite or Adjacent Relationship of the Coasts Relative to the Atlantic Region in the Anglo-French Continental Shelf Arbitration



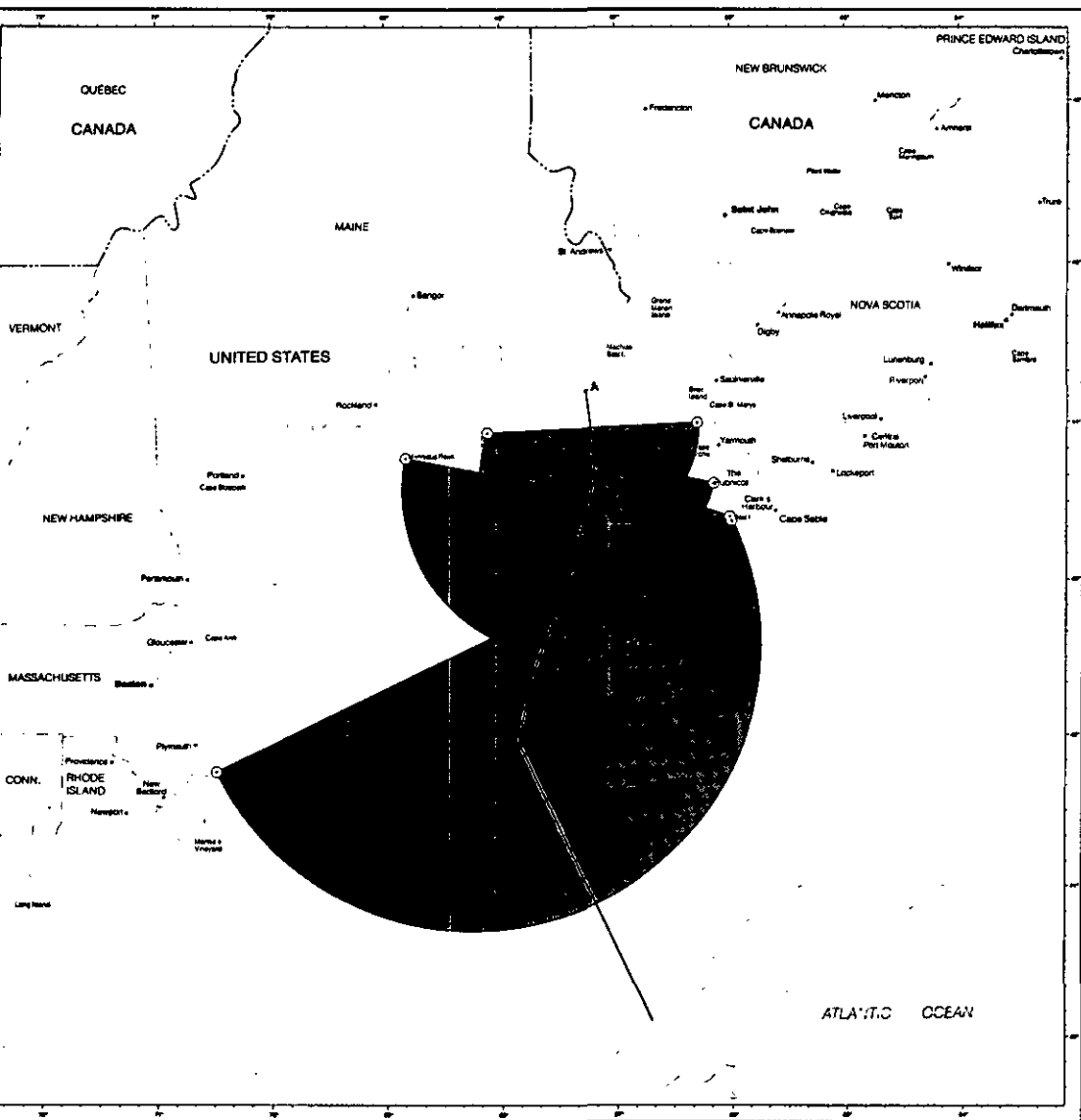
Line determined by the Court of Arbitration in the 1977 Anglo-French Continental Shelf Award



Zone of Oppositeness

The application of the mathematical analysis of the opposite or adjacent relationship of coasts relative to the area to be delimited demonstrates that the relationship of the coasts of Cornwall and Finistère vis-à-vis the greater part of the area delimited by the Court in the Atlantic Region is predominantly adjacent.

Projection—Mercator  
Scale—1:10 000 000 at 48°N



**Figure 8**

**Mathematical Analysis of the Opposite or Adjacent Relationship of the Coasts Relative to the Area to be Delimited, as Applied to the Basepoints Used in the Construction of the Canadian Line**



Basepoints used in the construction of the Canadian line



Zones of oppositeness

Depth in Metres  
Projection = Mercator  
Scale = 1 : 3 240 000 at 41°N

**Figure 9**

# The Proportionate or Disproportionate Effects of Particular Geographical Features on an Equidistance Boundary

**A**



Equidistance line drawn from the New Brunswick coast discounting the effect of Nova Scotia

**B**



Strict equidistance line



Equidistance line drawn from the New Brunswick coast

**C**



Equidistance line drawn from Cape Cod Canal discounting the effect of Cape Cod and its offlying islands

**D**



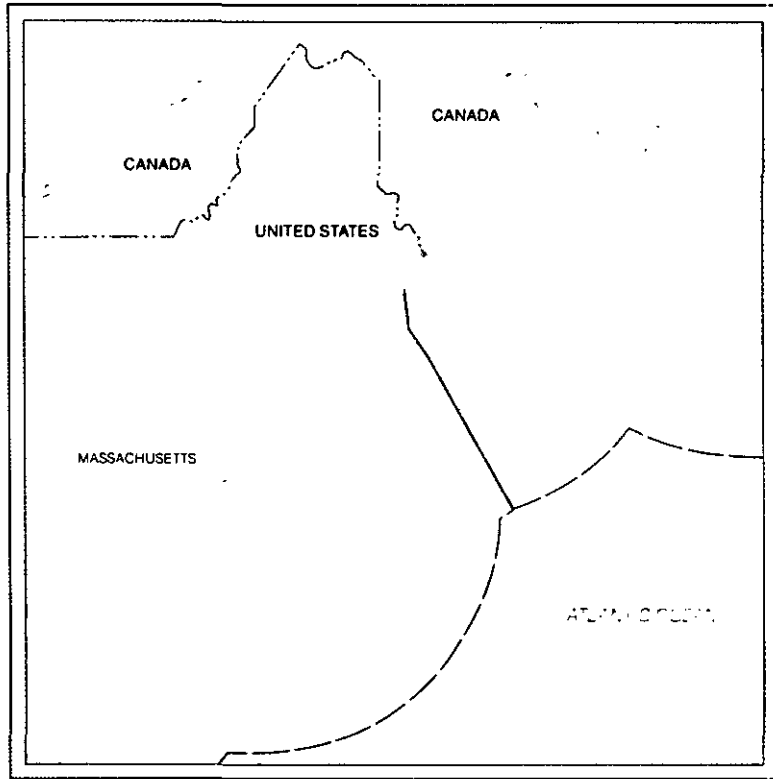
Strict equidistance line



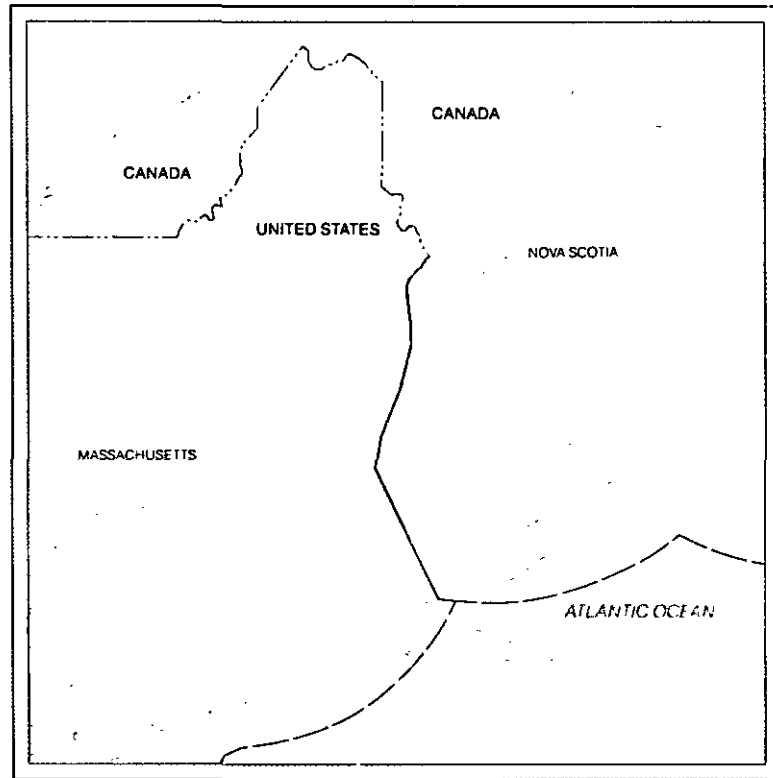
Equidistance line drawn from Cape Cod Canal

Note: The ratio between the land area of peninsular Nova Scotia (13 177 square nautical miles) relative to the sea area it attracts on the basis of an equidistance line boundary (10 960 square nautical miles) is 1 : 0.8. The ratio between the land area of Cape Cod and Nantucket Island (346 square nautical miles) relative to the sea area they attract on the basis of an equidistance line boundary (2 906 square nautical miles) is 1 : 8.4.

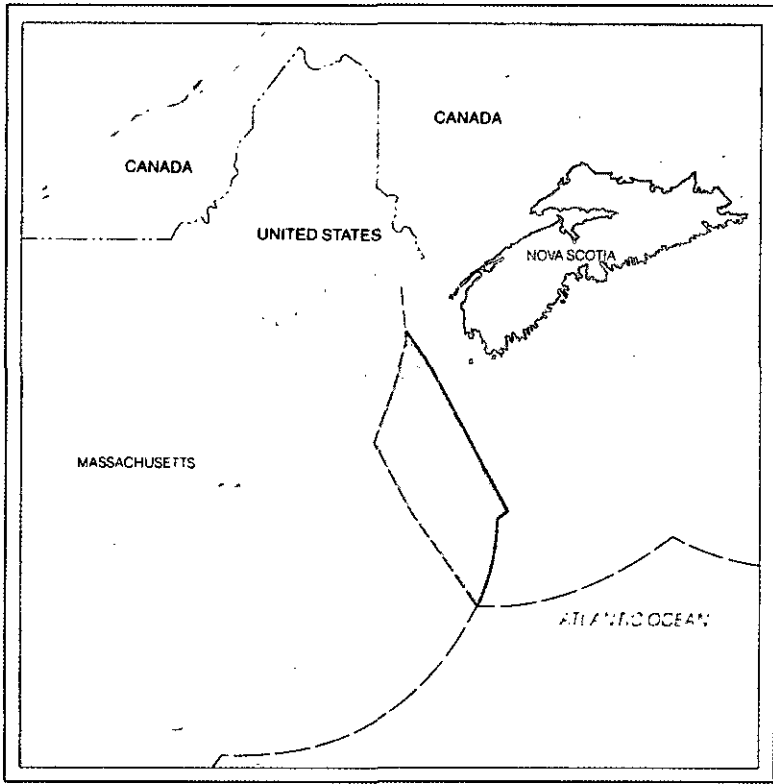
Depths in Metres  
Projection--Mercator  
Scale--1:10 000 000 at 41°N



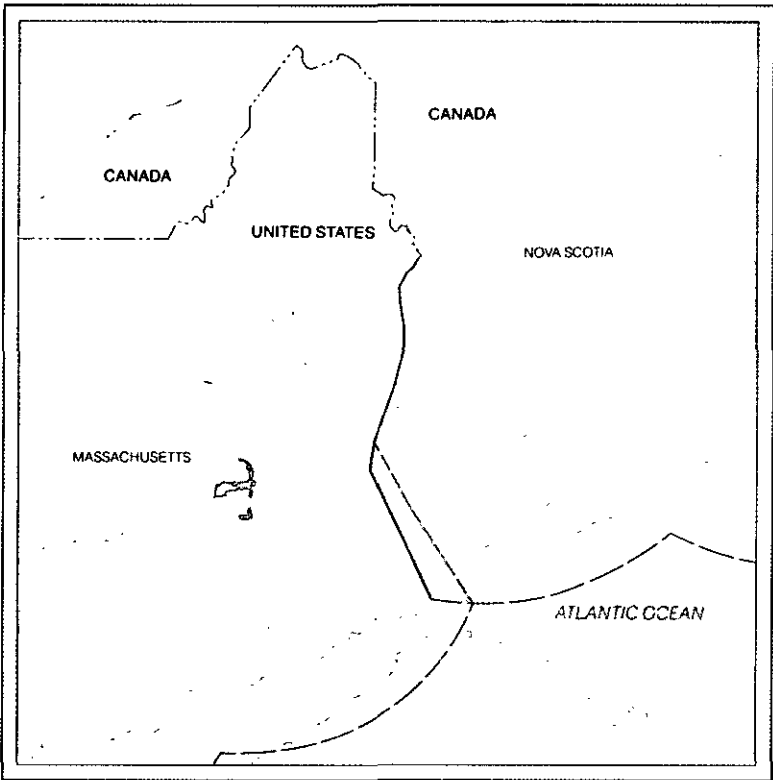
**A**



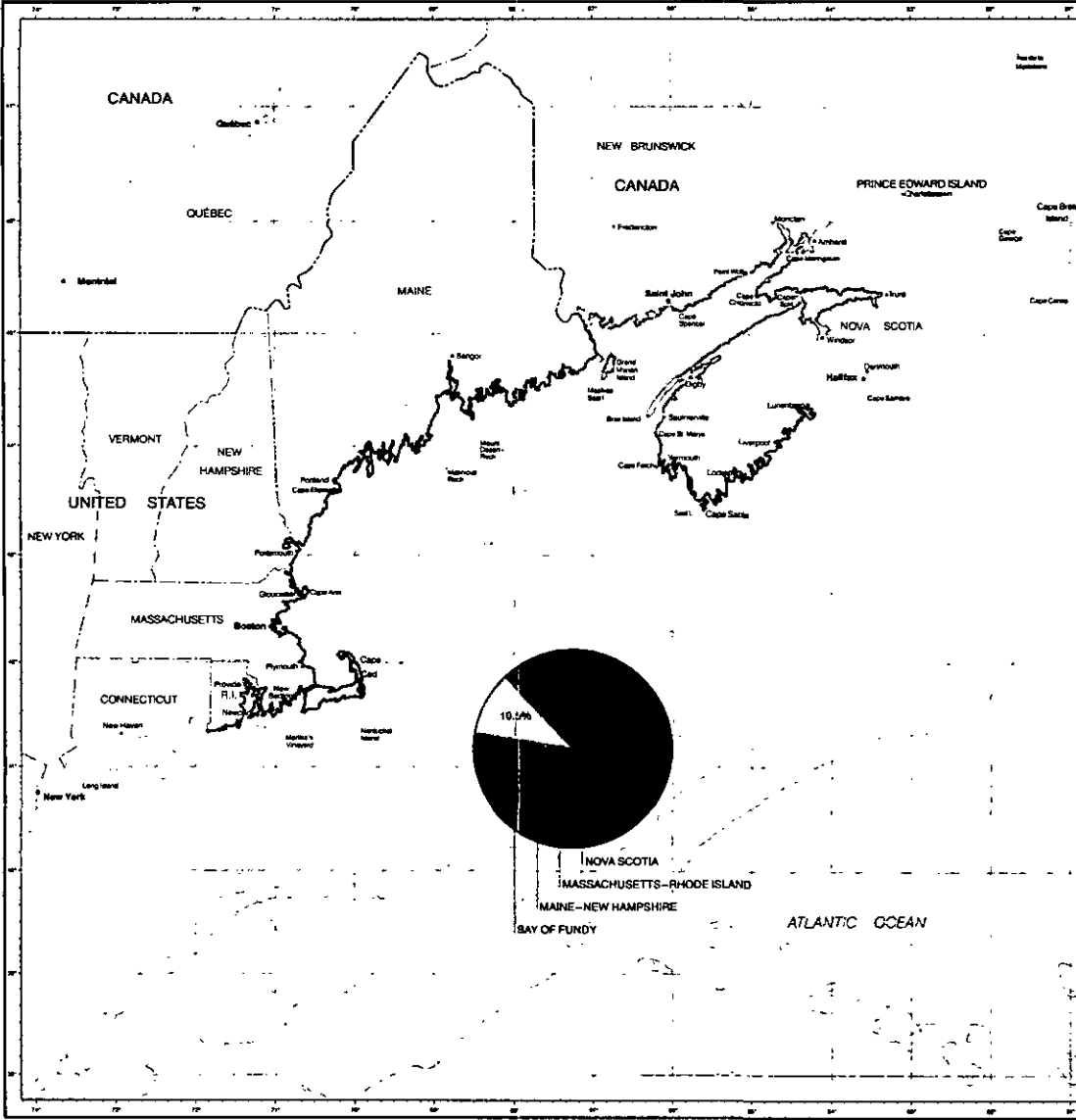
**C**







B



D

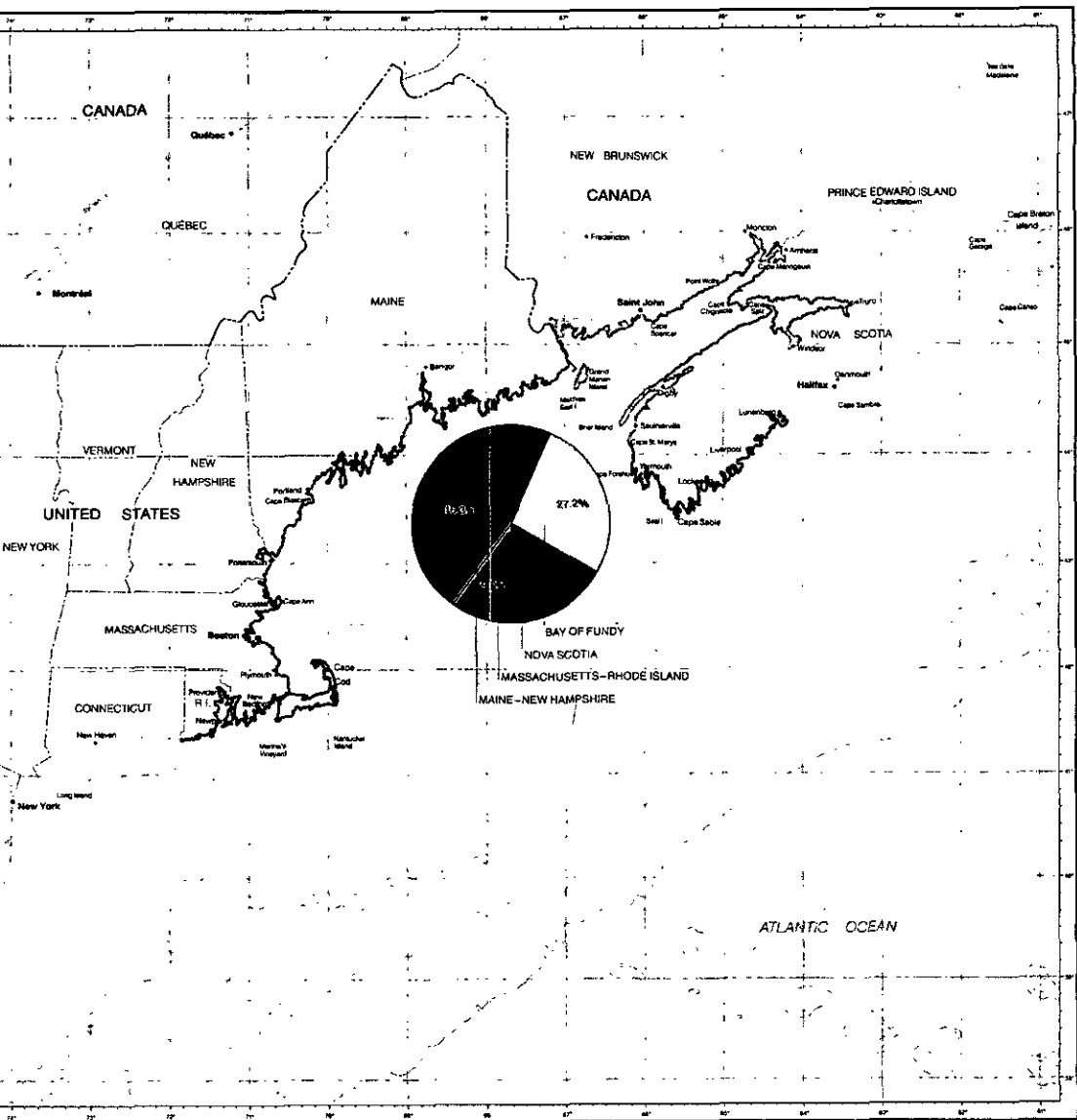


**Figure 10**  
**The Relevant Fishing Coasts: Georges Bank**





-  Nova Scotia coastal wing ports
-  Bay of Fundy ports
-  Maine-New Hampshire ports
-  Massachusetts-Rhode Island coastal wing ports

Note: The percentages of total catch from Georges Bank by area of landing illustrated in the pie chart relate to the period 1969-1978. Values have been calculated by using 1978 Canadian offshore prices at Lunenburg. These data reflect the established fishing links between the relevant coasts and Georges Bank. Georges Bank is defined by reference to NAFO statistical units 5Zej, 5Zeh, 5Zen and 5Zem. Catch data are taken from official statistics of Canada and the United States.

Depth in Metres  
 Projection - Mercator  
 Scale - 1 : 4 700 000 at 41°N



**Figure 11**  
**The Relevant Fishing Coasts: The Inner Area**

-  Nova Scotia coastal wing ports
-  Bay of Fundy ports
-  Maine-New Hampshire ports
-  Massachusetts-Rhode Island coastal wing ports

Note: The percentages of total catch from the inner area by area of landing illustrated in the pie chart relate to the period 1969-1978. Values have been calculated by using 1978 Canadian offshore prices at Lunenburg. These data reflect the established fishing links between the relevant coasts and the inner area. The inner area has been defined by reference to NAFO subdivisions 5Yb, 5Yc, 5Yd, 5Ye, 5Yf, 4Xs, 4Xr and 4Xq. Catch data are taken from official statistics of Canada and the United States.

Depth in Metres  
 Projection - Mercator  
 Scale - 1:4 700 000 at 41°N

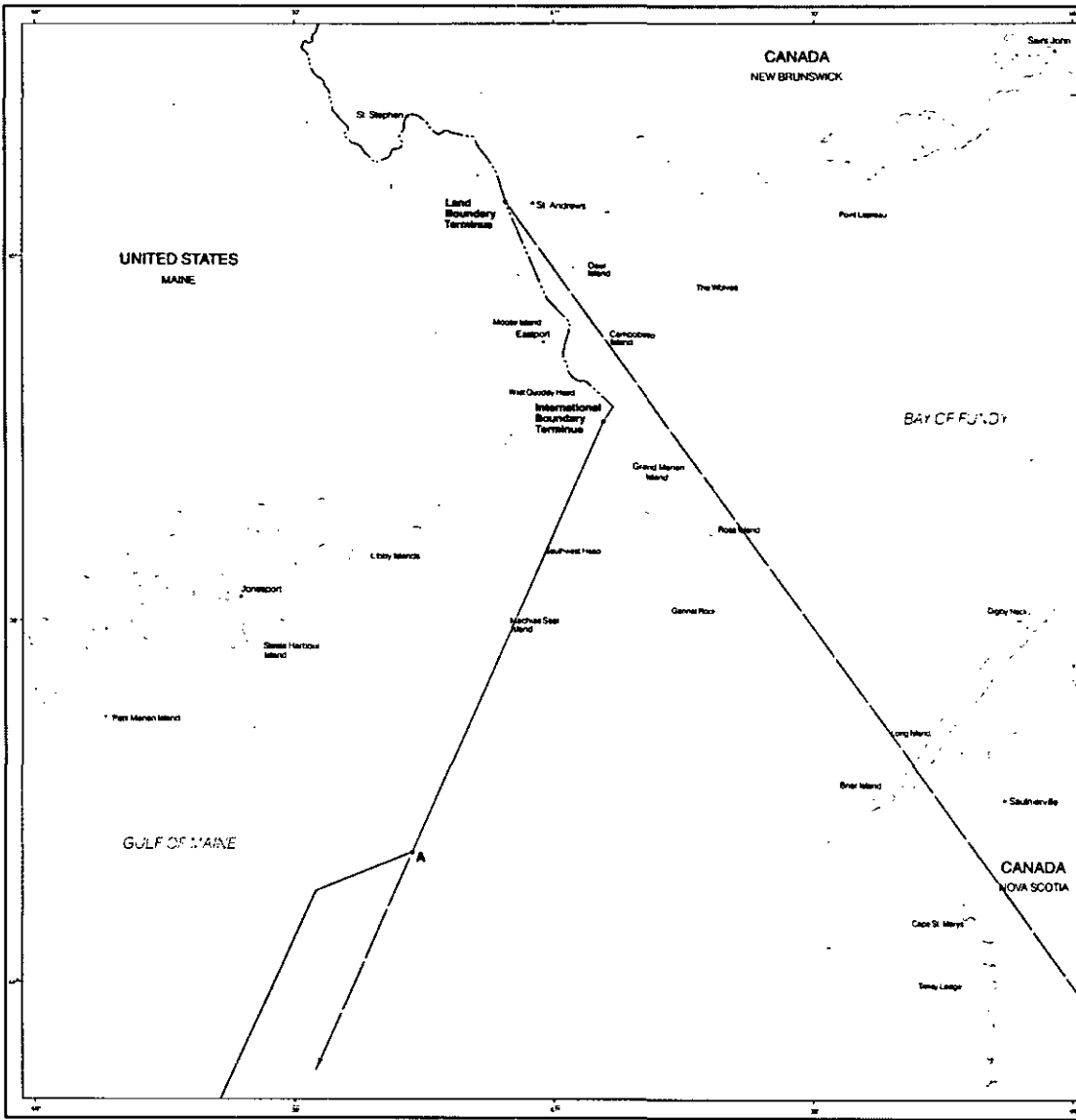







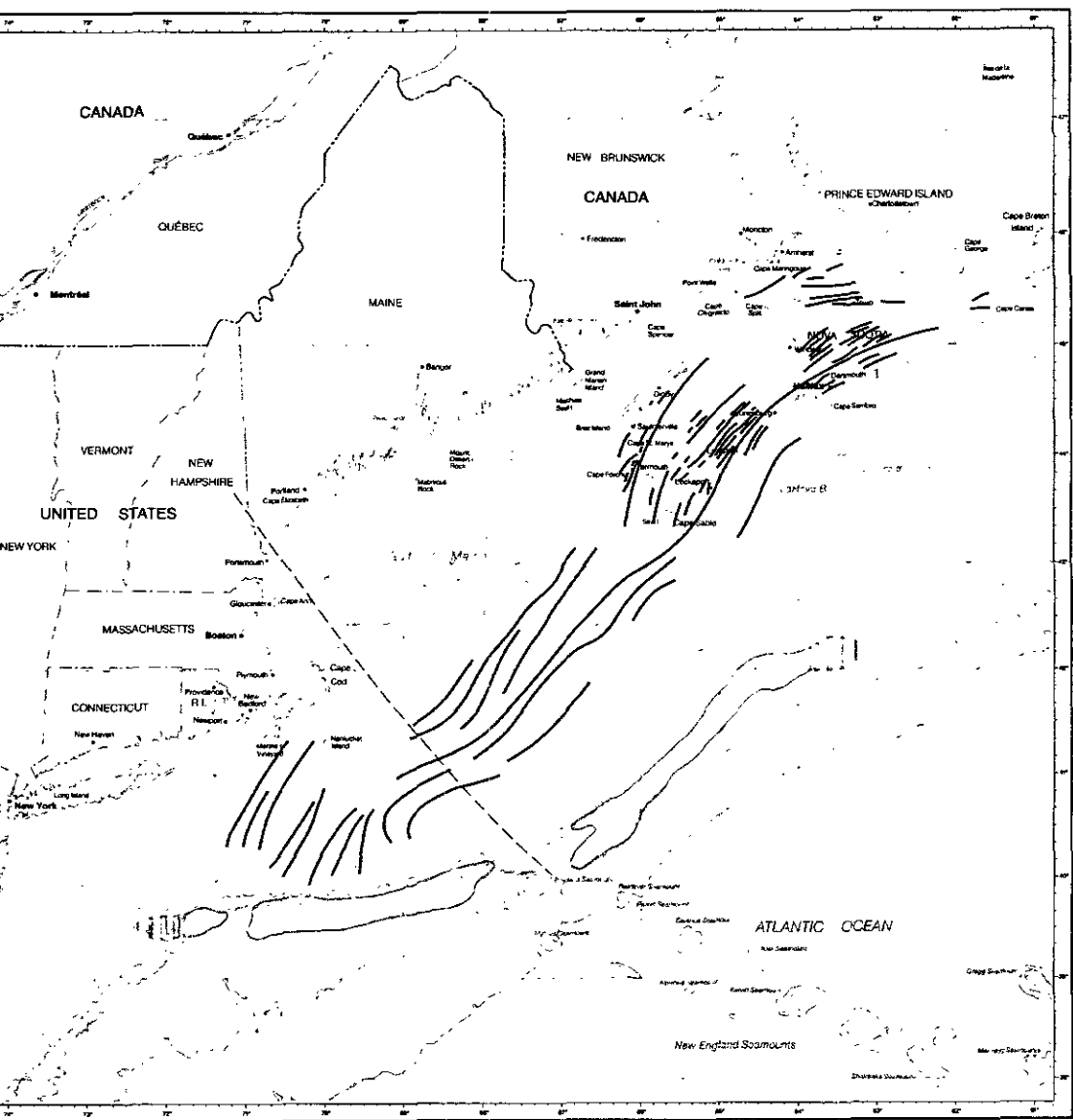
Figure 12

**The Land Boundary Terminus, the Existing Maritime Boundary Terminus and the Agreed Point of Commencement (Point A) of the Single Maritime Boundary**




-  Land boundary
-  Existing maritime boundary
-  Line of bearing between the international boundary terminus and Point A
-  The United States claim at 4 November 1976 from Point A
-  "Perpendicular to the general direction of the coast" as depicted in Figure 27, United States Memorial, transferred to the land boundary terminus

Projection—Mercator  
Scale—1:630,000 at 46°N





**Figure 14**  
**The Geological Links Between Nova Scotia and Georges Bank**

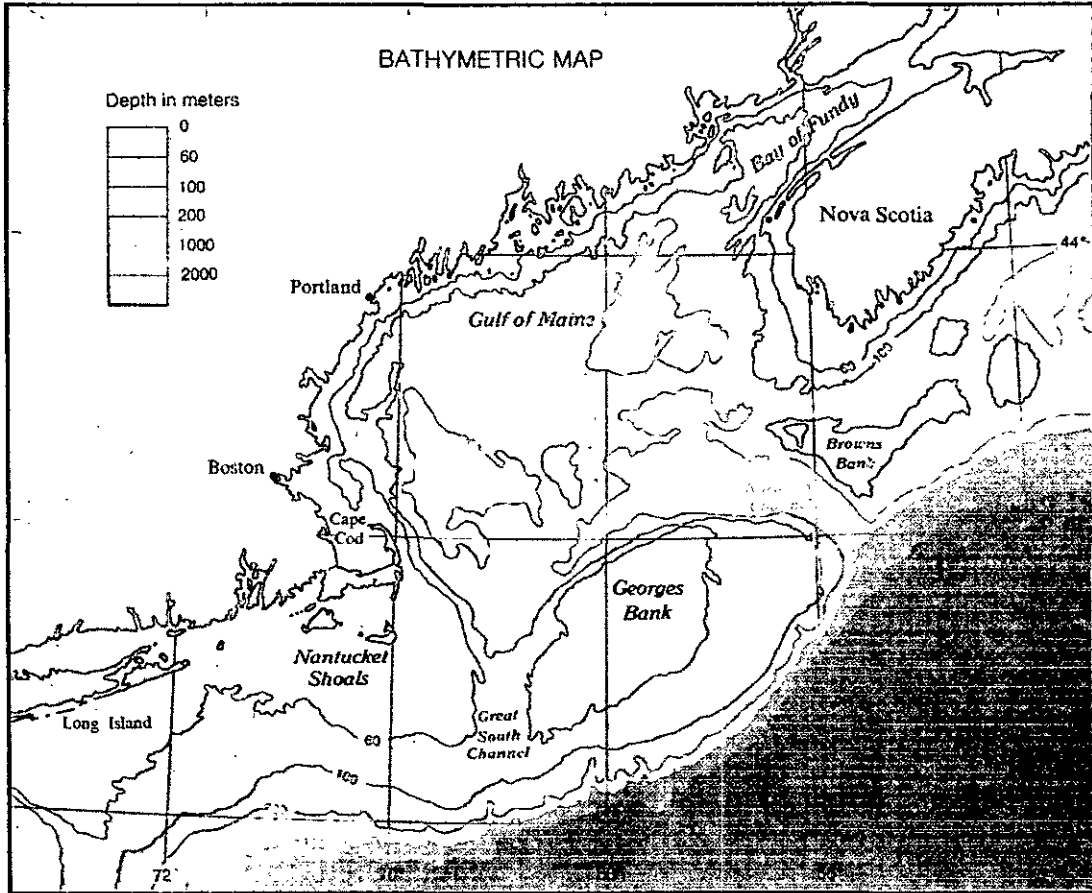
-  Basement trend lines derived from aeromagnetic, gravity, seismic and field observations
-  East Coast Magnetic Anomaly
-  Belt of seismicity

Source: Extrapolated from J. S. Schlee and K. D. Klitgord: "Geologic Setting of the Georges Bank Basin" in P. A. Scholle and C. R. Wenkam, eds.: *Geological Studies of the COST Nos. G-1 and G-2 Wells, United States North Atlantic Outer Continental Shelf*. United States Department of the Interior, Geological Survey Circular 881, 1982; J. D. Keppie: *Geological Map of the Province of Nova Scotia*. Halifax, Department of Mines and Energy, 1979.

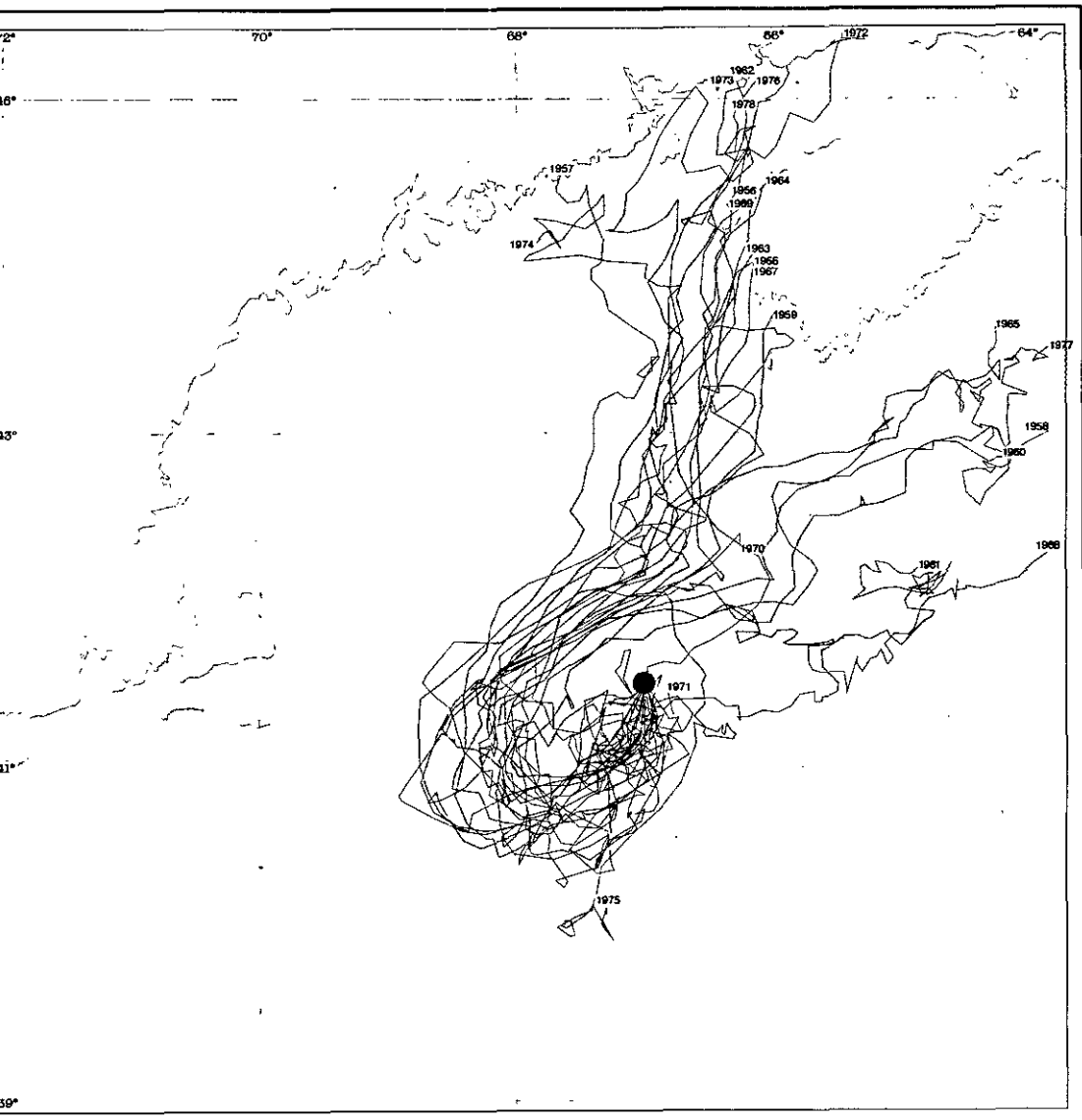
Depths in Metres  
 Projection - Mercator  
 Scale - 1 : 4 700 000 at 41°N

Figure 15




The American  
Geographical  
Society Bathymetric  
Map of the Gulf of  
Maine Area, 1974



AMERICAN GEOGRAPHICAL SOCIETY, 1974



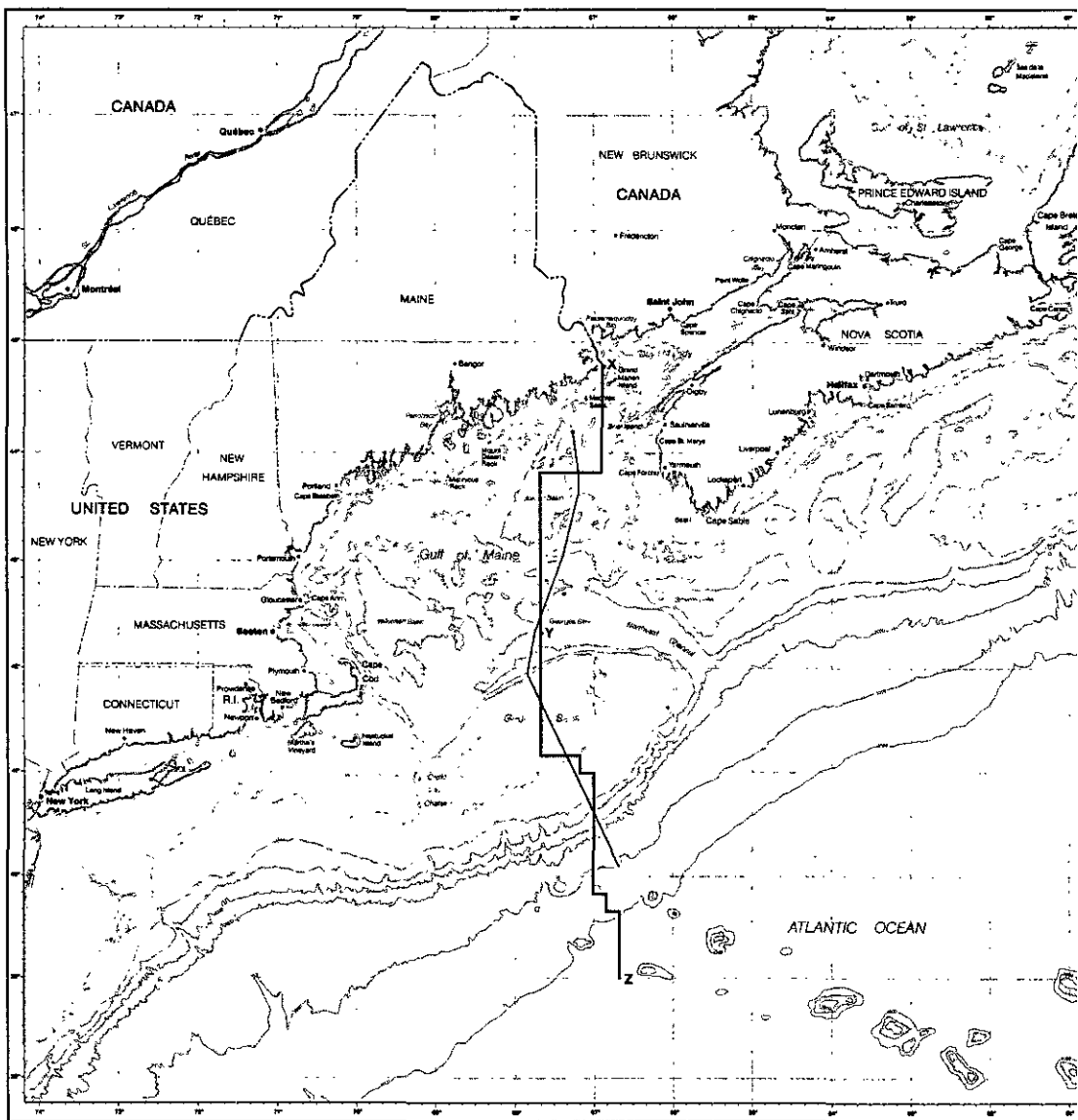
**Figure 16**  
**Projected Dispersion of Oil from a Spill on Georges Bank**

-  20-day trajectory
-  40-day trajectory
-  80-day trajectory

A computer model using 23-year wind and current data was used to calculate these surface-oil trajectories. Oil spilled on Georges Bank in the warm seasons moves towards the Nova Scotia coast. In the cold seasons, it drifts out to sea, affecting neither the Canadian nor United States coasts.

Source: D. J. Lawrence and R. W. Trites: "Surface Oil Spill Trajectory Modelling for Georges and Browns Banks." *Canadian Technical Report of Hydrography and Ocean Sciences*, No. 29, 1983.

Projection—Mercator  
 Scale—1 300 000 at 41°N

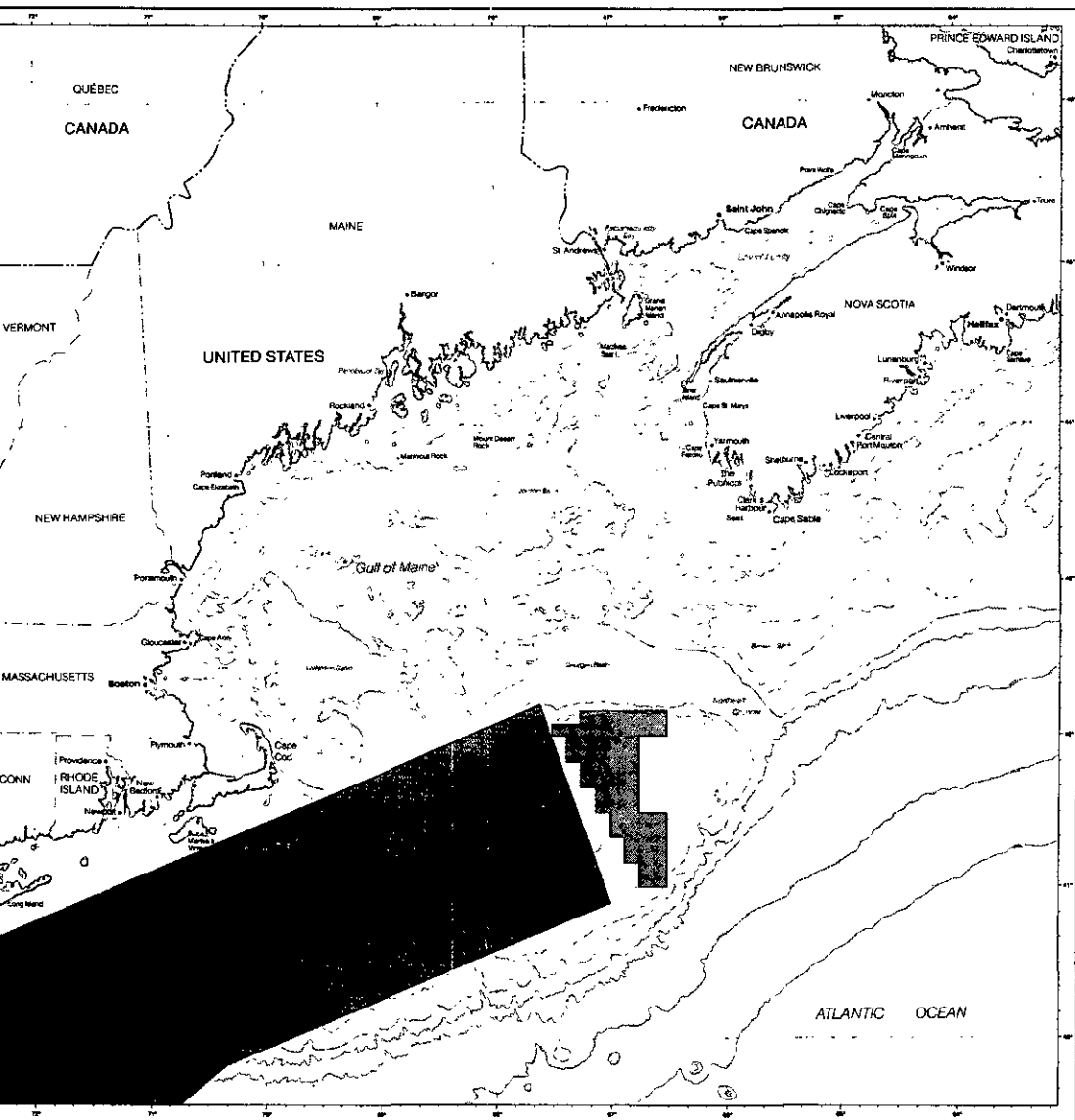


**Figure 18**


**NACFI/ICNAF/  
NAFO Dividing  
Lines and the  
Canadian Line**


The line illustrated here in red is a composite of the line used by the International Commission for the Northwest Atlantic Fisheries (ICNAF) and the Northwest Atlantic Fisheries Organization (NAFO) to divide subarea 5 from subarea 4 (segment X-Y), and of the line used by Canada and the United States to divide statistical units 5Zeh and 5Zen from statistical units 5Zej and 5Zem (segment Y-Z). These four statistical units are based on units first established by the North American Council on Fishery Investigations (NACFI) in 1931 to divide "natural fishing concentrations". While Canada does not admit the relevance of NACFI/ICNAF/NAFO dividing lines in the determination of the single maritime boundary in the Gulf of Maine area, it may be seen that the Canadian line is consistent with the divisions used by these organizations.

Depths in Metres  
Projection—Mercator  
Scale—1:4 700 000 at 41°N



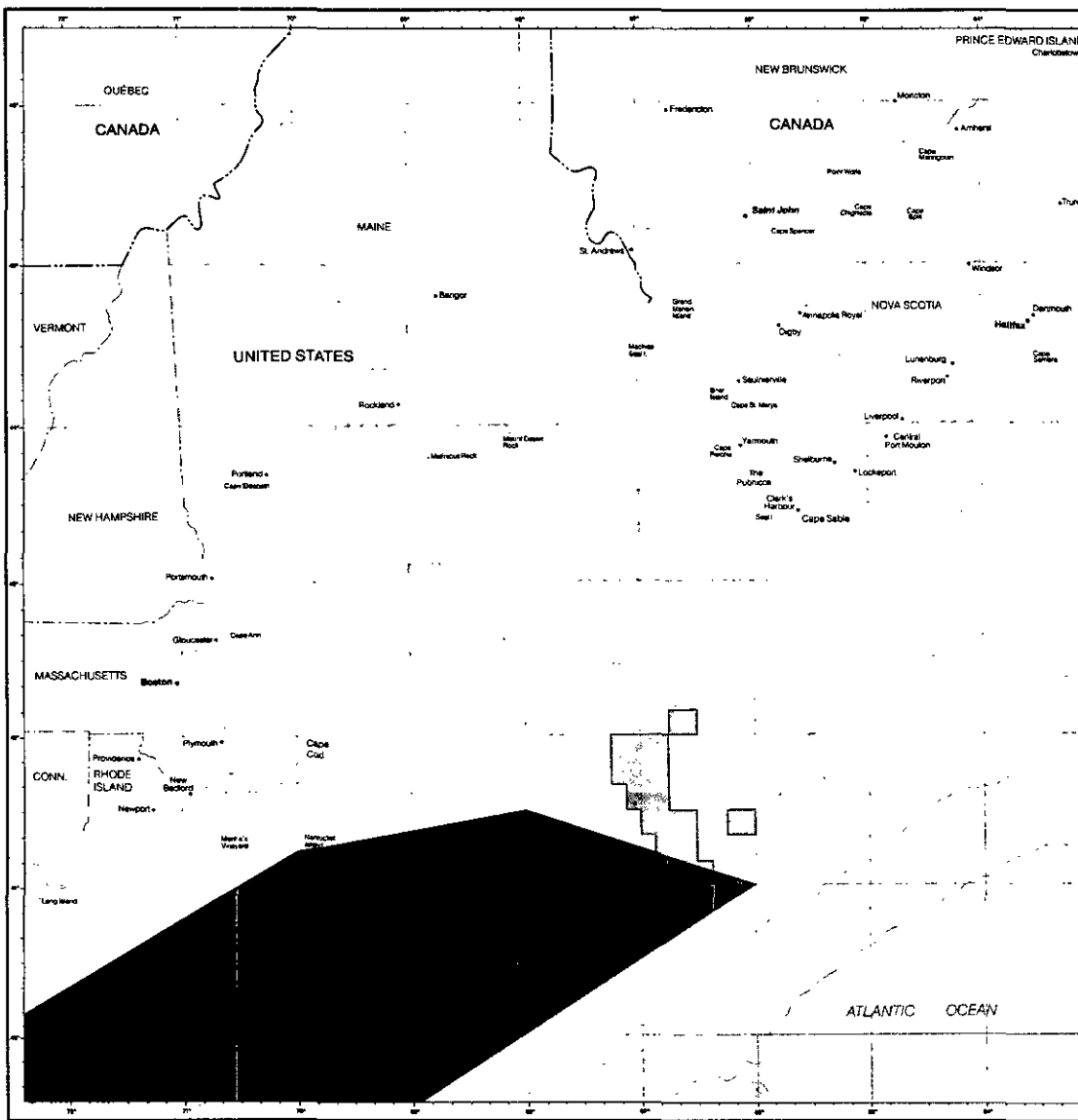
**Figure 19**  
**Licences and Permits issued by Canada and the United States in 1965 and 1967 on the Basis of Equidistance**

 Area covered by Canadian exploratory licence 927 issued to Chevron in 1965

 Area covered by United States geophysical permit E3-67 issued to a consortium headed by Chevron in 1967

Note: The coordinates describing the area within which the United States authorized geophysical surveys were obtained from the materials filed with the letter of 20 January 1983 from the Agent of the United States to the Registrar of the Court.

Depths in Metres  
 Projection - Mercator  
 Scale - 1:2 240 000 at 41°N



**Figure 20**

**Licences and Permits Issued by Canada and the United States in 1969 on the Basis of Equidistance**



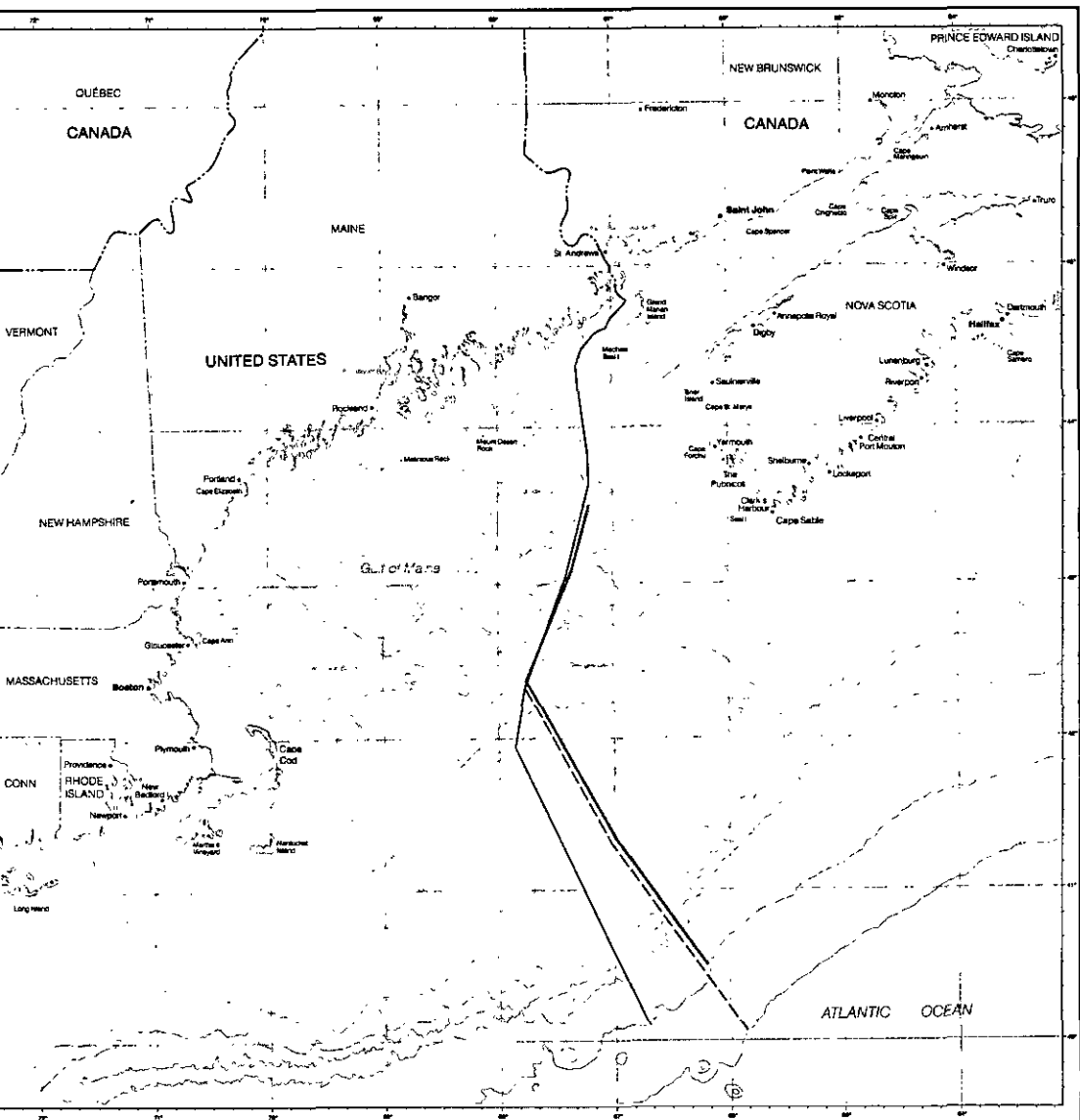
Areas covered by Canadian exploratory licence 1283 issued to Chevron in 1969






Area covered by United States geophysical permit E2-69 issued to Chevron acting as agent for Digicon in 1969

Note: Documentation pertaining to United States permit E2-69 notes that "portions of two of the lines extend to the Canadian side of the BLM line". The coordinates describing the area within which the United States authorized geophysical surveys were obtained from the materials filed with the letter of 20 January 1983 from the Agent of the United States to the Registrar of the Court and from materials obtained from United States Government agencies.

Depths in Metres  
Projection - Mercator  
Scale - 1:3 240 000 at 41°N

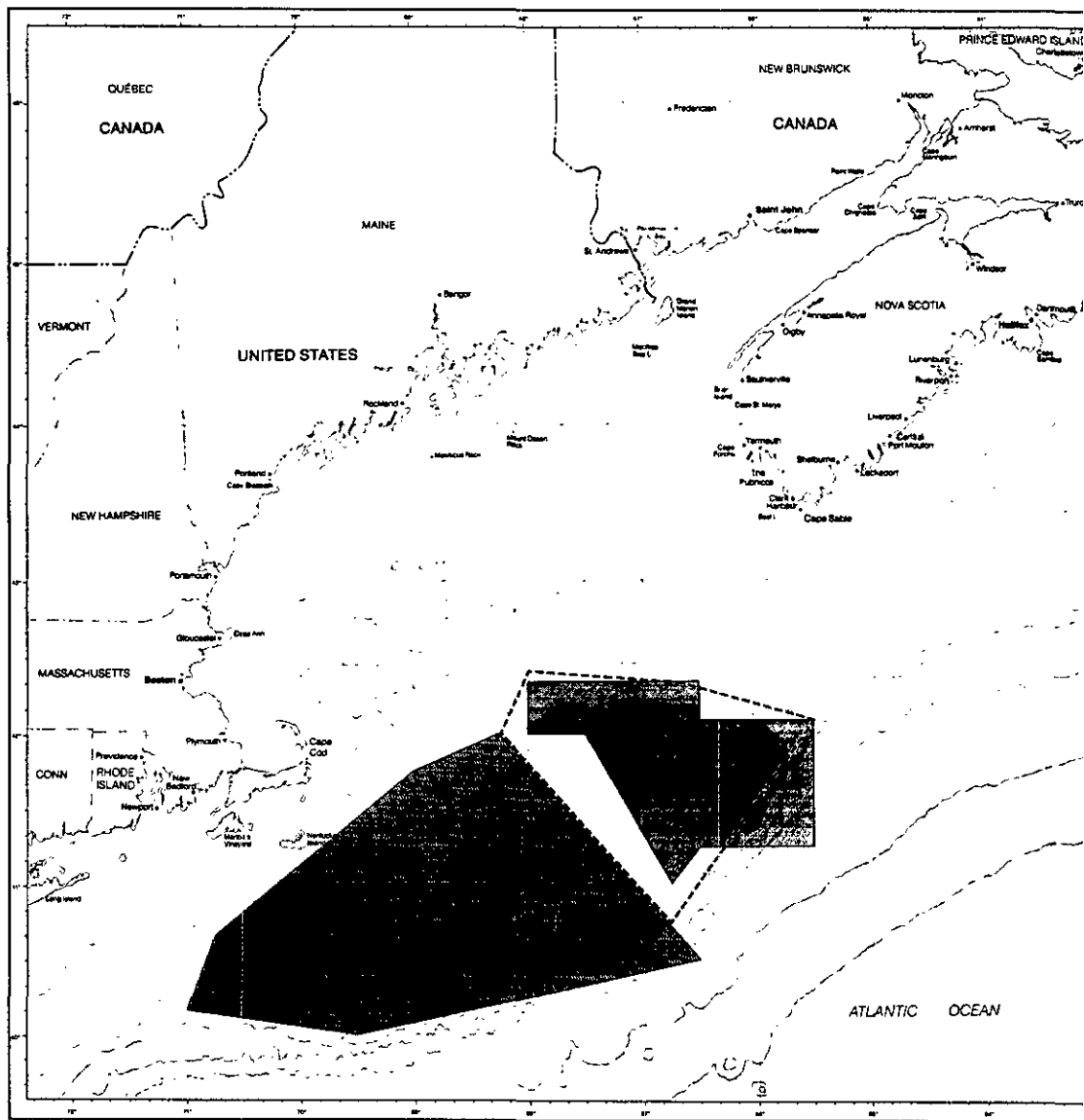


**Figure 21**  
**The United States**  
**BLM Line**

 BLM line  
 Canadian line  
 Equidistance line used by Canada in issuing oil and gas exploratory permits and licences in the 1980s.

Note: The BLM line has been drawn from the materials filed with the letter of 20 January 1983 from the Agent of the United States to the Registrar of the Court, from materials obtained from United States Government agencies and from oil company materials. See Reply, Annexes, Vol. II, Part III.

Depths in Metres  
 Projection—Mercator  
 Scale—1:3 240 000 at 41°N



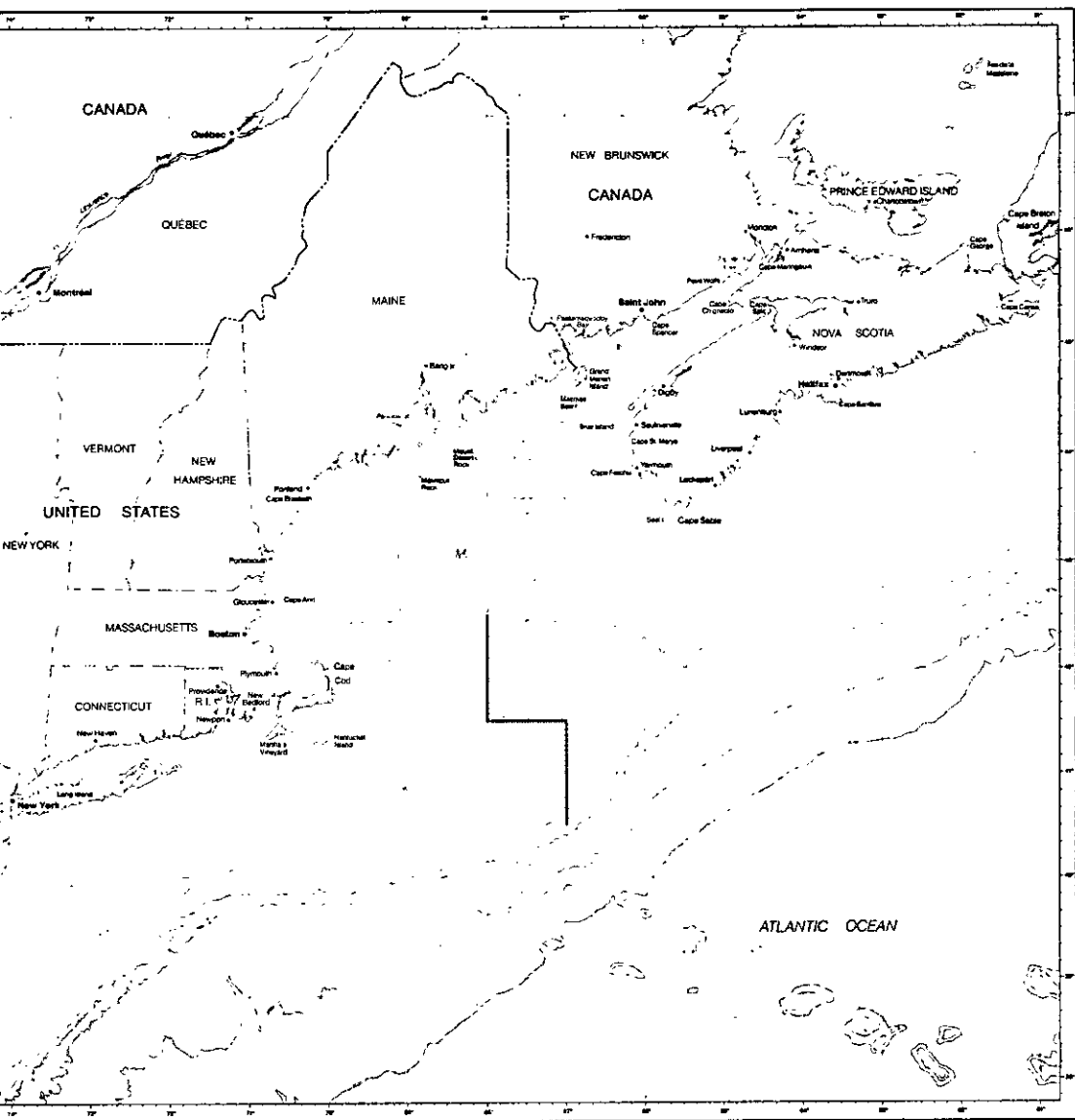
**Figure 22**  
**Licences and Permits Issued by Canada and the United States in 1975 on the Basis of Equidistance**

- Area covered by Canadian exploratory licence 2414 issued to Digicon in 1975
- Area covered by United States geophysical permit E3-75 issued to Digicon in 1975
- Extended area in which the United States subsequently authorized geophysical work by Digicon

Note: The coordinates describing the area within which the United States authorized geophysical surveys were obtained from the materials filed with the letter of 20 January 1983 from the Agent of the United States to the Registrar of the Court and from materials obtained from United States Government agencies.

Depths in Meters  
 Projection - Mercator  
 Scale - 1:3 240 000 at 41°N





**Figure 23**  
**The Kennedy Line**

This line was advanced by Senator Edward Kennedy in a proposed amendment to the 1979 Agreement on East Coast Fishery Resources. Pursuant to this proposed amendment, Canada would have exercised primary management responsibility for scallops east of the Kennedy line, instead of east of  $68^{\circ}30'W$  as provided for in the Agreement.

Distance in Meters  
Projection—Mercator  
Scale—1:4 700 000 at 41°N

**Figure 25**

**Corrected Version  
of Figure 1, Annex 4  
to the United States  
Counter-Memorial  
Comparing Total  
Catches of Canada  
and the United  
States on Georges  
Bank, 1964-1981**

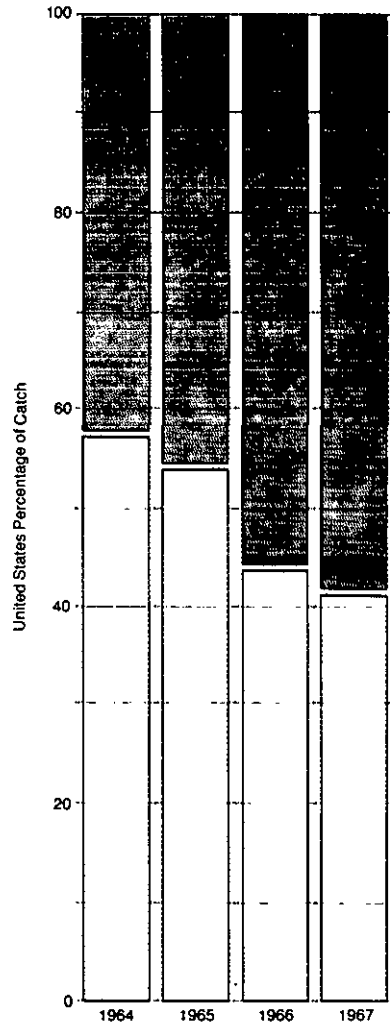


Canadian percentage of catch



United States percentage of catch

Note: In calculating its catches on Georges Bank, the United States included catches from ICNAF statistical units 5Zeg and 5Zeo, which are situated west of the Great South Channel and do not form part of Georges Bank. It also recorded scallop catches by "meat weight" while recording all other catches by "round weight". This Figure corrects these United States errors by using ICNAF statistical units 5Zej, 5Zem, 5Zeh and 5Zen to define Georges Bank, and round weight to record all landings.



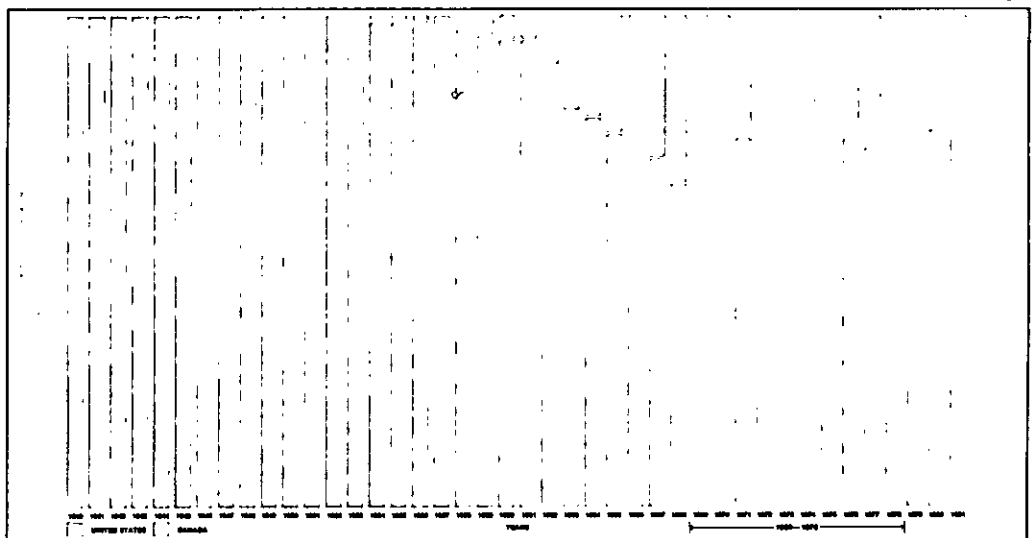
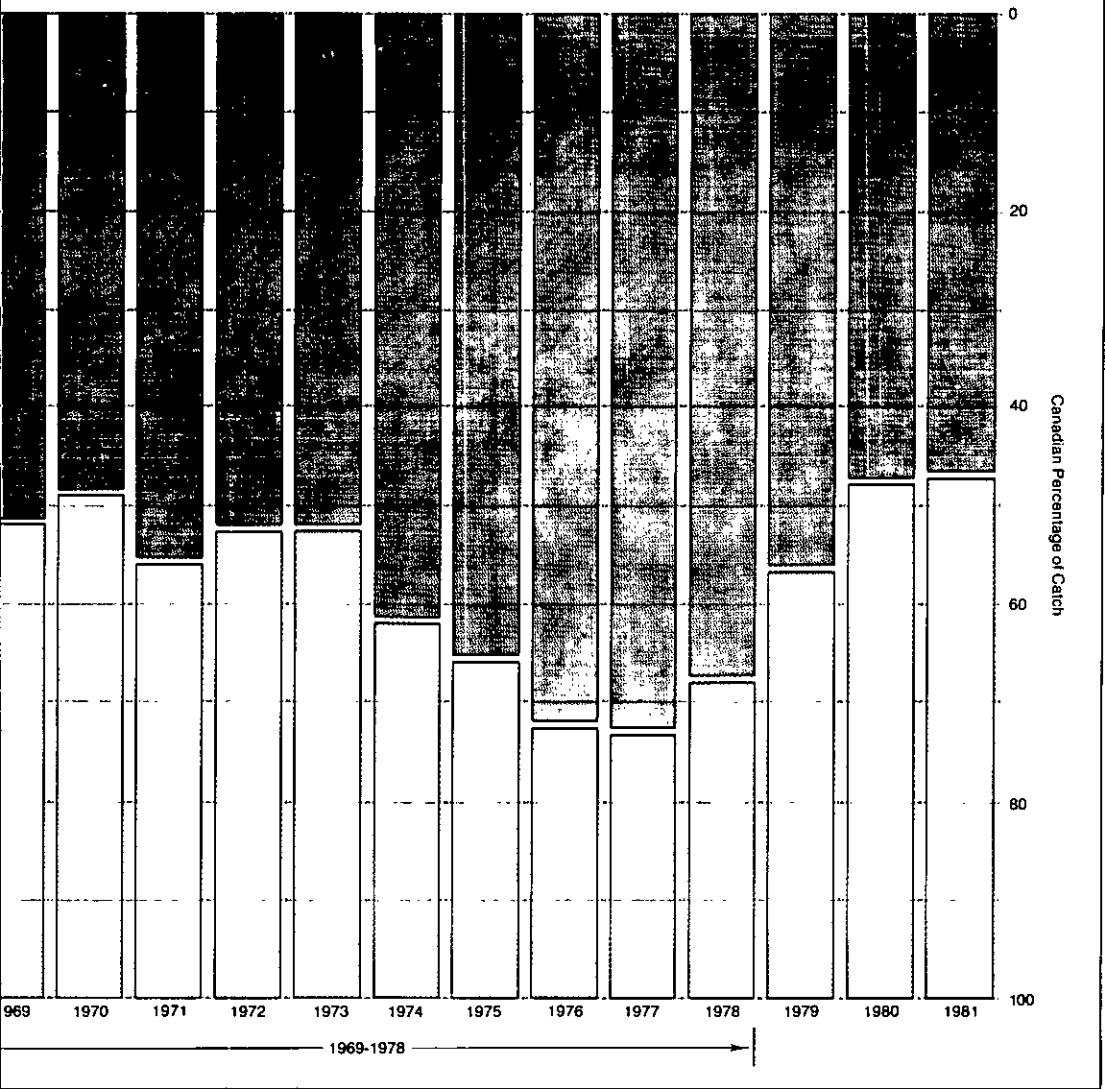
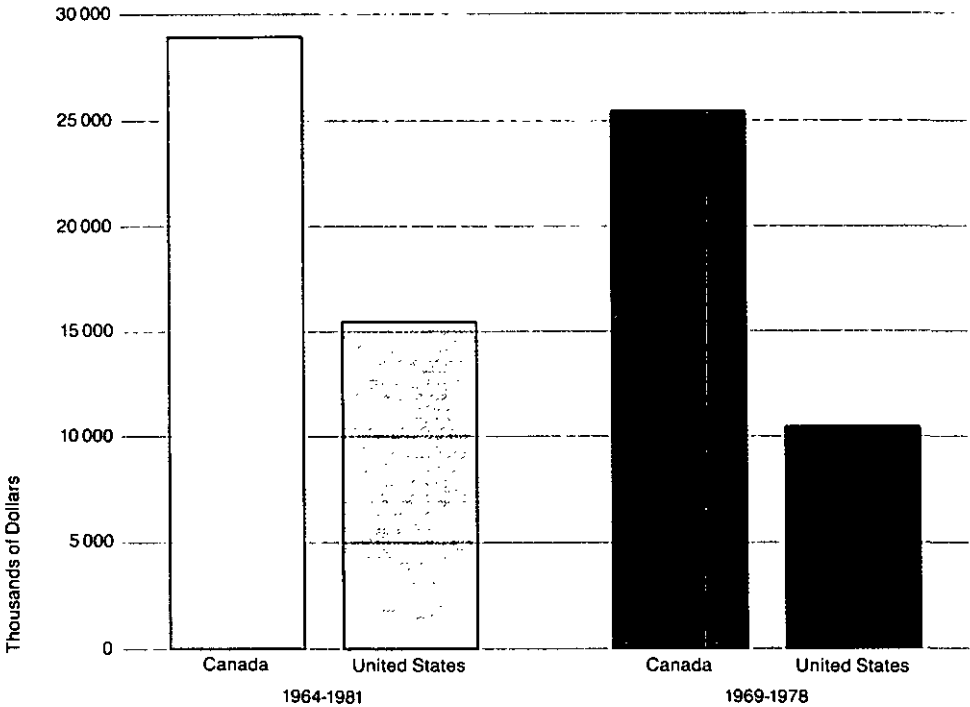
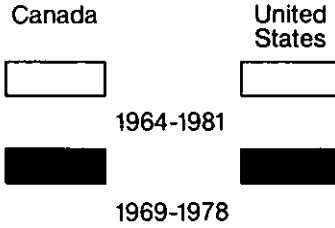


Figure 26

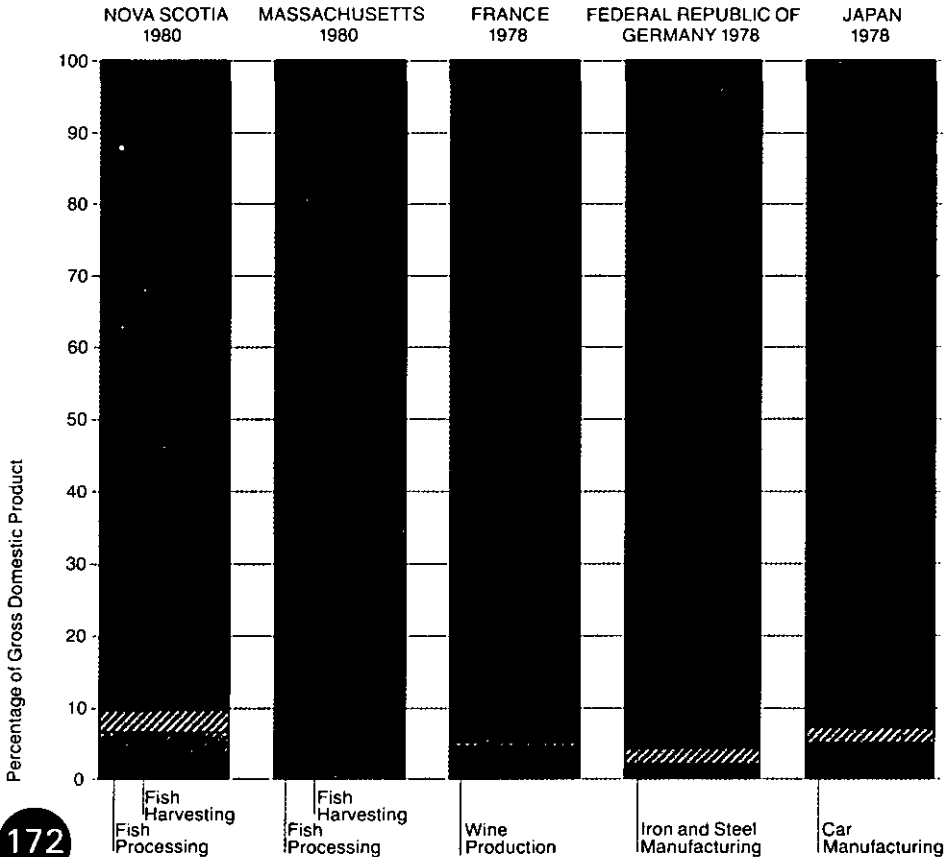
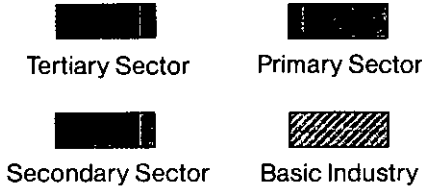
Comparison of  
the Average Annual  
Value of Total  
Catches by Canada  
and the United  
States on the whole  
of Georges Bank,  
1964-1981 and  
1969-1978



Note: Value is calculated using  
Canadian offshore prices  
recorded annually at  
Lunenburg.

Figure 27

Relative Importance  
of Basic Industries  
in the Economies of  
Nova Scotia,  
Massachusetts and  
Selected  
Industrialized  
States



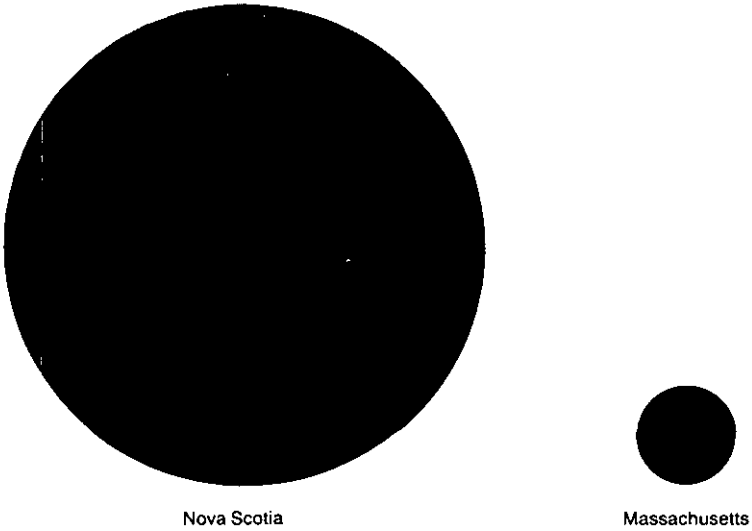
---

Figure 28

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Comparison of the  
Relative Importance  
of the Georges  
Bank Fisheries to  
Nova Scotia and  
Massachusetts,  
1980

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Note: Relative importance is calculated by dividing income derived from Georges Bank fisheries by total provincial or state income. See Reply Annexes, Vol. II, Part I, Appendix I, Table 3.

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Figure 29

The Perpendicular Method Applied to the Depiction of "the deep concavity that is the Gulf of Maine" in Figure 21 of the United States Counter-Memorial



Perpendicular lines

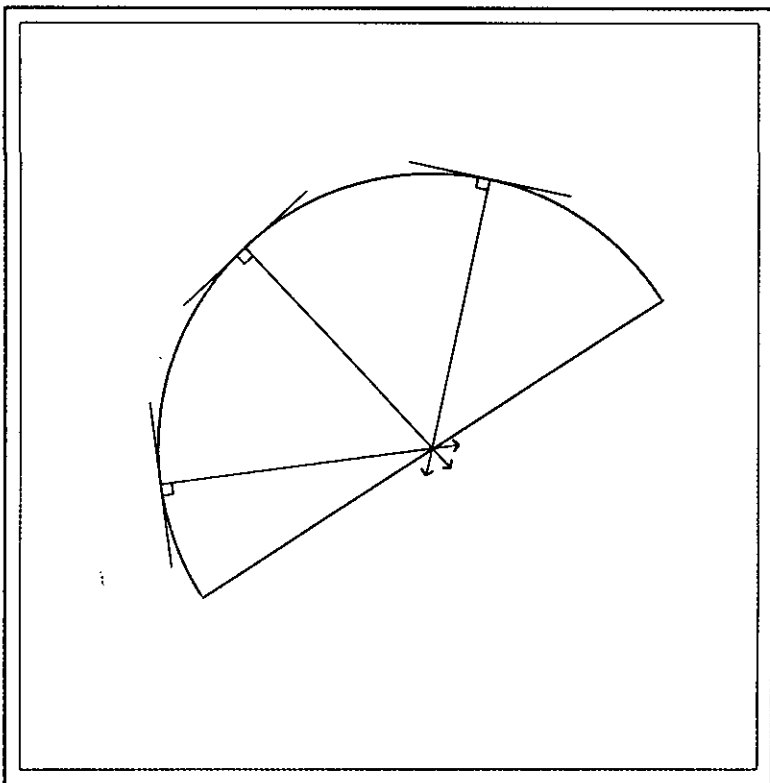


Canadian line

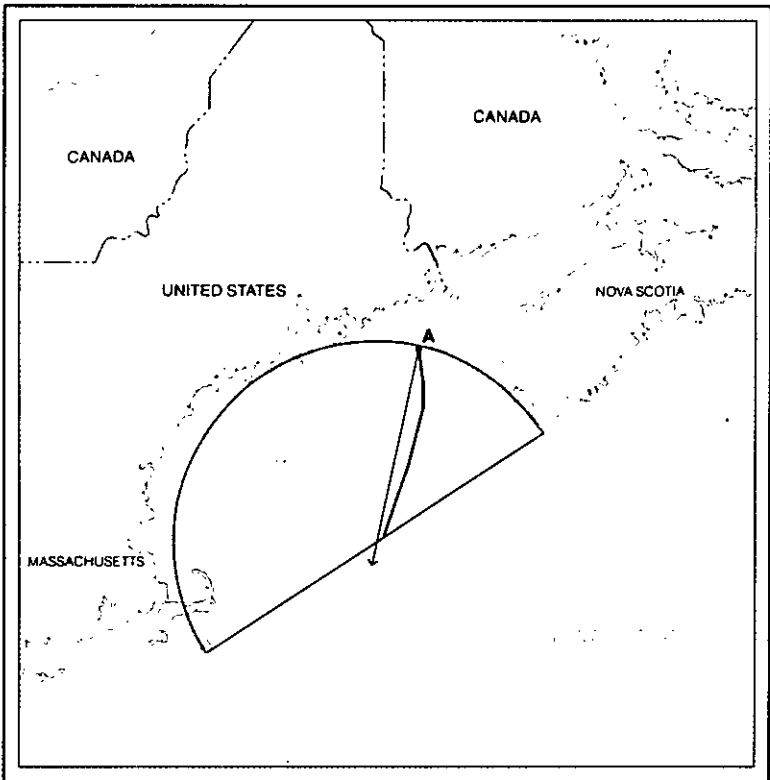


Hypothetical Gulf of Maine closing line

Note: Ignoring the Bay of Fundy, the United States depicts the Gulf of Maine as a semi-circular concavity. The only means of applying the perpendicular method to a semi-circular concavity is by drawing lines perpendicular to tangents to the semi-circle. A perpendicular to a tangent to the semi-circle at Point A would divide the waters within the Gulf in proportion to the length of the Parties' coastlines, if, as proposed by the United States, a hypothetical closing line across the mouth of the Bay of Fundy were to be substituted for the actual Fundy coastline.



A



B

Projection—Mercator  
Scale—1:7 300 000 at 41°N

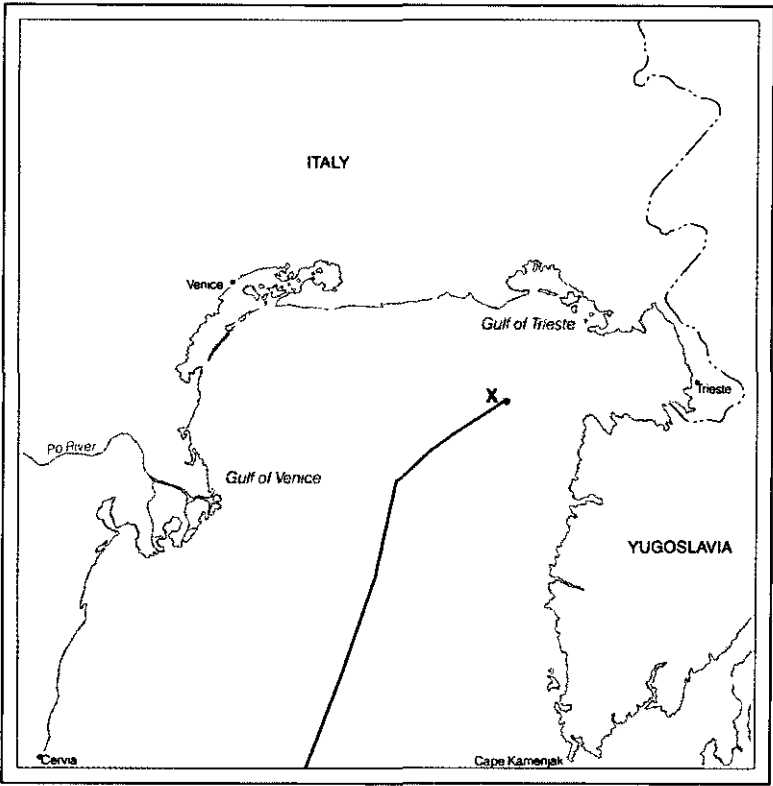


A

**Figure 30**

**Equidistance Lines  
in Deep Coastal  
Concavities: The  
Canadian Line in  
the Gulf of Maine  
Area and the  
Continental Shelf  
Boundary in the  
Gulf of Venice**





**B**

---

**A**  
Projection—Mercator  
Scale—1:7 300 000 at 41°N

**B**  
Projection—Mercator  
Scale—1:1 150 000

---



Figure 31

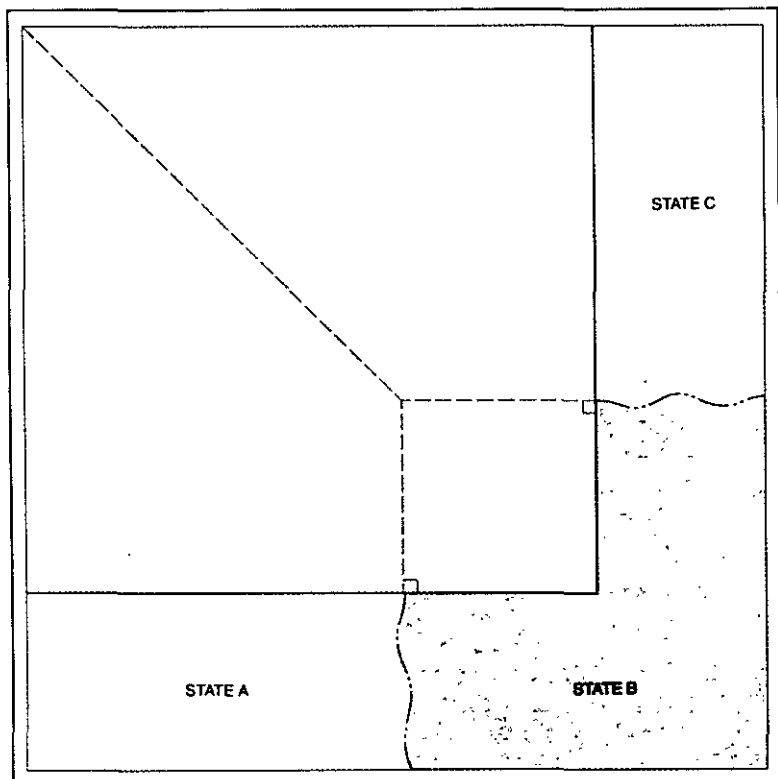
The Appropriateness of the Equidistance Method in a Coastal Concavity Depends on the Conjunction of Physical and Political Geography

**A**  
Equidistance lines between three States where the land boundaries are located on the flanks of a two-sided concavity

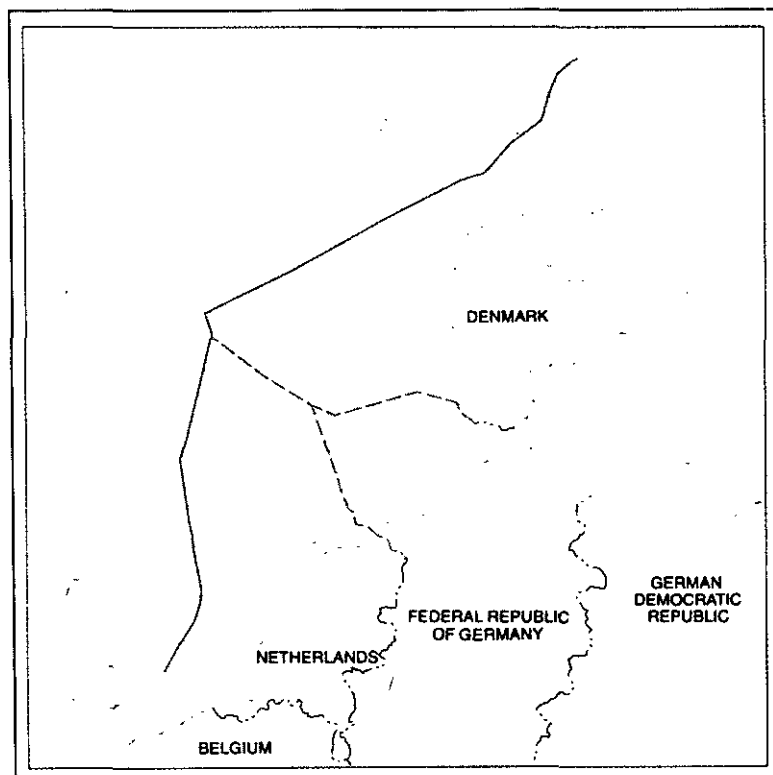
**B**  
Equidistance lines between the Netherlands, Federal Republic of Germany and Denmark

**C**  
Equidistance line between two States where the land boundary is located in the corner of a two-sided concavity

**D**  
Equidistance line between two hypothetical States in the North Sea where the land boundary is located in the corner of the concavity

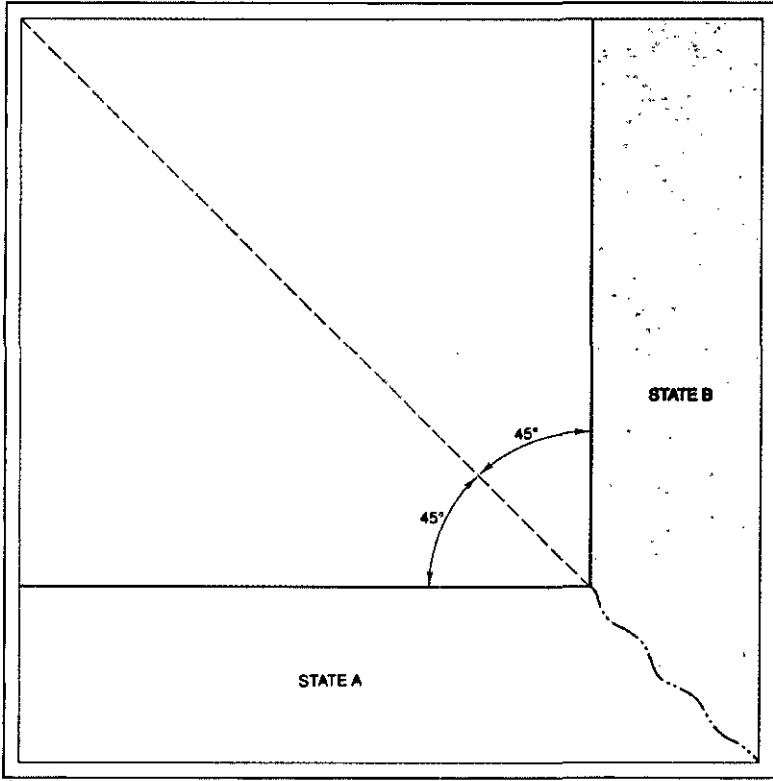


**A**

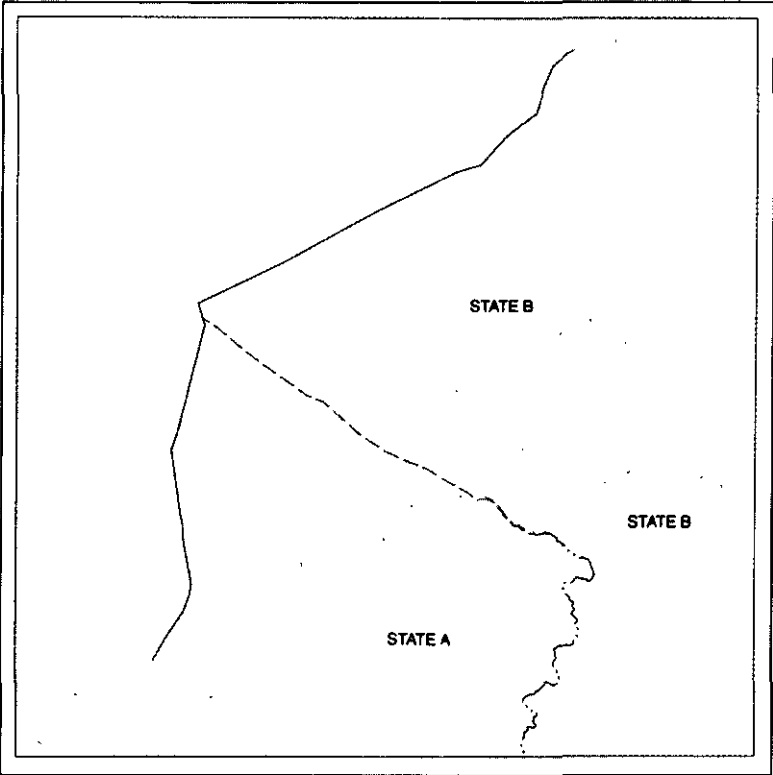


**B**

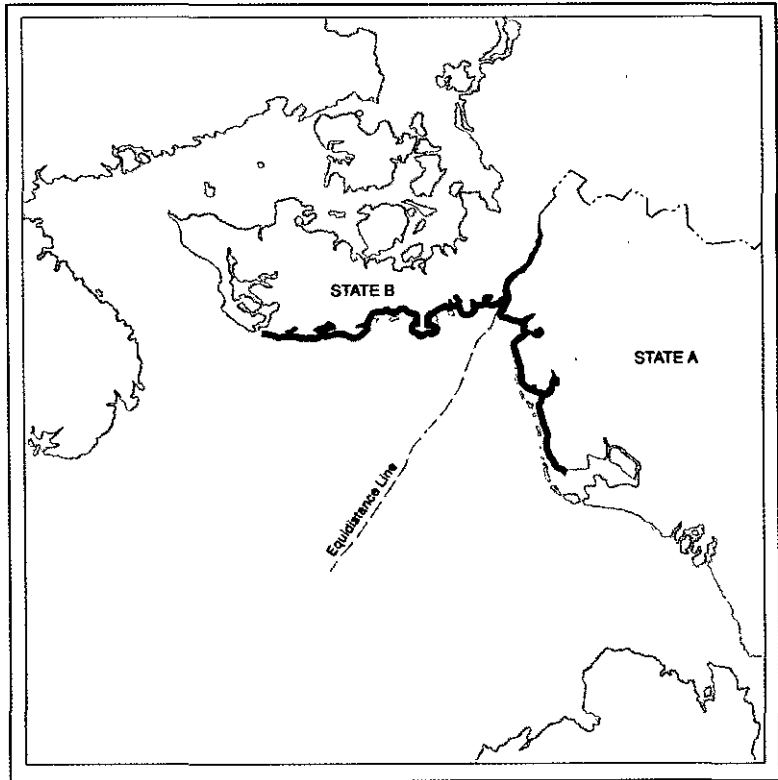
**B and D**  
Projection—Mercator  
Scale—1:10 000 000 at 48°N



C



D



**A**

**Figure 32**

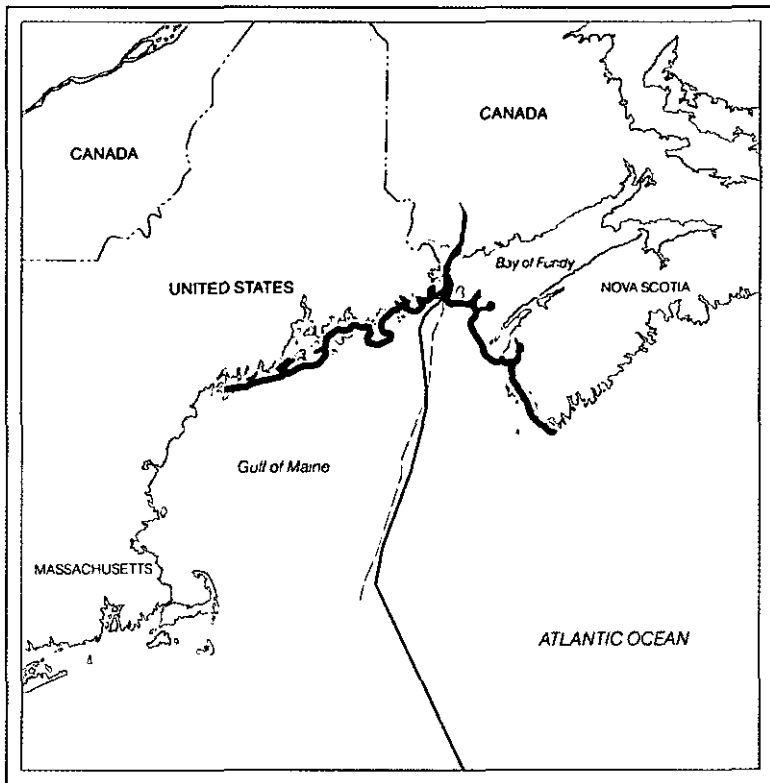
**Equidistance Is Appropriate When the Land Boundary Terminus Between Two States Is Located in the Corner of a Concavity**

**A**  
Equidistance line between two hypothetical States in the North Sea (figure 31D turned on its side)

**B**  
Coastline and equidistance line from maplet A superimposed on the Gulf of Maine area



Canadian line



**B**

---

**A**  
Projection—Mercator  
Scale—1:10 000 000 at 48°N

**B**  
Projection—Mercator  
Scale—1:7 300 000 at 41°N

---

**Figure 33**

**Delimitation in the Bay of Biscay Compared to the Gulf of Maine Area**

**A** Point Q3 at 200 metres, at the outer edge of Georges Bank, is at the same depth as Point Q3 on the Bay of Biscay boundary. Point R at 3600 metres, beyond the terminus of the Canadian line, is at the same depth as Point R on the Bay of Biscay boundary. As may be seen, Point T, at 5000 metres, the same depth as Point T on the Bay of

Biscay boundary, lies outside the area covered by the Canadian basemap of the Gulf of Maine Area.

**Note:** The bathymetry used in this illustration represents the bathymetry of the Bay of Biscay area as it was known at the time of the negotiation of the continental shelf boundary.

**B**



Hypothetical closing line



Agreed continental shelf boundary



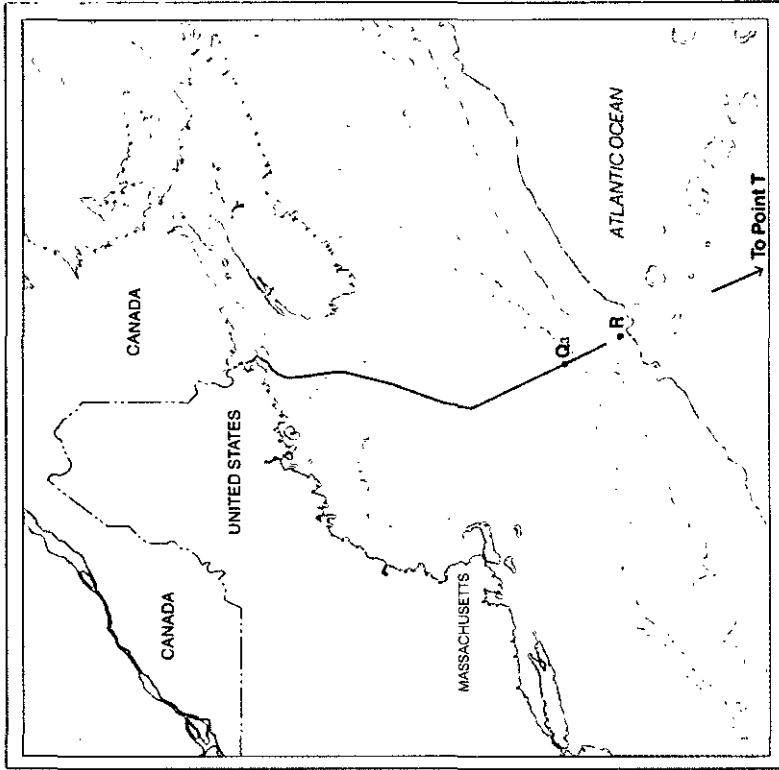
Joint exploitation zone

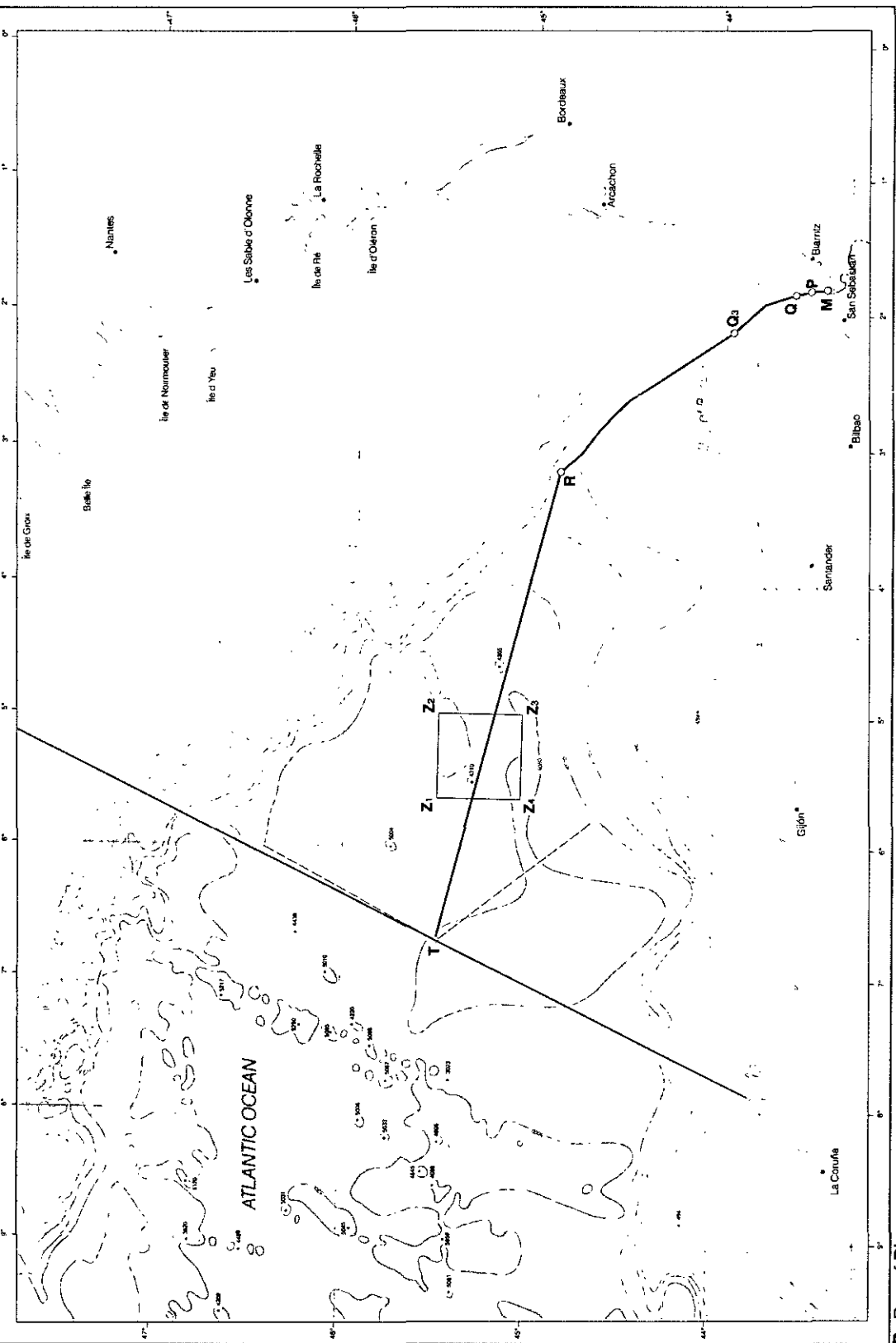


Hypothetical equidistance construction lines

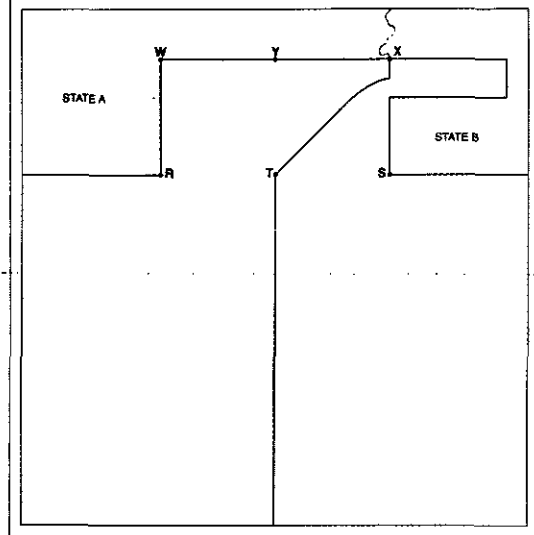
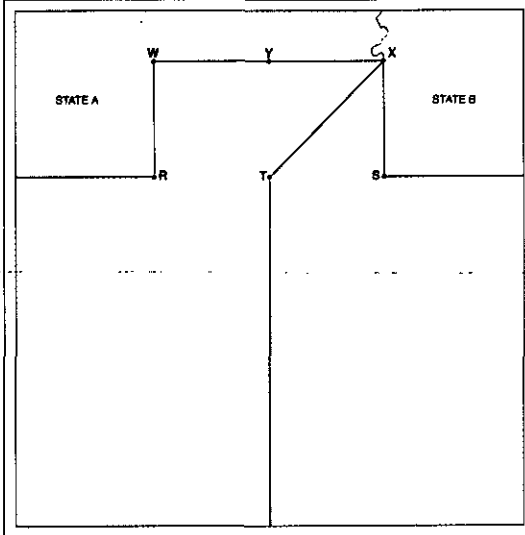
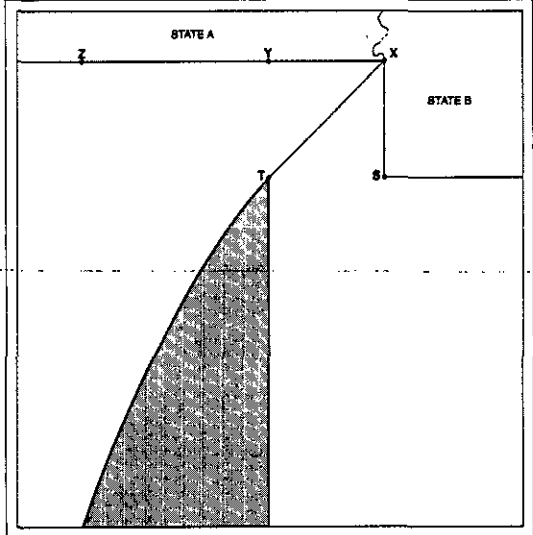
**A** Depths in Metres  
Projection - Mercator  
Scale - 1:10,000,000 at 41°N

**B** Depths in Metres  
Projection - Mercator  
Scale - 1:12,000,000 at 45°N





**B** Bay of Biscay








**A**

**B**

**C**

**Figure 34**  
**The Influence of Convexities and Concavities on the Course of an Equidistance Line: The Cut-Off Effect**

-  Strict equidistance line
-  Equidistance line discounting incidental special features
-  Canadian line
-  200-mile limit
-  Area of cut-off

**A** The cut-off of a long recessive coast by a shorter convex coast in a two-sided concavity

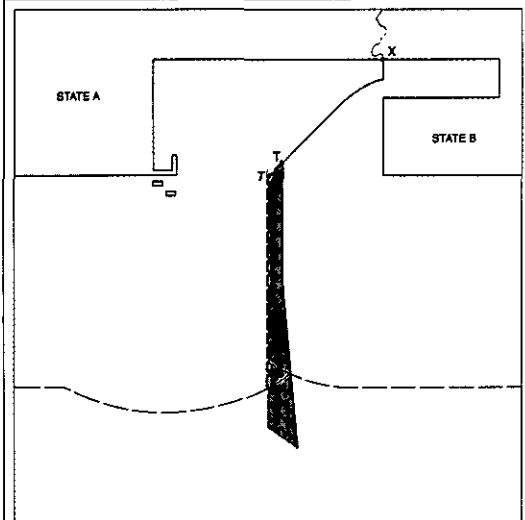
**B** The cut-off of the recessive coast is eliminated by the convex coast forming the third side of the concavity

**C** A markedly concave major feature forming one corner of a multi-sided concavity must be taken into account in assessing any cut-off effect

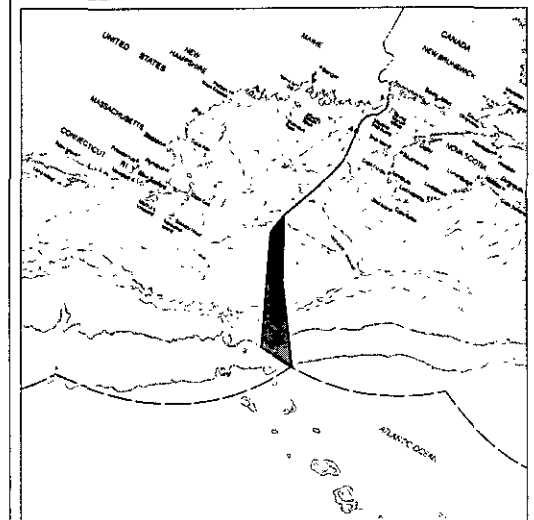
**D** Incidental special features protruding from one coastal wing cut off the opposite coastal wing from sea areas appertaining to it

**E** The Canadian line produces an equitable result in the Gulf of Maine area by discounting the effect of incidental special features

**D**

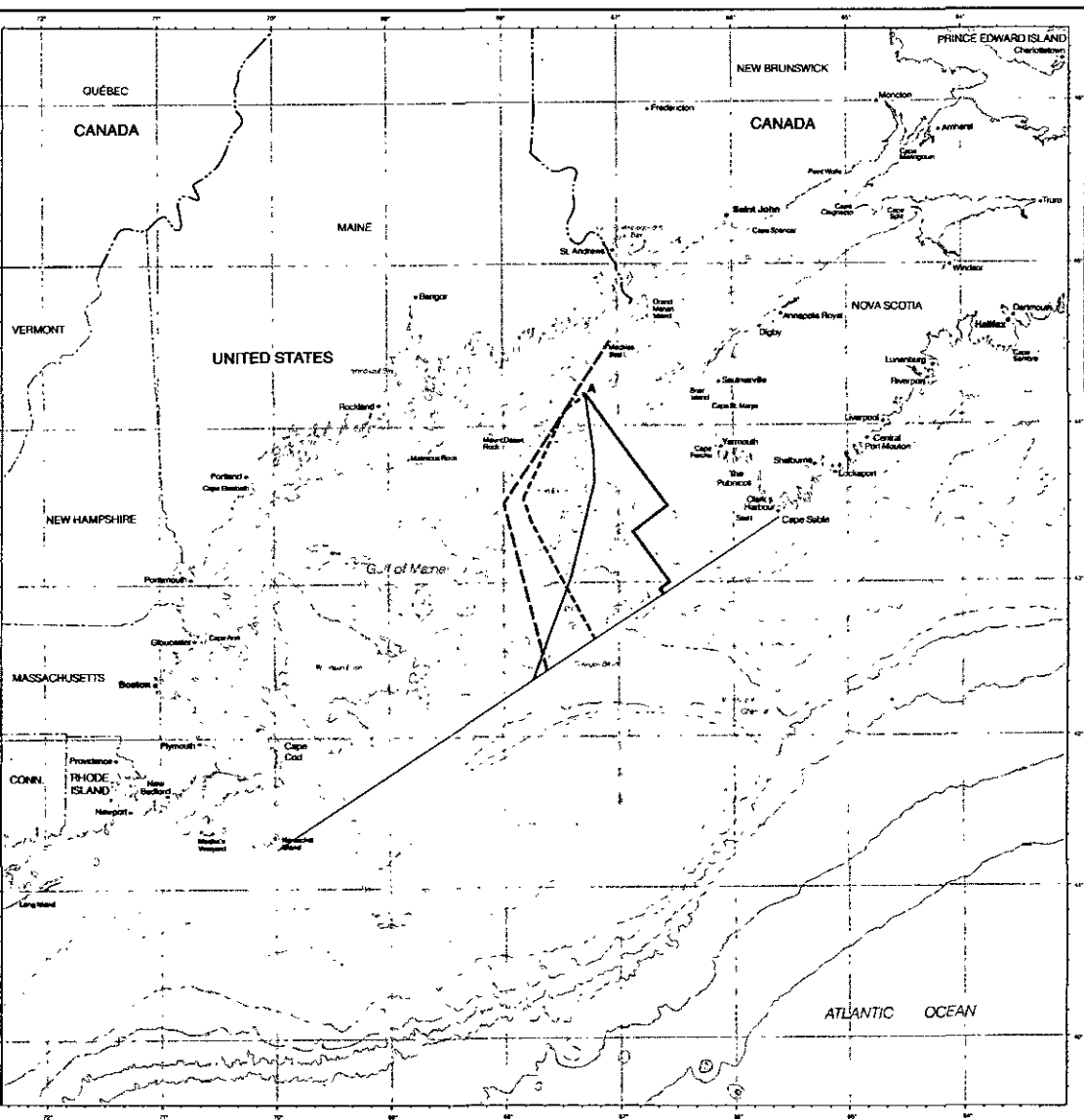


**E**








Distans in Metres  
 Projection - Mercator  
 Scale - 1 : 9 000 000 at 41°N

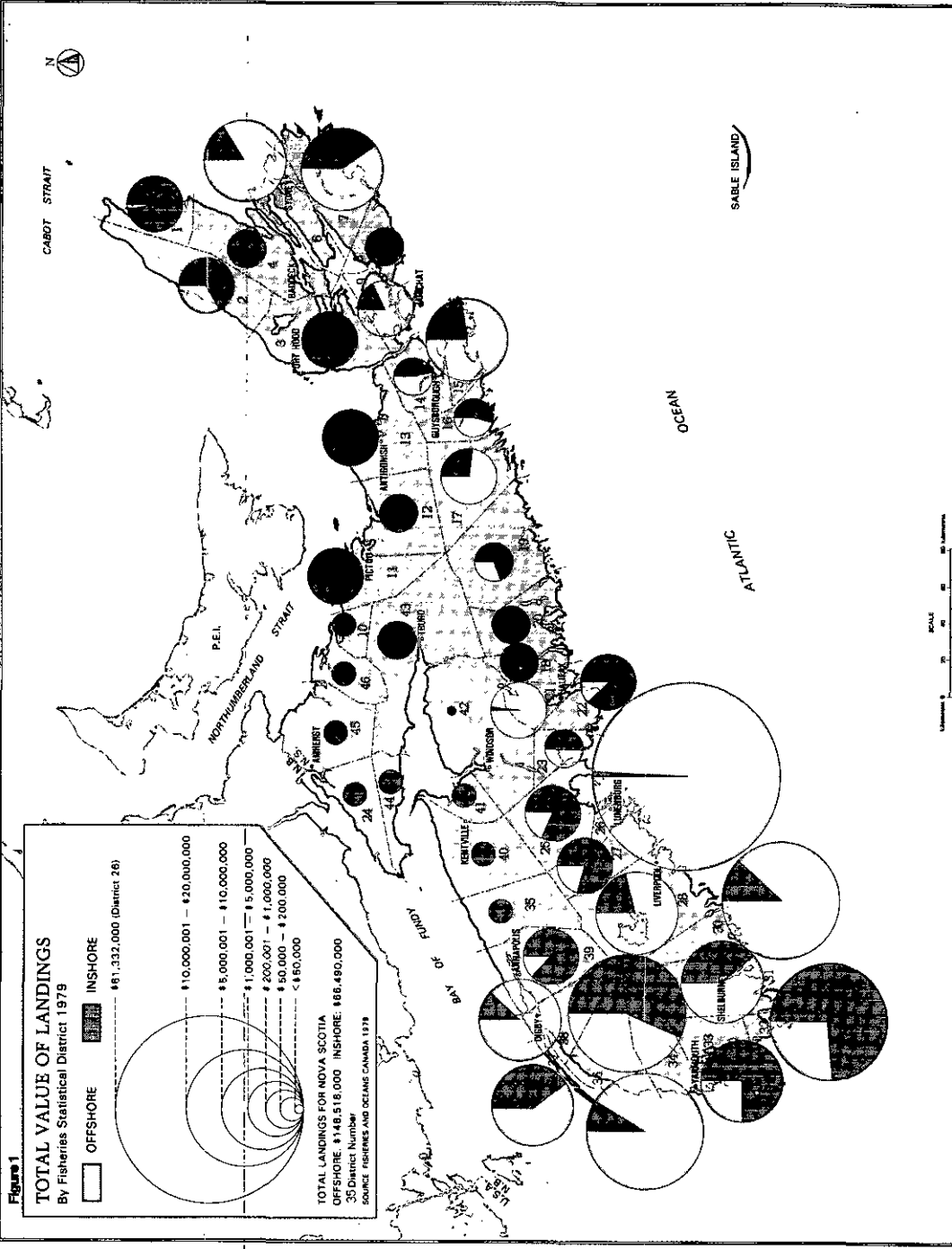




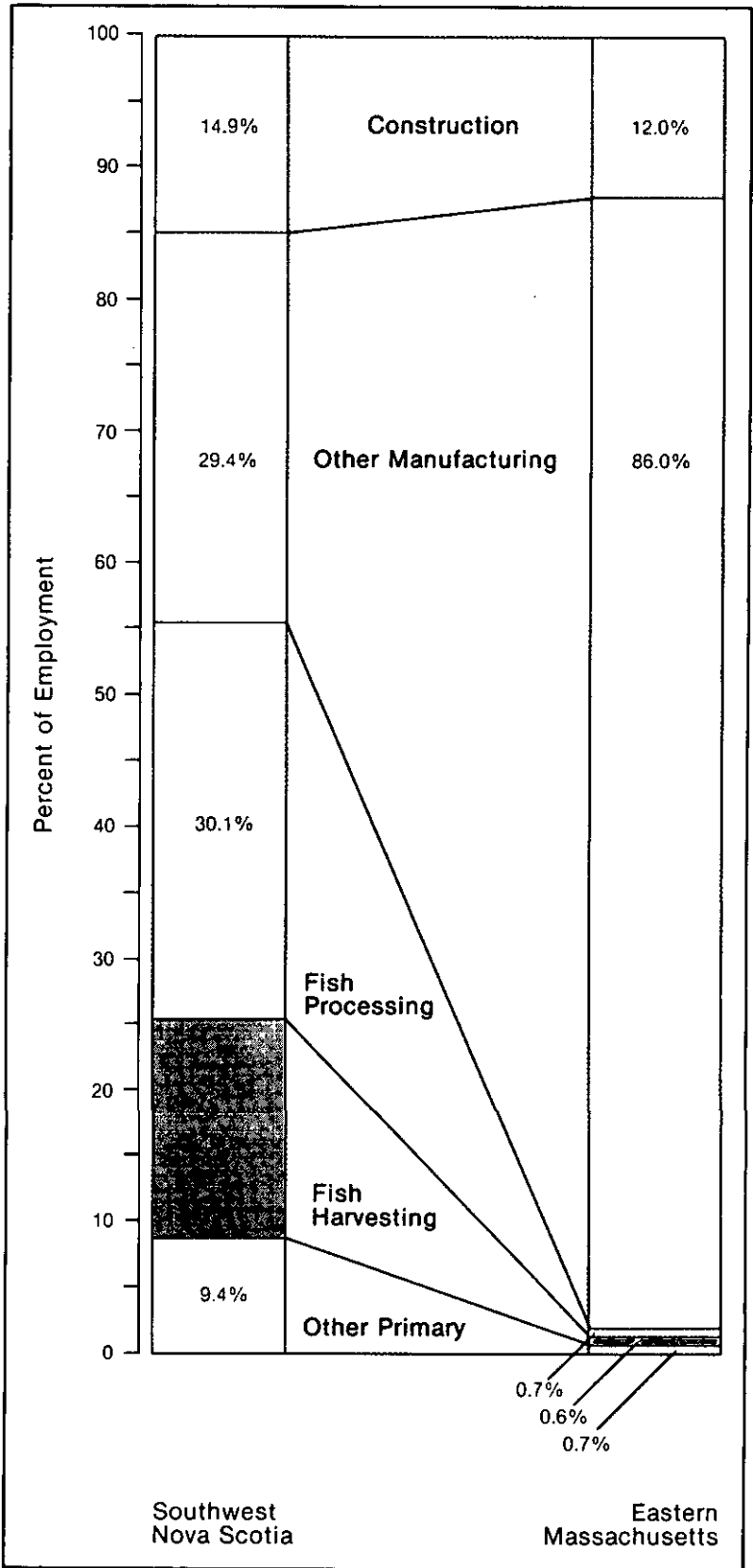
**Figure 35**  
**The Successive**  
**United States Lines**  
**in the Inner Area**

-  1974 "Law Enforcement Line to Protect the Lobster of the United States Continental Shelf"
-  1976 United States Northeast Channel line
-  1982 United States "adjusted perpendicular line"
-  Canadian line
-  Hypothetical Gulf of Maine closing line

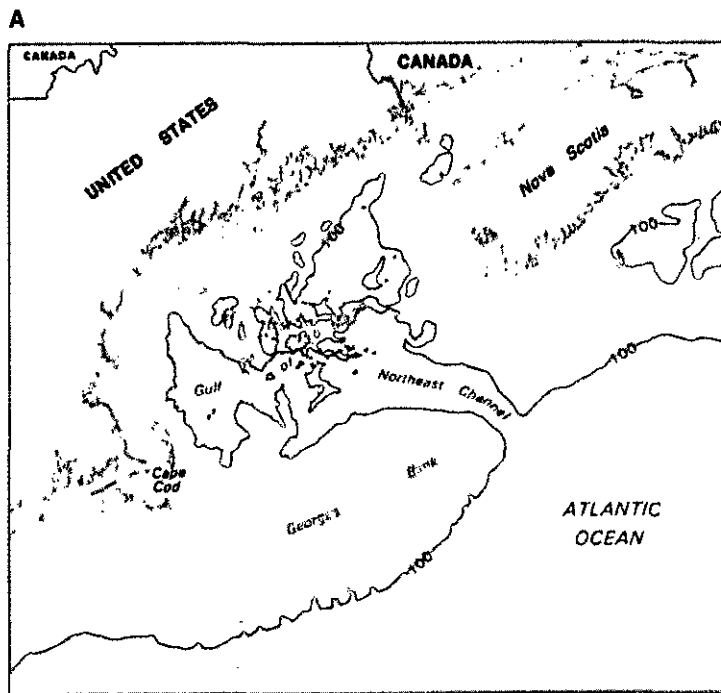
Depths in Metres  
 Projection - Mercator  
 Scale - 1 : 3 240 000 at 41°N



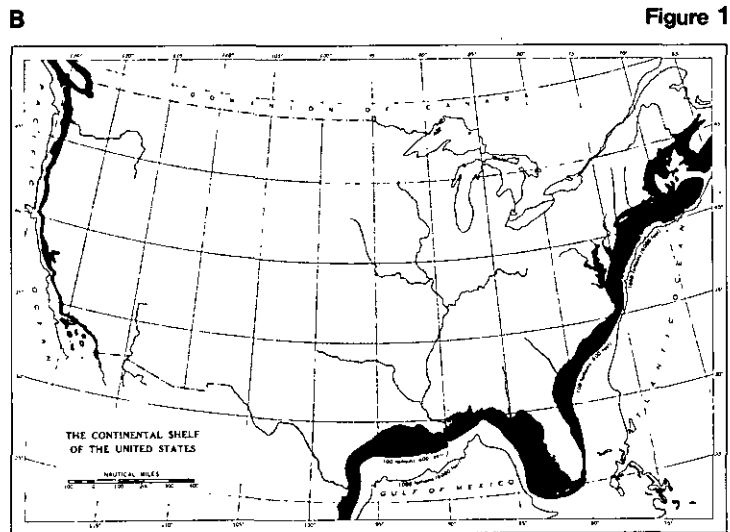
**Figure 6**  
**Comparison of Employment Opportunities in the Primary and Secondary Sectors of Southwest Nova Scotia and Eastern Massachusetts**



**DEPICTIONS OF THE CONTINENTAL SHELF DEFINED AS THE 100-FATHOM-DEPTH CONTOUR FROM 1945 UNTIL THE FIRST UNITED NATIONS CONFERENCE ON THE LAW OF THE SEA**

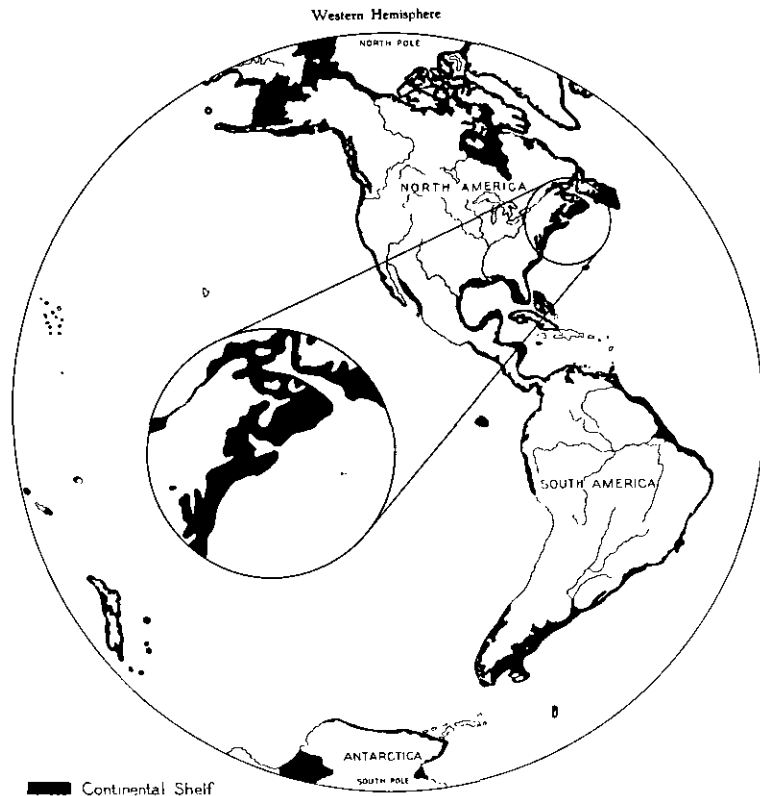


The 100-fathom-depth contour in the Gulf of Maine and adjacent area

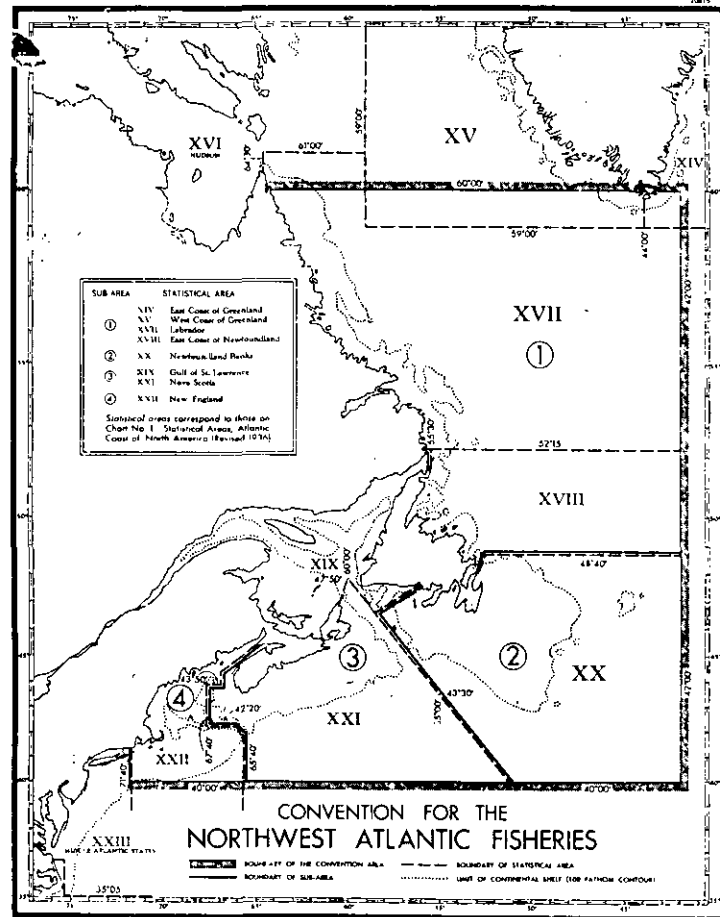


Source: A.L. Shalowitz, *Shore and Sea Boundaries*, Vol. I, 1962.

United States Memorial, Annex 3, Vol. I



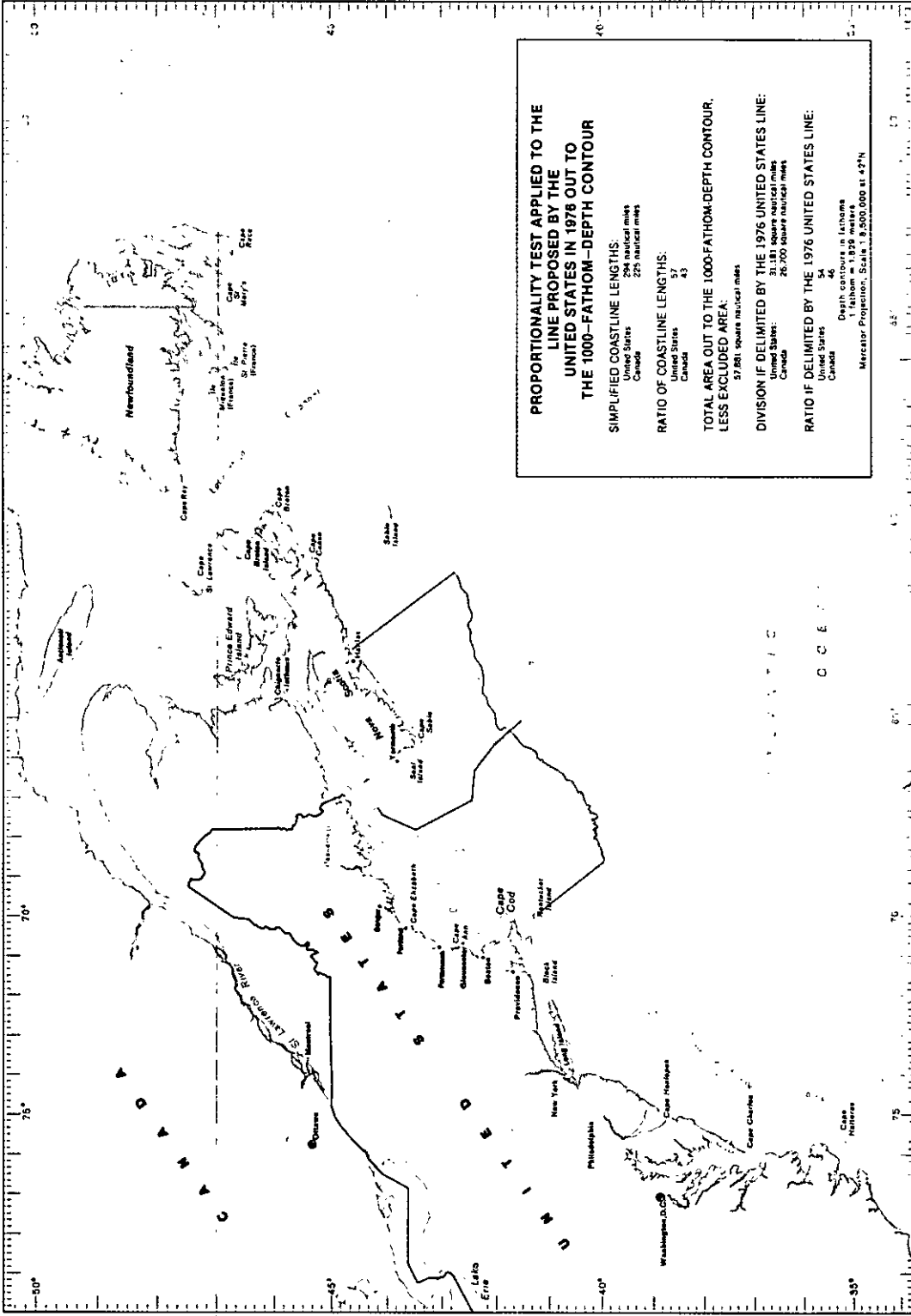
Source: M.W. Mouton, The Continental Shelf, 1952.



MAP ATTACHED TO THE UNITED STATES DRAFT CONVENTION (FEBRUARY 1948) DEPICTING PROPOSED SUBAREA BOUNDARIES AND THE 100-FATHOM-DEPTH CONTOUR AS THE LIMIT OF THE CONTINENTAL SHELF

United States Counter-Memorial, Fig. 19

Figure 2



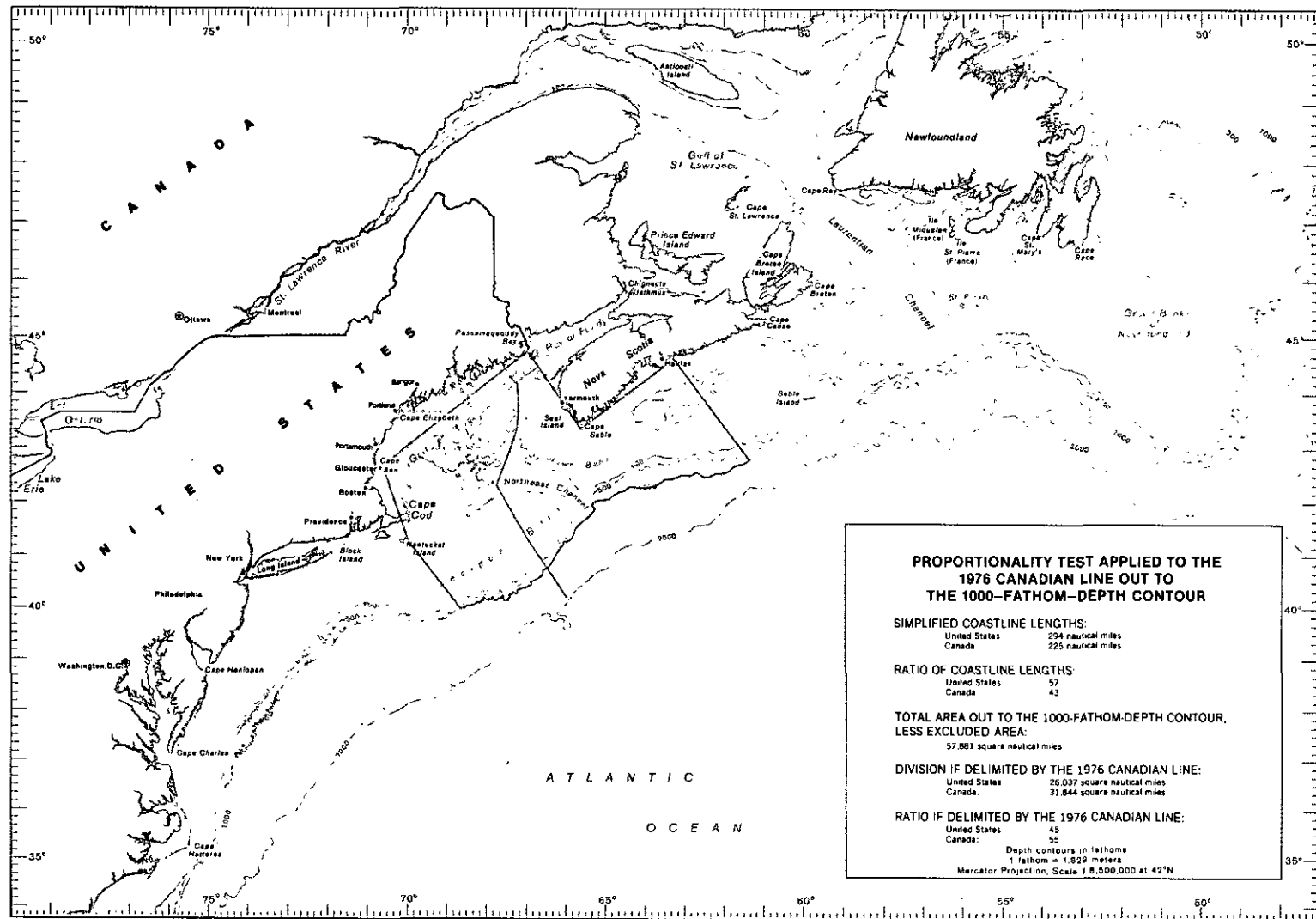
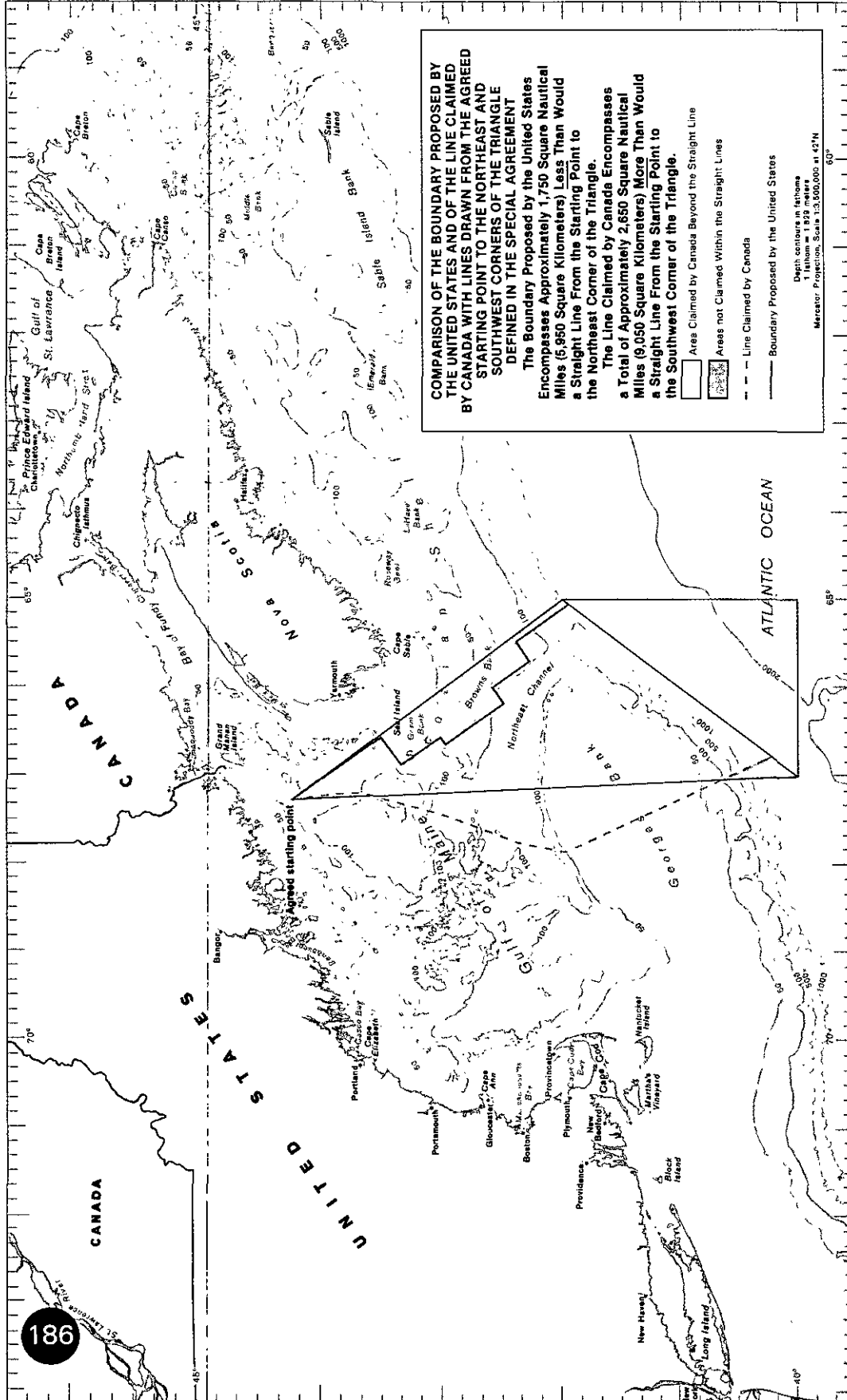
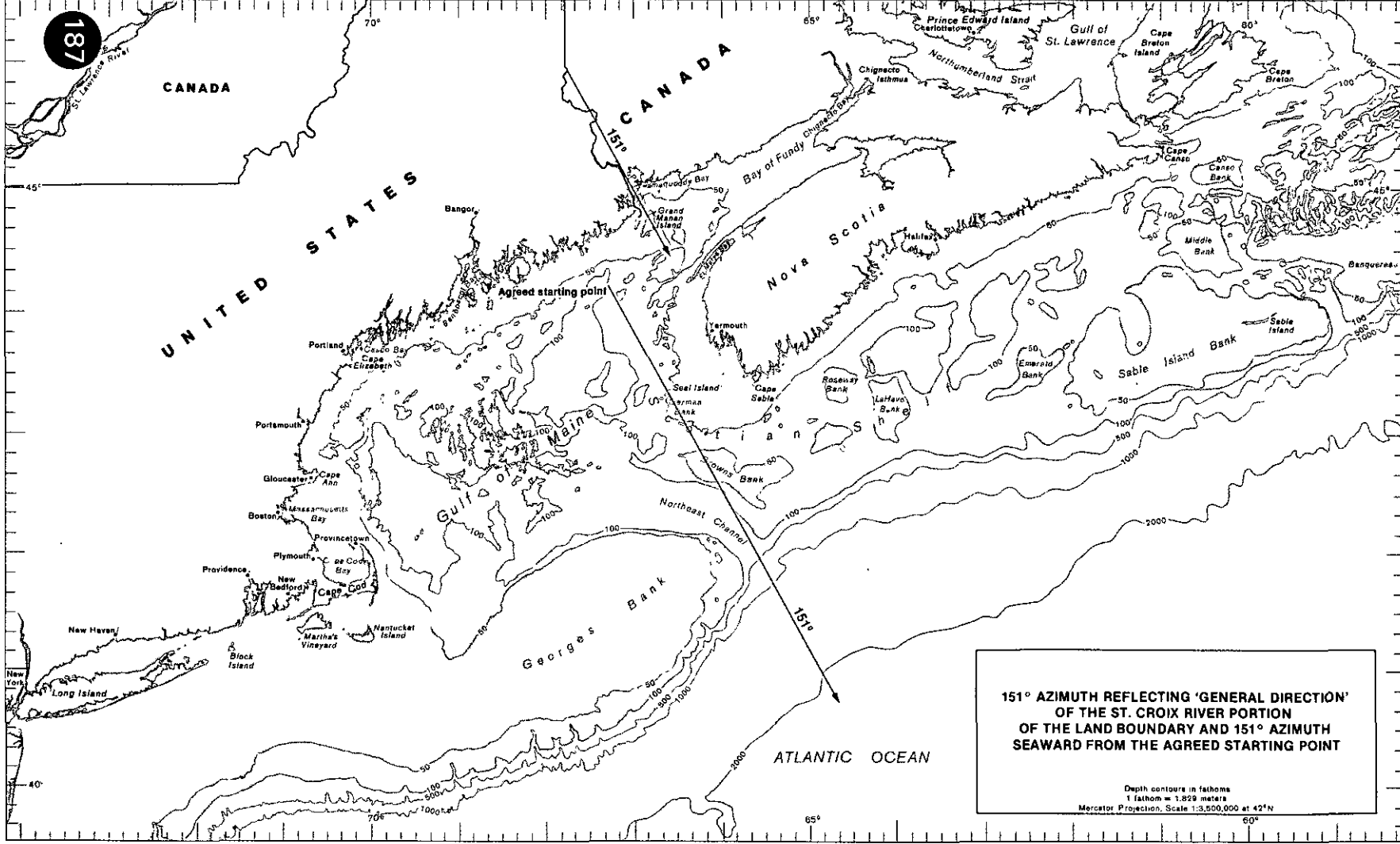


Figure 4







**151° AZIMUTH REFLECTING 'GENERAL DIRECTION'  
OF THE ST. CROIX RIVER PORTION  
OF THE LAND BOUNDARY AND 151° AZIMUTH  
SEAWARD FROM THE AGREED STARTING POINT**

Depth contours in fathoms  
1 fathom = 1.829 meters  
Mercator Projection, Scale 1:3,500,000 at 42°N  
60°

A

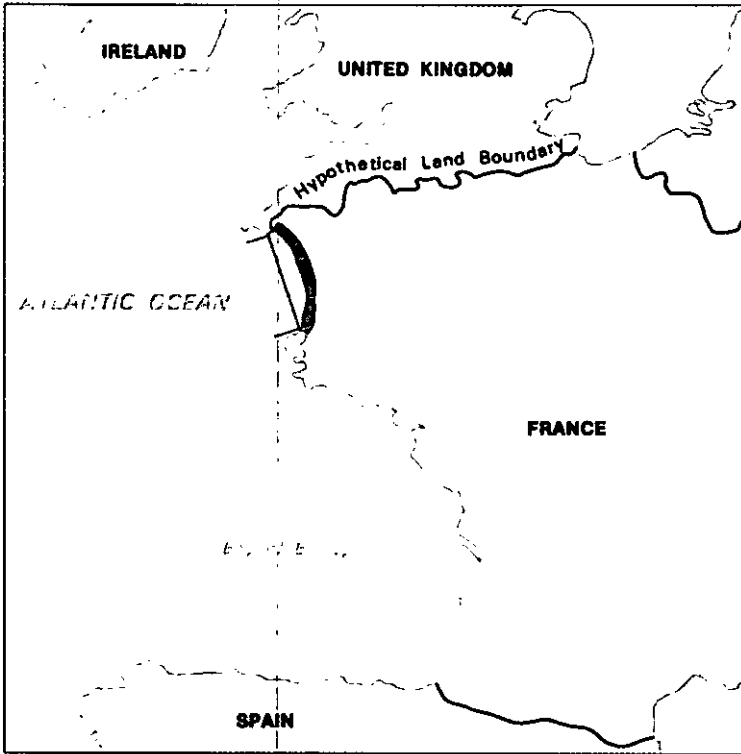


Figure 8

The English Channel would have to be filled in so as to create a primary coast that is comparable to the primary coast of the United States in the Gulf of Maine area

B

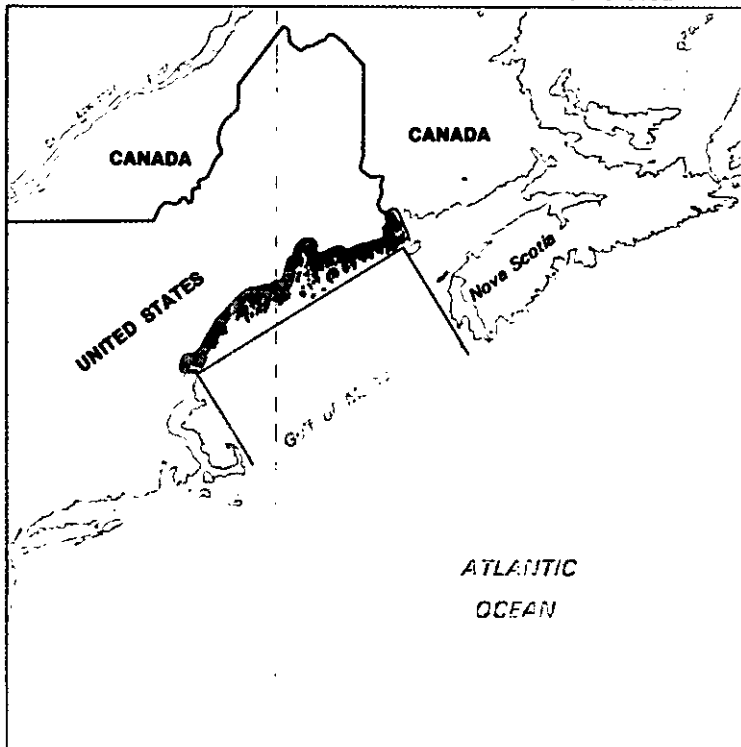
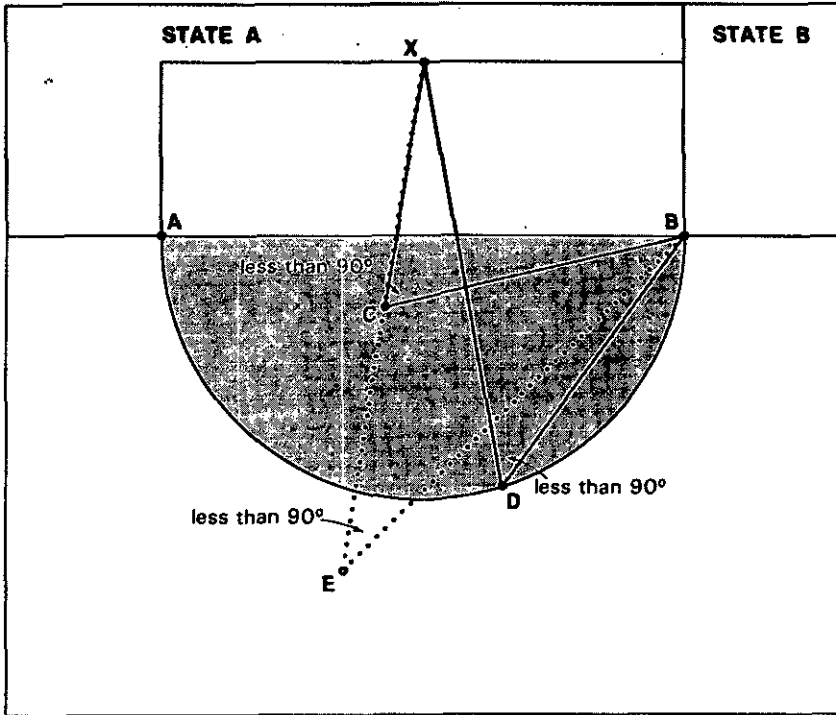


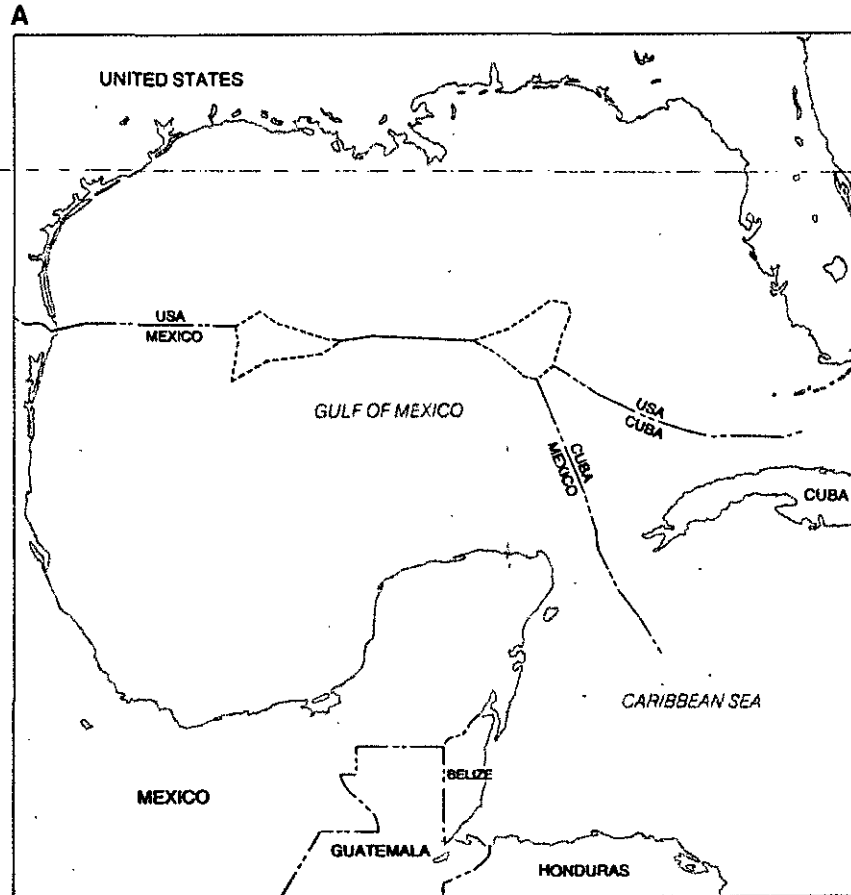
FIGURE 14 OF THE CANADIAN COUNTER - MEMORIAL REVISED TO PERMIT AN ANALOGY BETWEEN THE CONCAVITY IN THE GULF OF MAINE AND A HYPOTHETICAL CONCAVITY IN THE ENGLISH CHANNEL

- Primary coasts facing the inner and outer area
- Secondary coasts facing the inner area

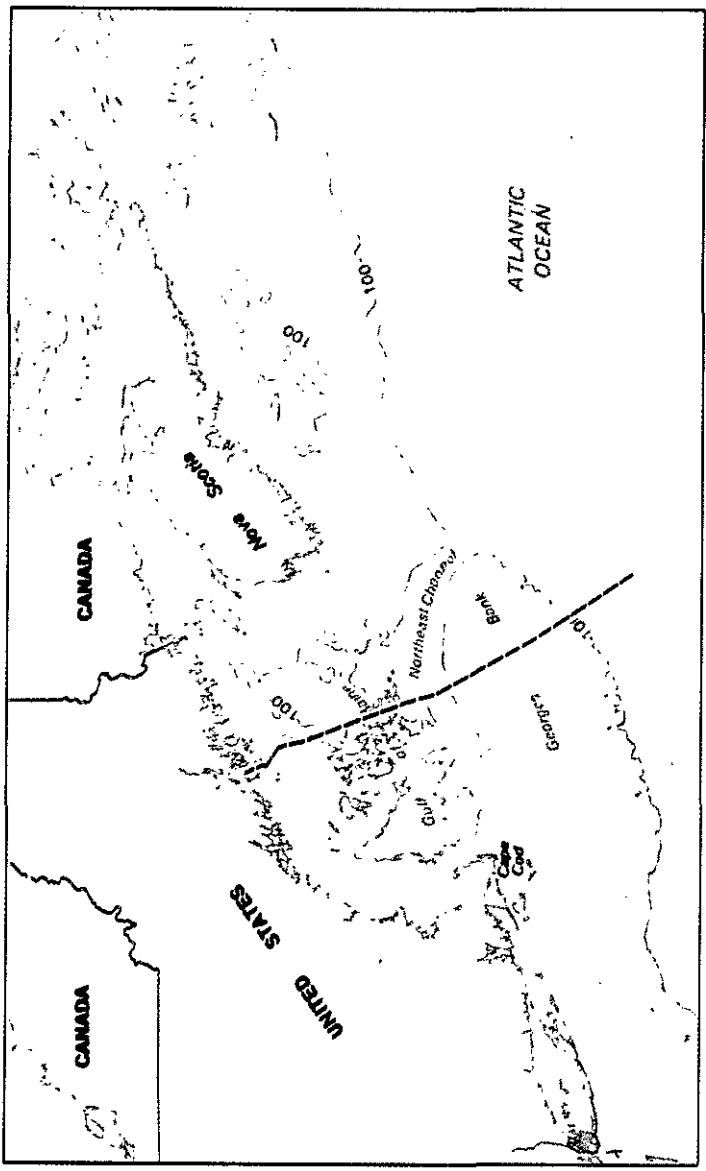


**FIGURE 10 OF THE CANADIAN COUNTER-MEMORIAL  
MODIFIED TO DEPICT A GEOMETRICAL FIGURE  
REPRESENTING A COASTAL CONCAVITY COMPARABLE  
TO THE GEOGRAPHY OF THE GULF OF MAINE AREA**

Points C, D, and E in Canada's Figure 10 create angles of less than  $90^\circ$  between point B and point X, representing the midpoint on the coastline at the back of the concavity. Pursuant to the theory presented in the Canadian Counter-Memorial, points C, D, and E are adjacent to points B and X.

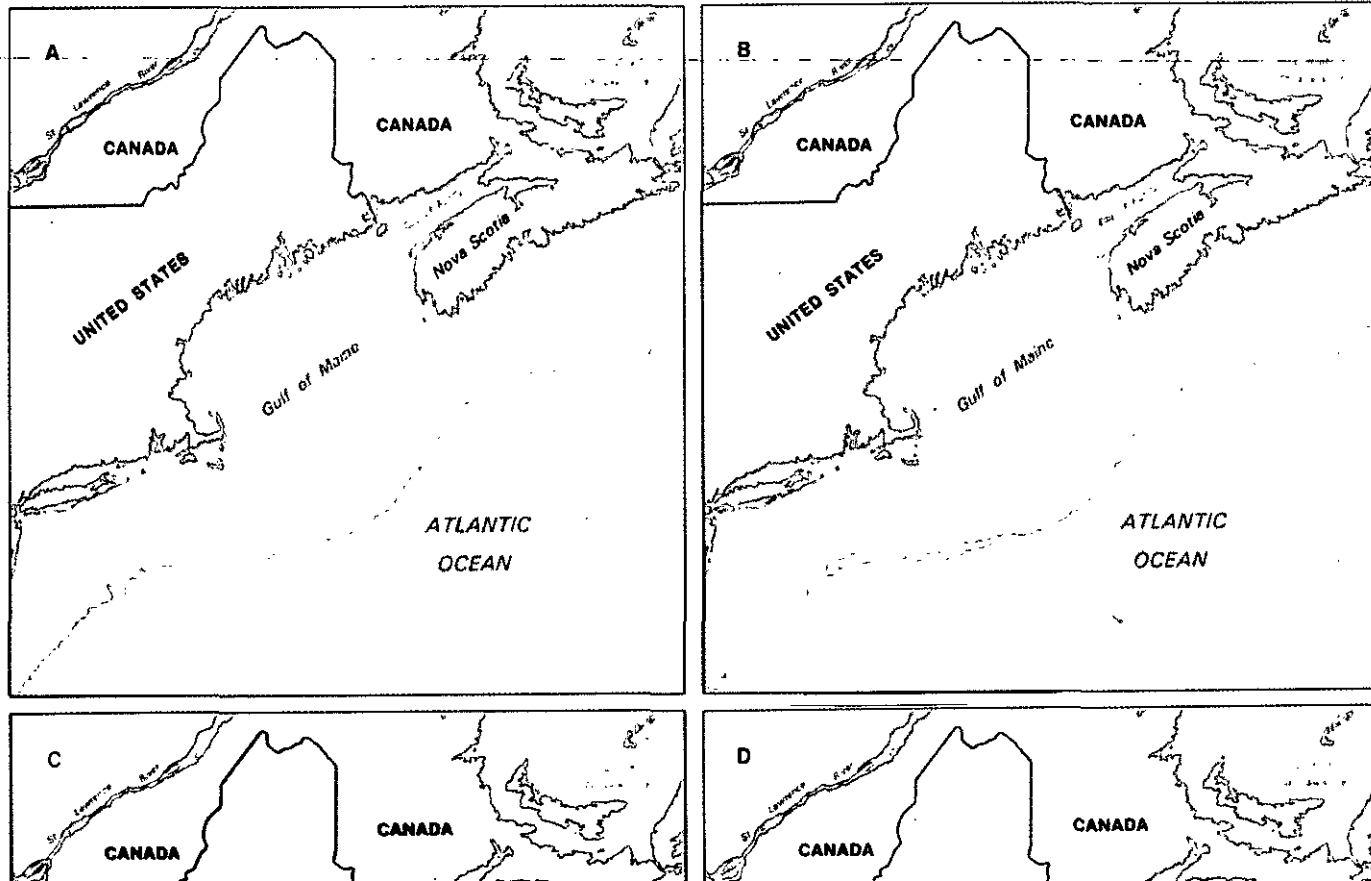


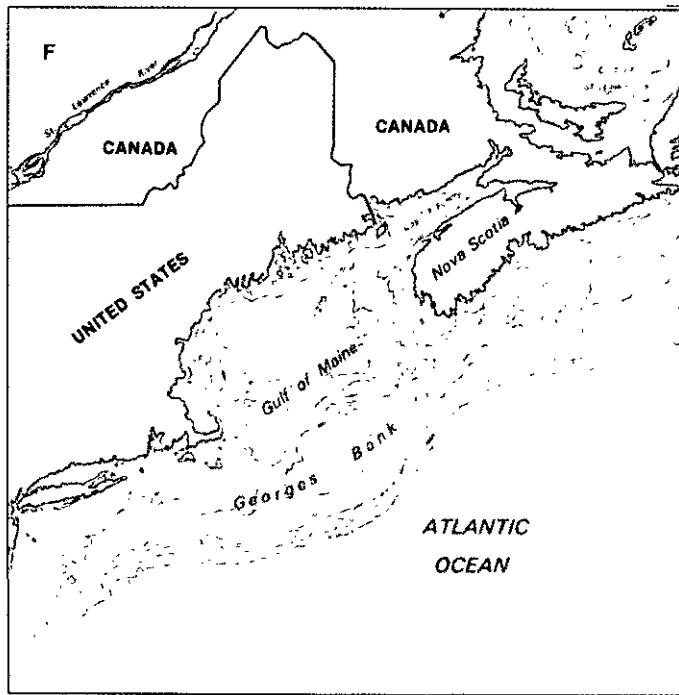
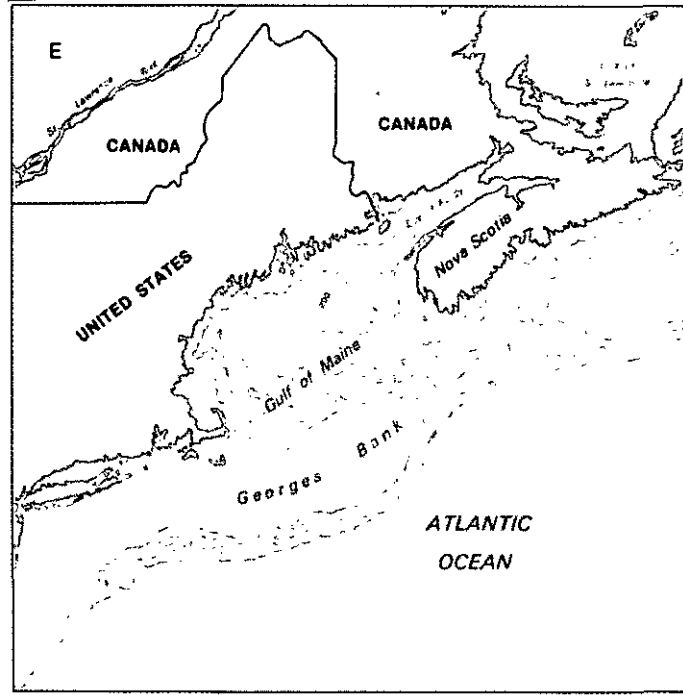
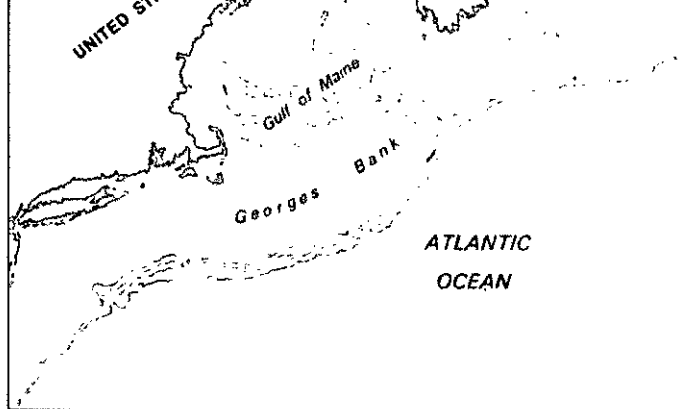
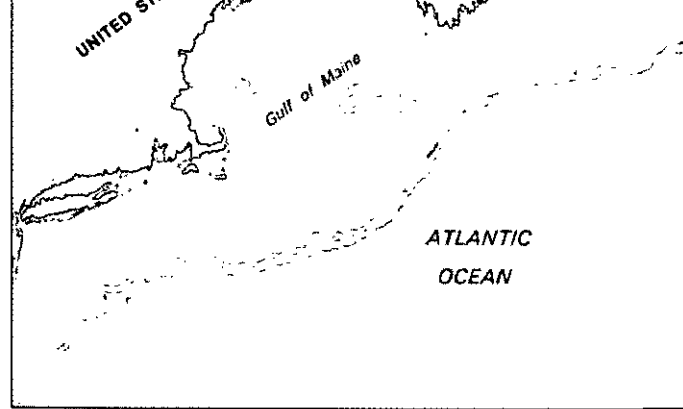
**UNITED STATES-MEXICO MARITIME BOUNDARY EXTENDING FROM THE LAND BOUNDARY IN MIDDLE OF CONCAVITY AS REPRODUCED FROM FIGURE 35A OF THE CANADIAN COUNTER-MEMORIAL**

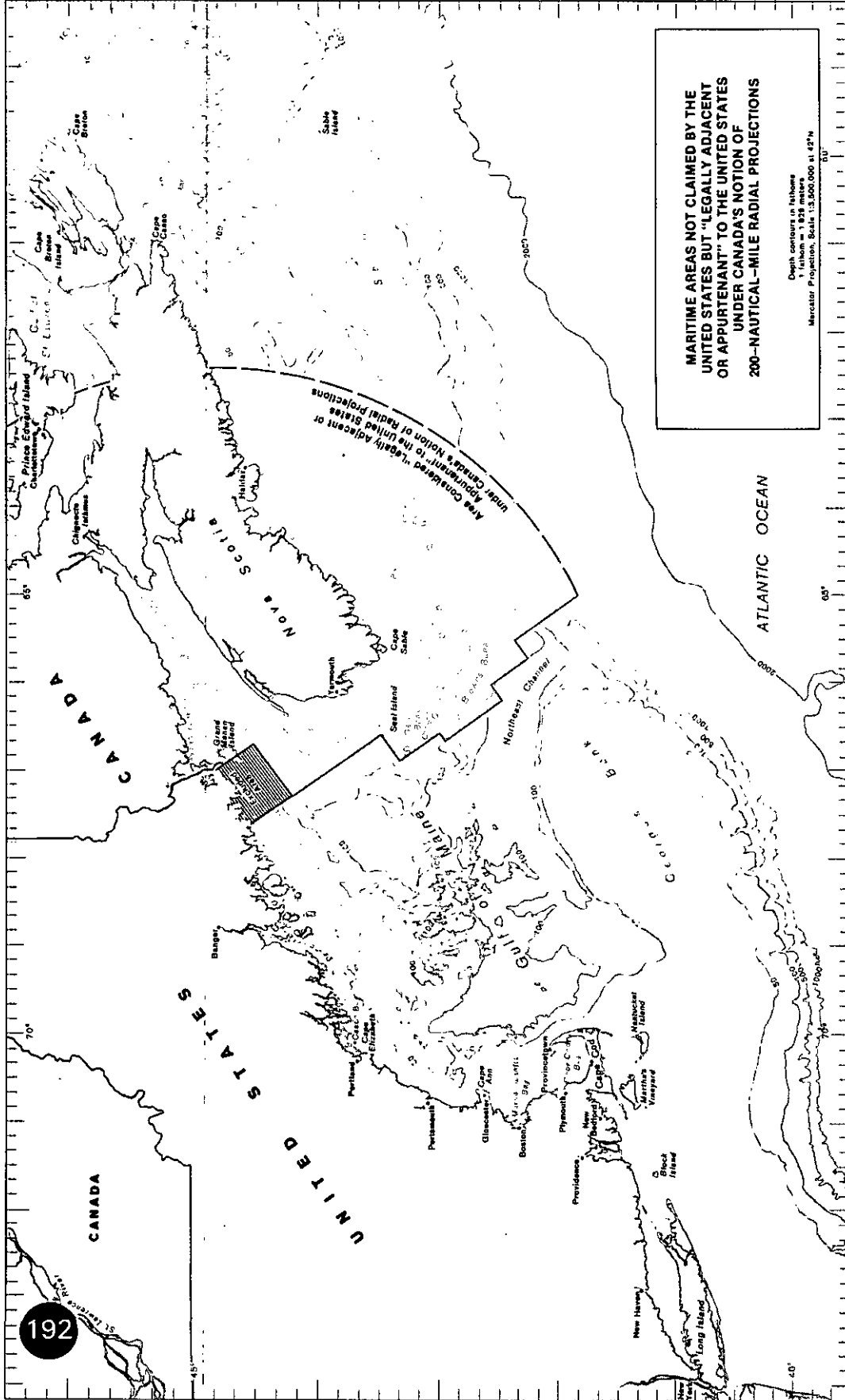


EQUIDISTANT LINE FROM HYPOTHETICAL UNITED STATES-CANADA LAND BOUNDARY IN MIDDLE OF CONCAVITY TAKEN FROM FIGURE 22 OF THE UNITED STATES COUNTER-MEMORIAL

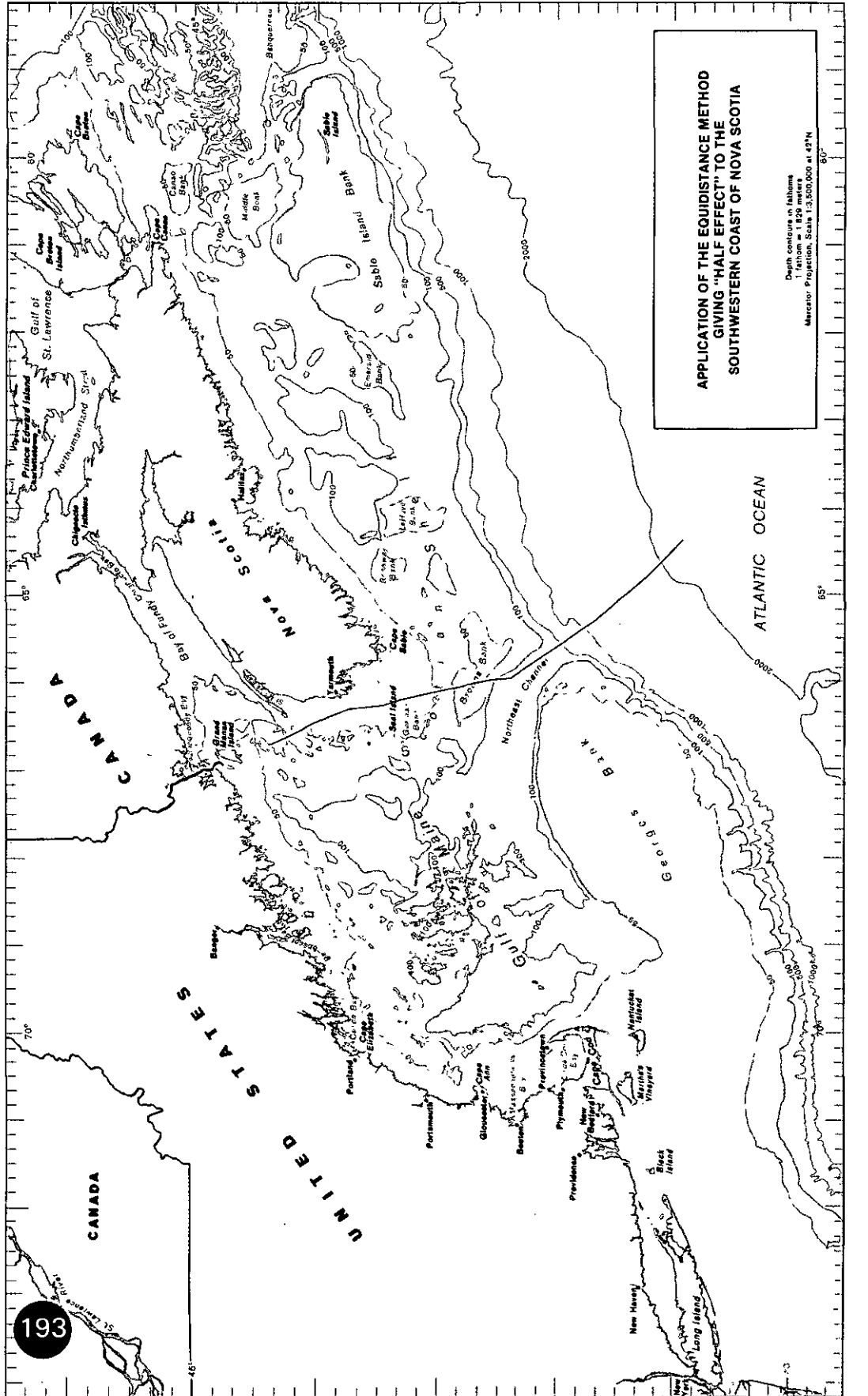
Figure 11





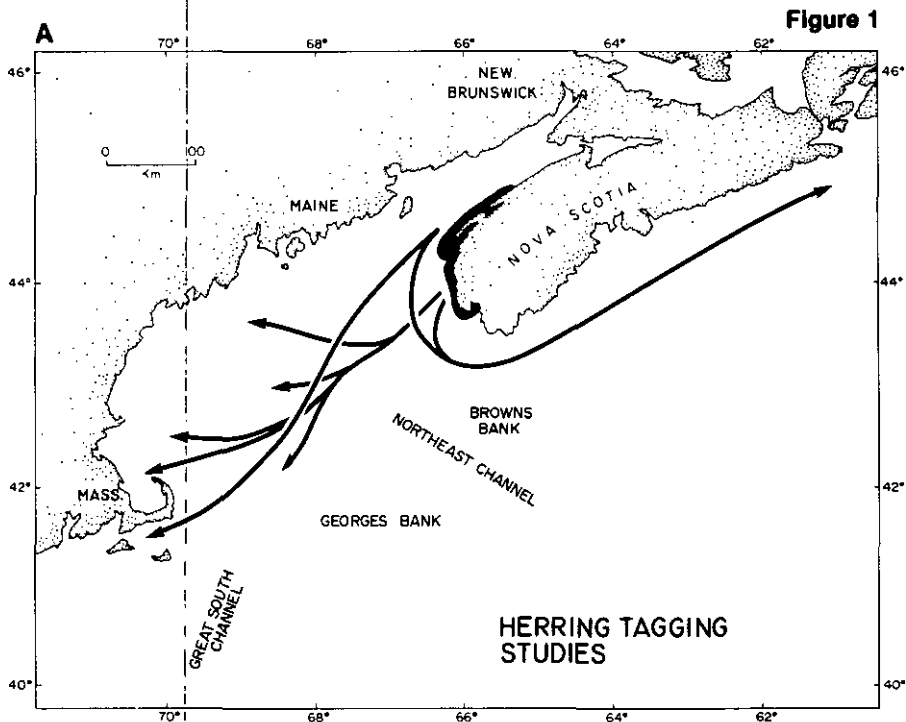






APPLICATION OF THE EQUIDISTANCE METHOD  
 GIVING "HALF EFFECT" TO THE  
 SOUTHWESTERN COAST OF NOVA SCOTIA

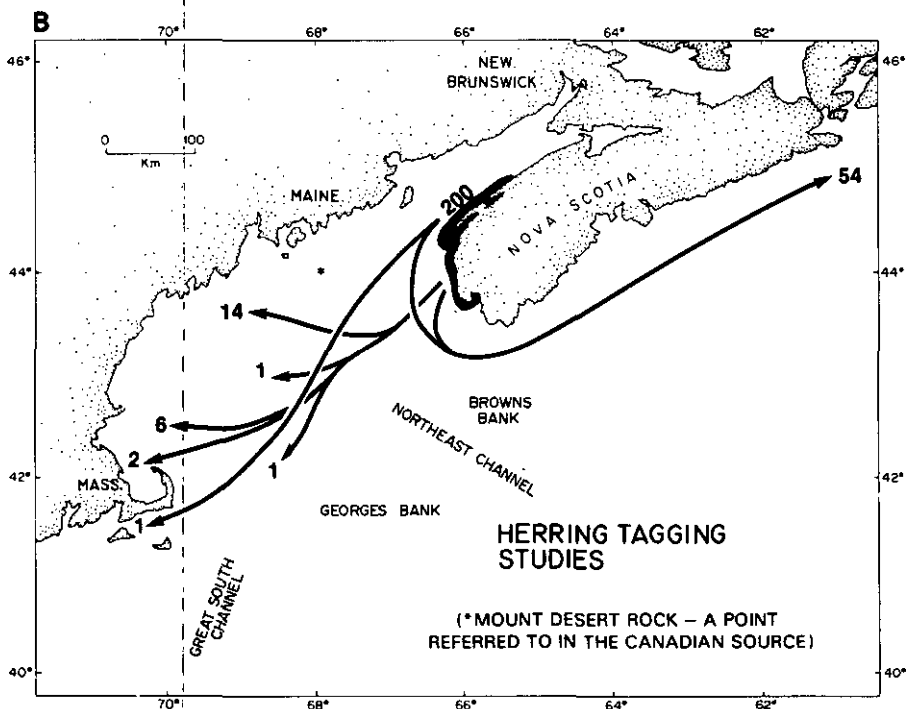
Depth contours in fathoms  
 1 fathom = 1.829 meters  
 Mercator Projection, Scale 1:3,500,000 at 47°N



*Herring tagging studies, showing extensive movement from the Bay of Fundy throughout the Gulf of Maine area and beyond.*

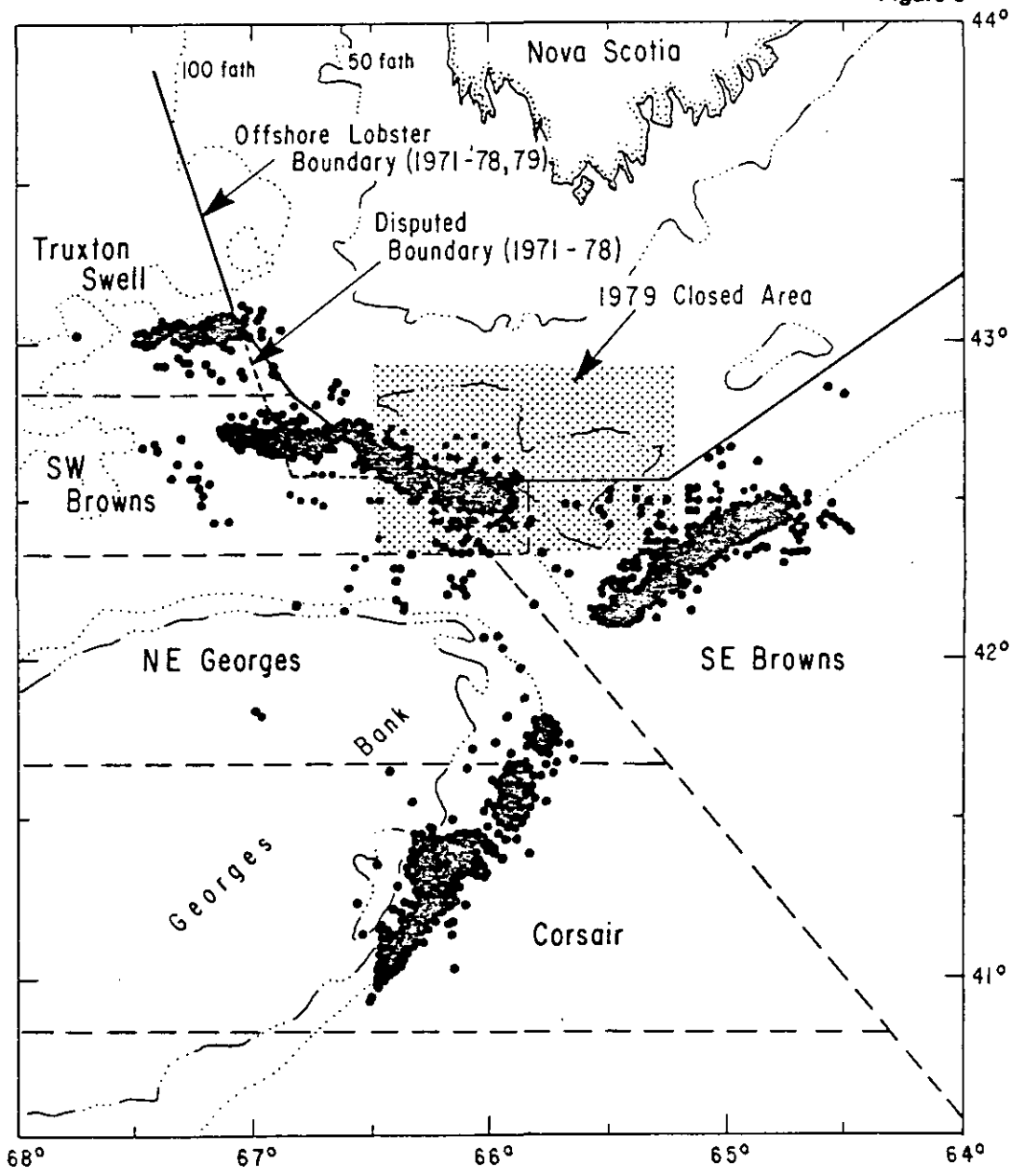
*Source: Redrawn from W. T. Stobo*

**CANADIAN COUNTER-MEMORIAL, ANNEXES, VOL. I, FIG. 53**



**CANADIAN FIGURE 53 WITH NUMBERS ADDED TO REFLECT THE NUMBER OF HERRING RECAPTURES REPRESENTED BY EACH ARROW AND BY THE BAND ALONG THE COAST OF NOVA SCOTIA**

Figure 3

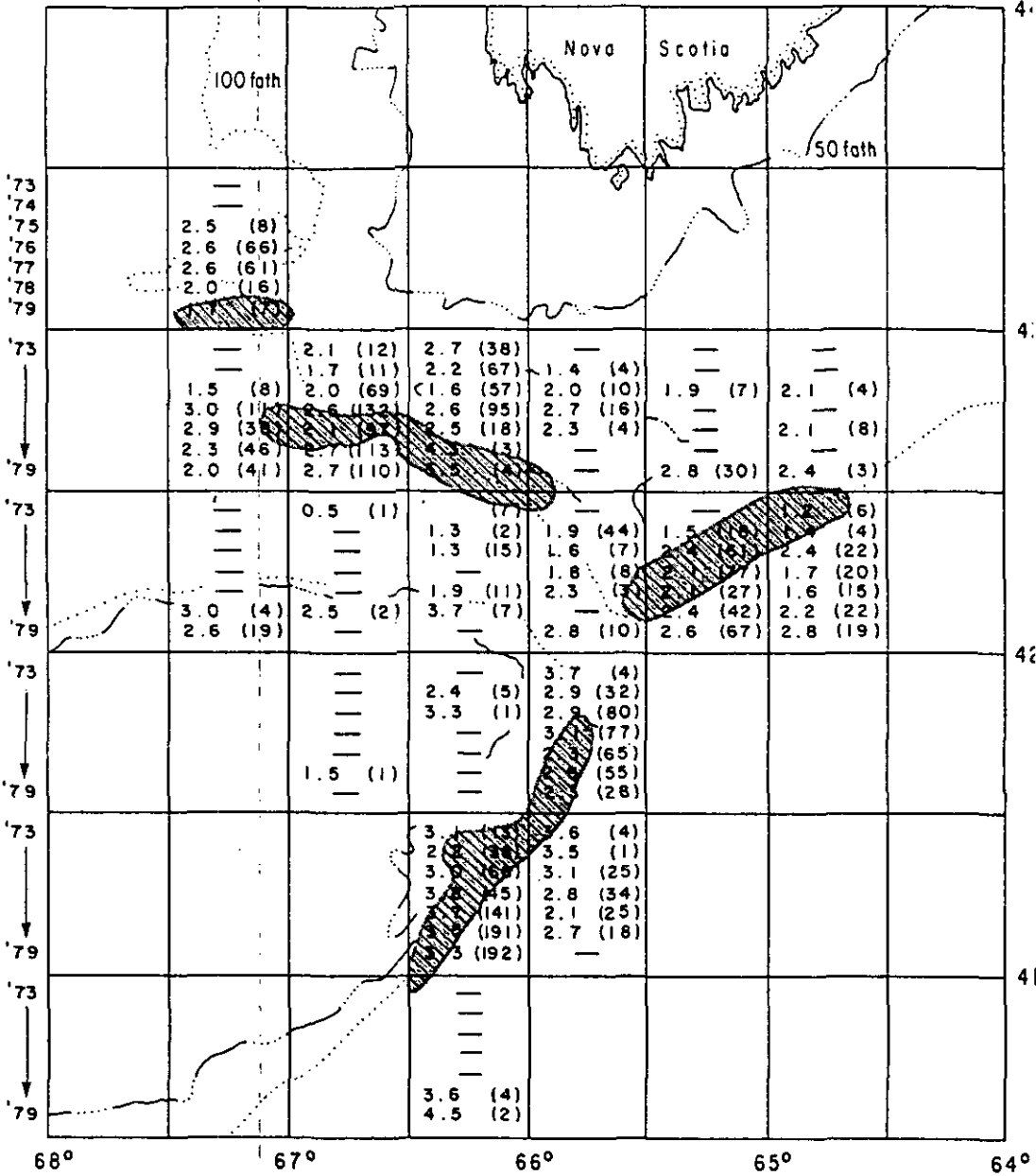


"Canadian offshore lobster fishing areas. Dots indicate fishing location based on fishermen's log books 1973-79."

**CANADIAN OFFSHORE LOBSTER FISHING AREAS AS ACTUALLY DRAWN BY CANADIAN SCIENTISTS STASKO AND PYE**

Source: Stasko and Pye, p. 10, Fig. 2.

**Figure 4**

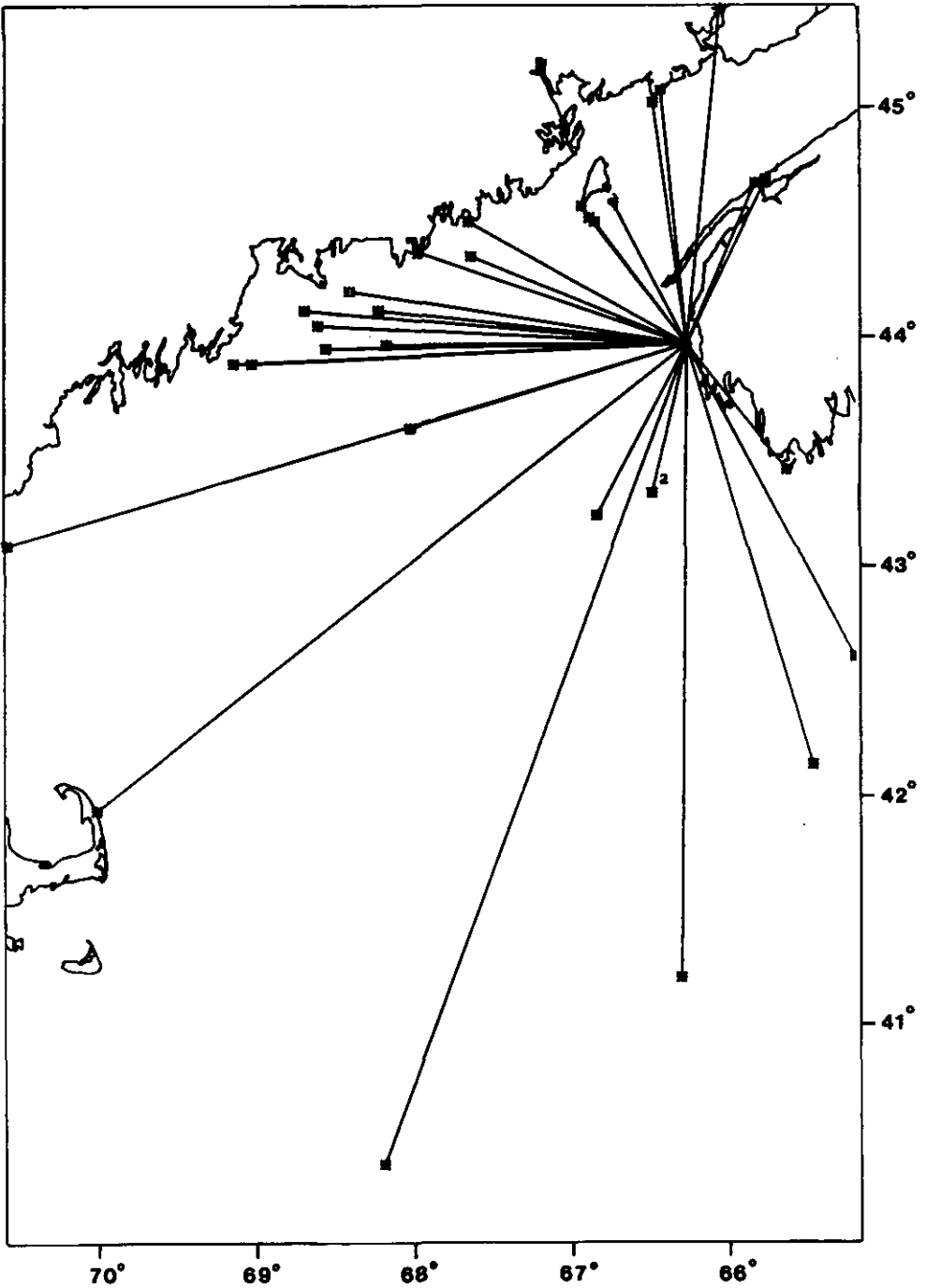


"Commercial catch/effort in kg per trap haul per year 1973 to 1979, followed in brackets by catch in MT, for 30' x 30' areas. Catches, for which location is not known, are excluded. Also excluded are data with less than 1 MT per year per 30' x 30' area. Sequence of numbers within each rectangle is 1973 at top to 1979 at bottom. Concentrations of commercial fishing effort are shown as shaded areas." [Emphasis added.]

**CONCENTRATIONS OF COMMERCIAL FISHING EFFORT AS ACTUALLY DRAWN BY CANADIAN SCIENTISTS STASKO AND PYE**

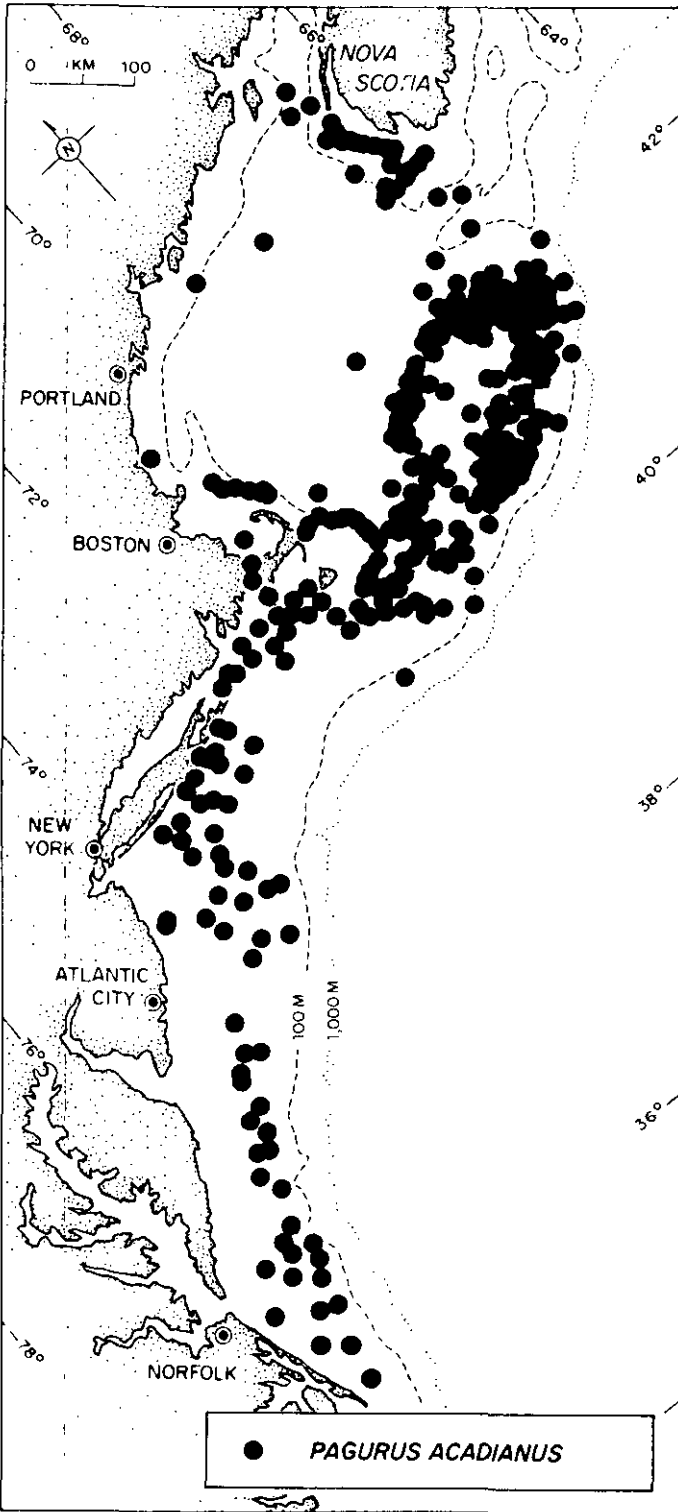
Source: Stasko and Pye, p. 11, Fig. 3. [The shaded areas have been darkened in this reproduction for ease of identification.]

Figure 6



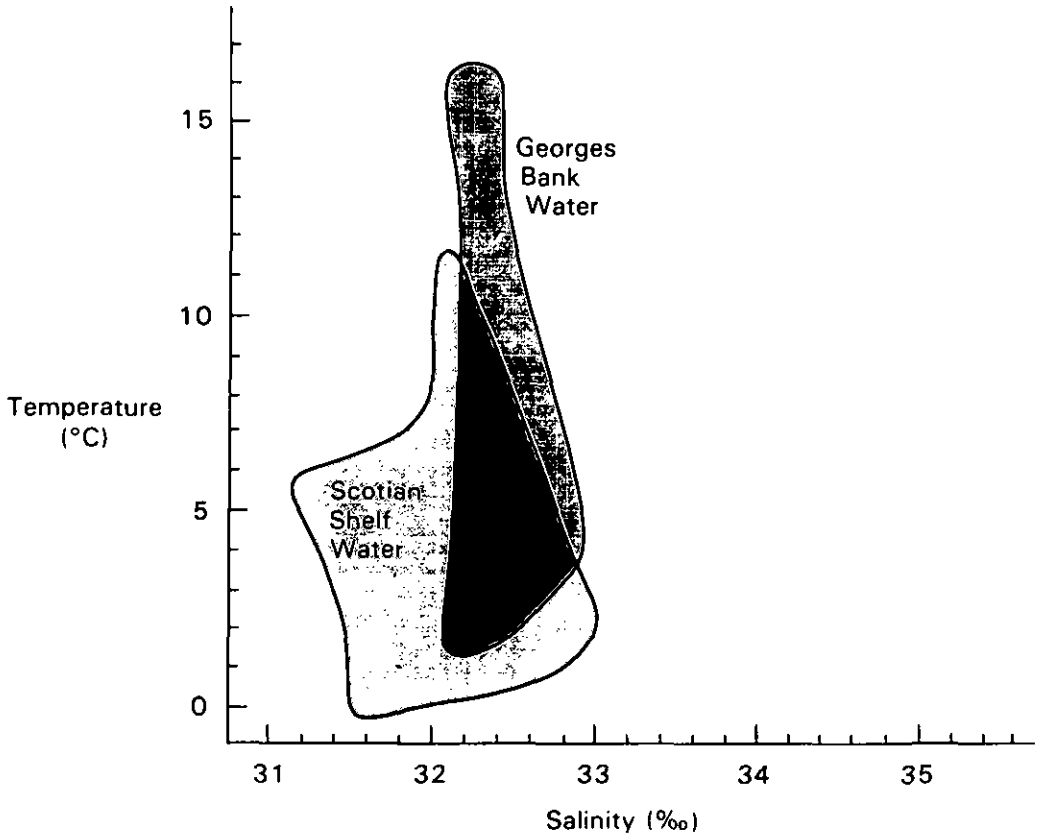
"Map of release and recapture points with straight-line distances traveled for all tagged lobsters recaptured  $\geq 74.1$  km from the Port Maitland fishing area (1944-81). One lobster caught at location of each asterisk unless otherwise shown." [Emphasis added.]

**RECAPTURE POINTS FOR 30 TAGGED LOBSTER OUT OF MORE THAN 14,000 LOBSTER RECAPTURED**



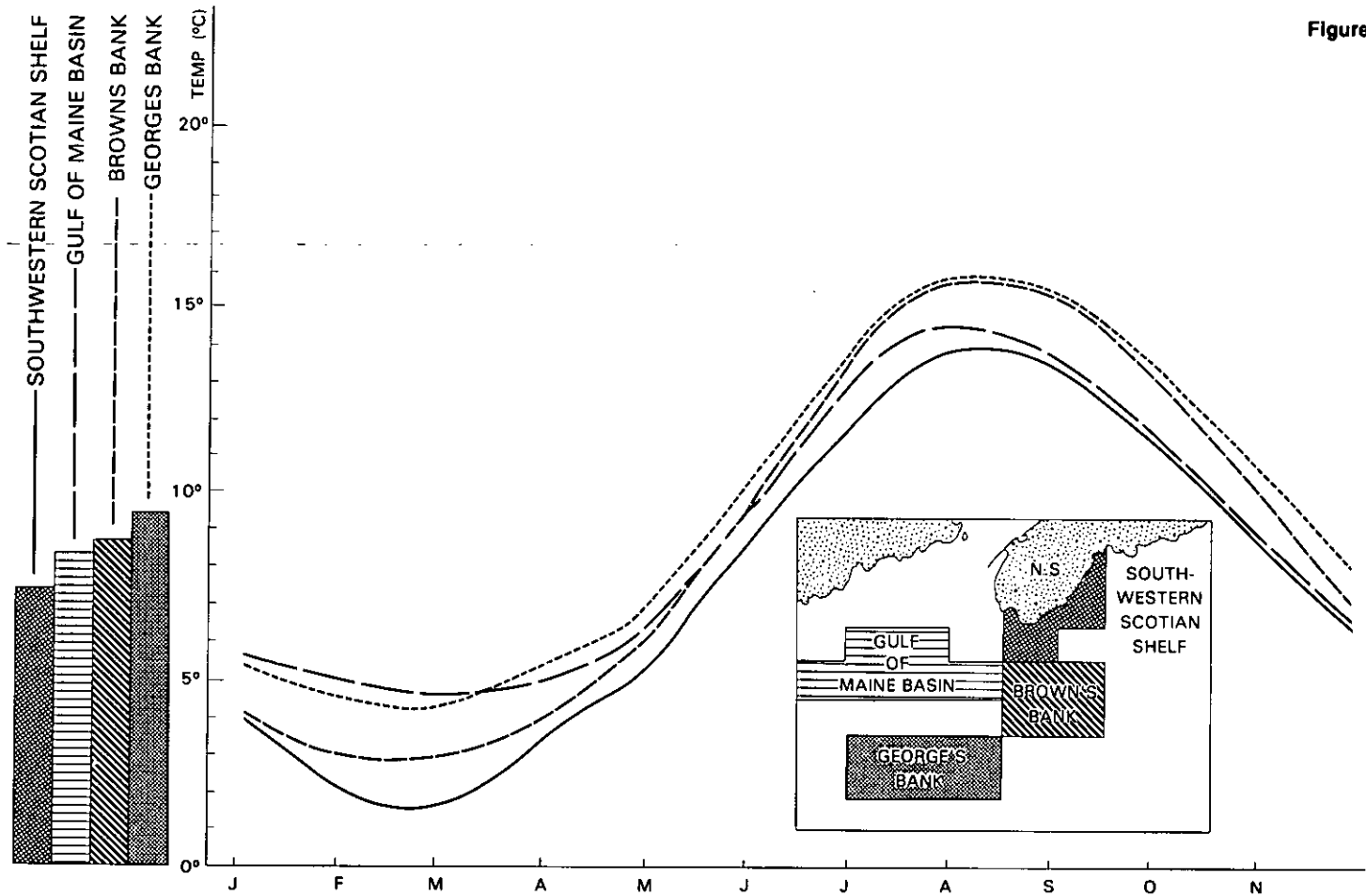
**GEOGRAPHIC DISTRIBUTION OF HERMIT CRAB  
*PAGURUS ACADIANUS***

**Figure 1**



**TEMPERATURE-SALINITY RELATIONSHIP FOR THE  
GEORGES BANK AND SCOTIAN SHELF WATER MASSES**

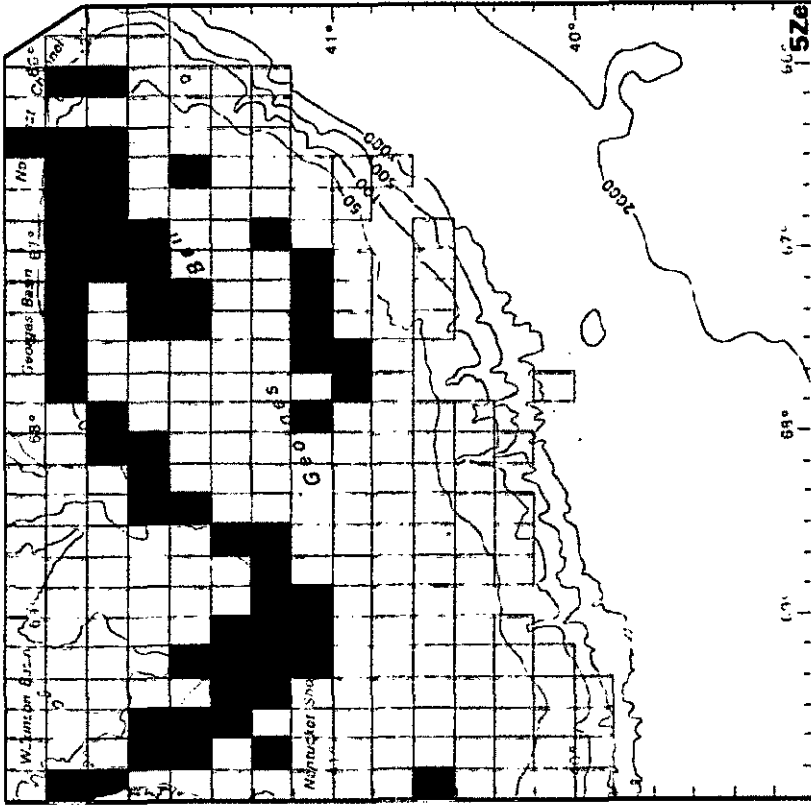
Source: Derived from Canadian Counter-Memorial, Annexes, Vol. I, Fig. 13.



**MODIFICATION OF CANADIAN FIGURE 14 SHOWING SEA-SURFACE TEMPERATURE PATTERNS FOR SELECTED WATERS OF THE SOUTHWESTERN SCOTIAN SHELF, THE GULF OF MAINE BASIN, AND GEORGES BANK**

Source: Derived from Canadian Counter-Memorial, Annexes, Vol. I, Fig. 14.



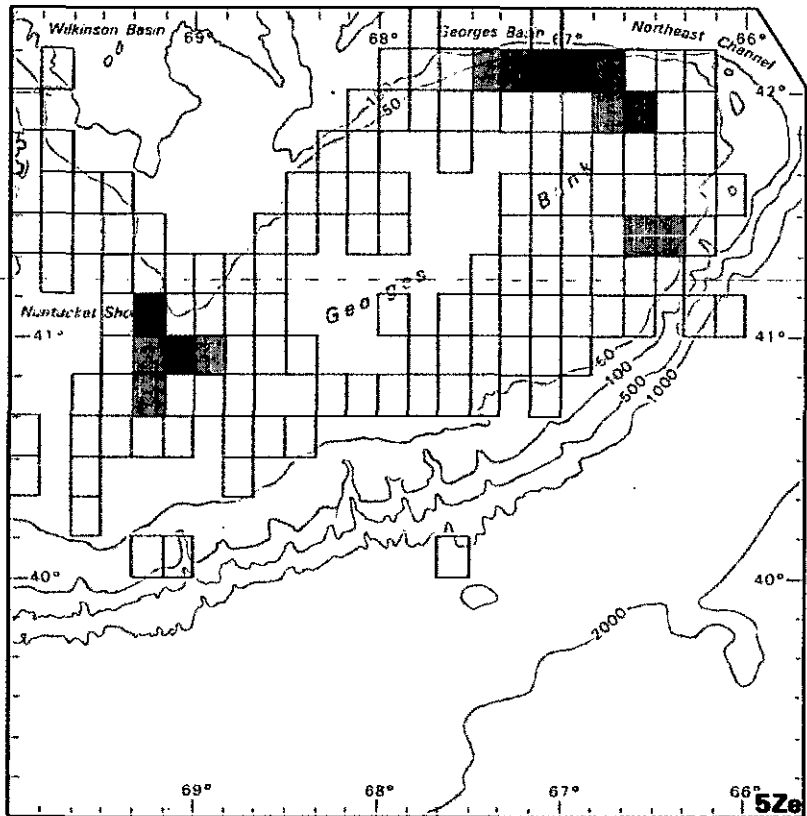


**LANDINGS PER 10° SQUARE PER YEAR**

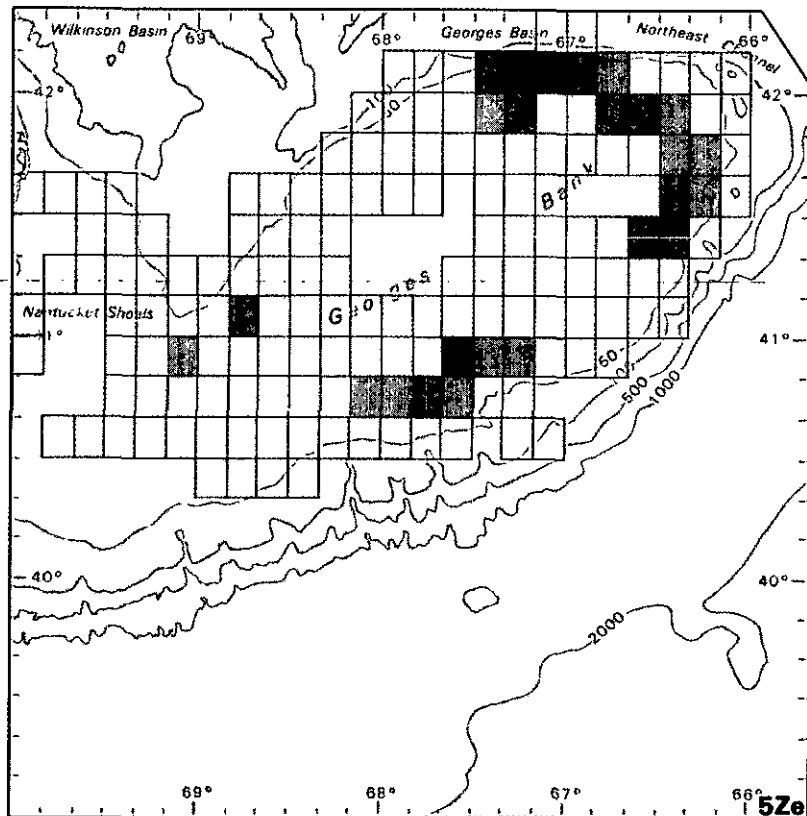
	0 to 390,000 LBS	(0 to 177,273 KG)
	390,000 to 700,000 LBS	(177,273 to 318,182 KG)
	700,000 to 1,040,000 LBS	(318,182 to 472,727 KG)
	1,040,000 to 1,460,000 LBS	(472,727 to 663,636 KG)
	above 1,460,000 LBS	(above 663,636 KG)

This scale is designed so that the sum of the landings in all the squares of any one of the five shades of red is equal to approximately 20 percent of the total landings shown on the map.

**UNITED STATES LANDINGS OF MAJOR GROUND FISH  
(COD, HADDOCK, YELLOWTAIL FLOUNDER) — 1981**



**UNITED STATES SEA SCALLOP LANDINGS — 1981**



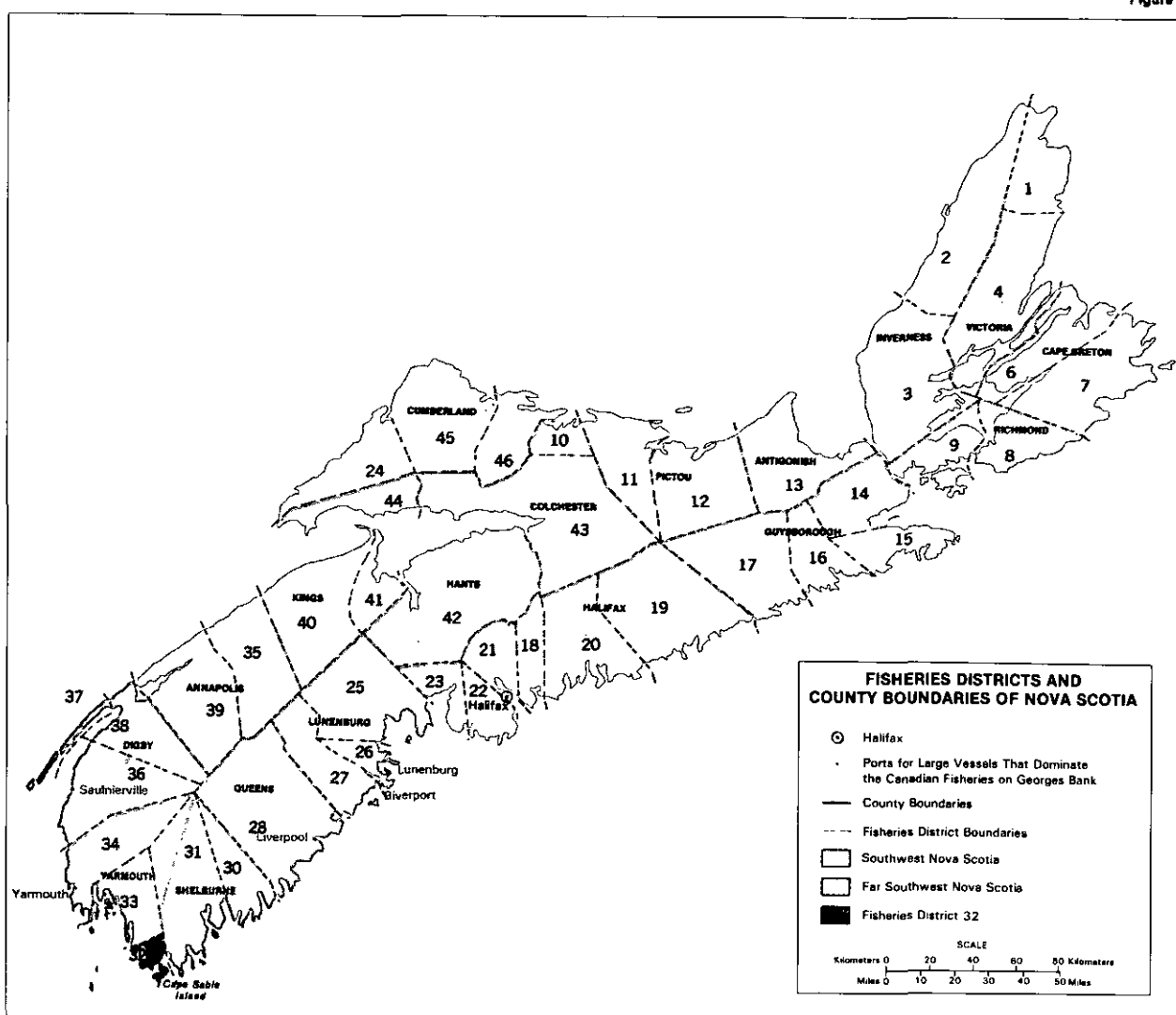
**UNITED STATES SEA SCALLOP LANDINGS — YEARLY AVERAGE FOR 1957-1962**

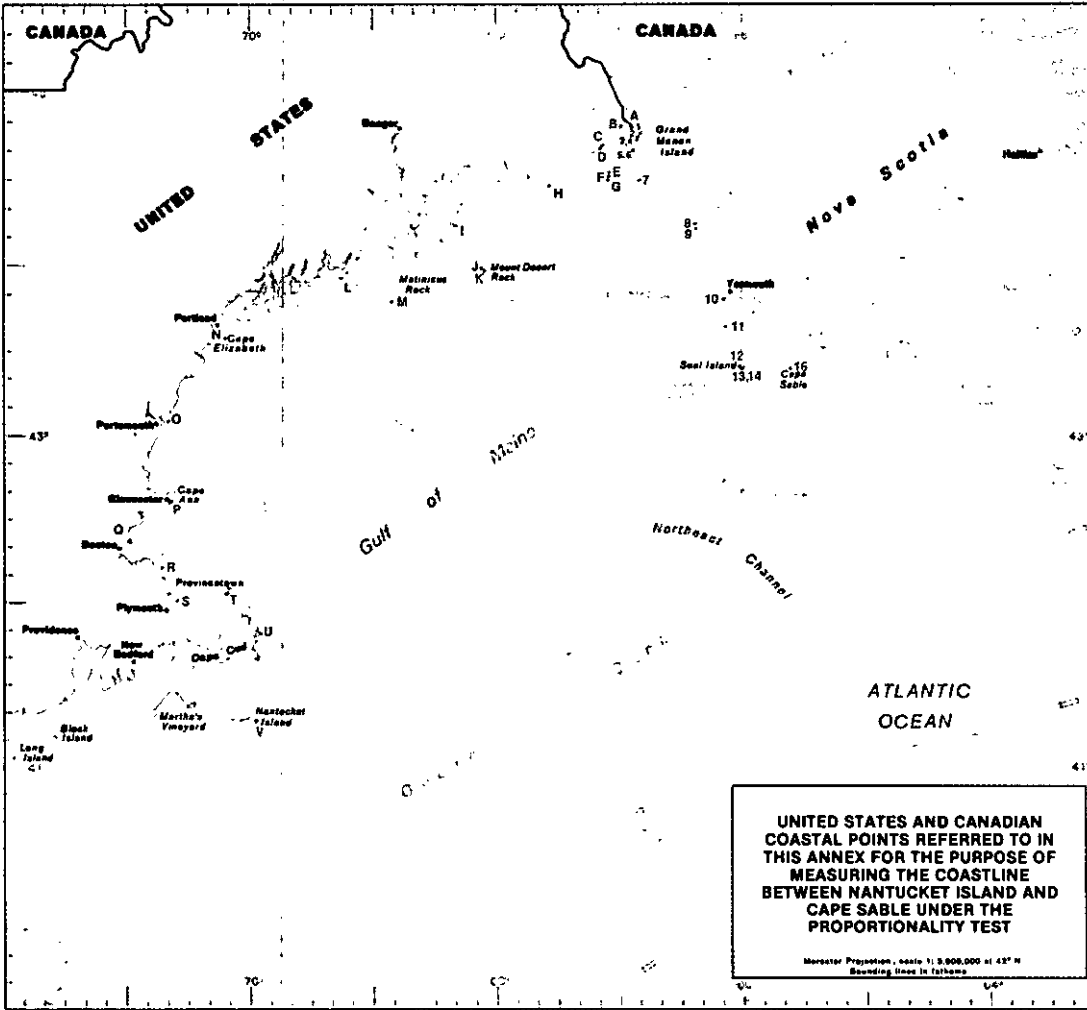
LANDINGS (MEAT WEIGHT) PER 10' SQUARE PER YEAR		
	0 to 150,000 LBS (0 to 68,182 KG)	
	150,000 to 250,000 LBS (68,182 to 113,636 KG)	
	250,000 to 450,000 LBS (113,636 to 204,545 KG)	

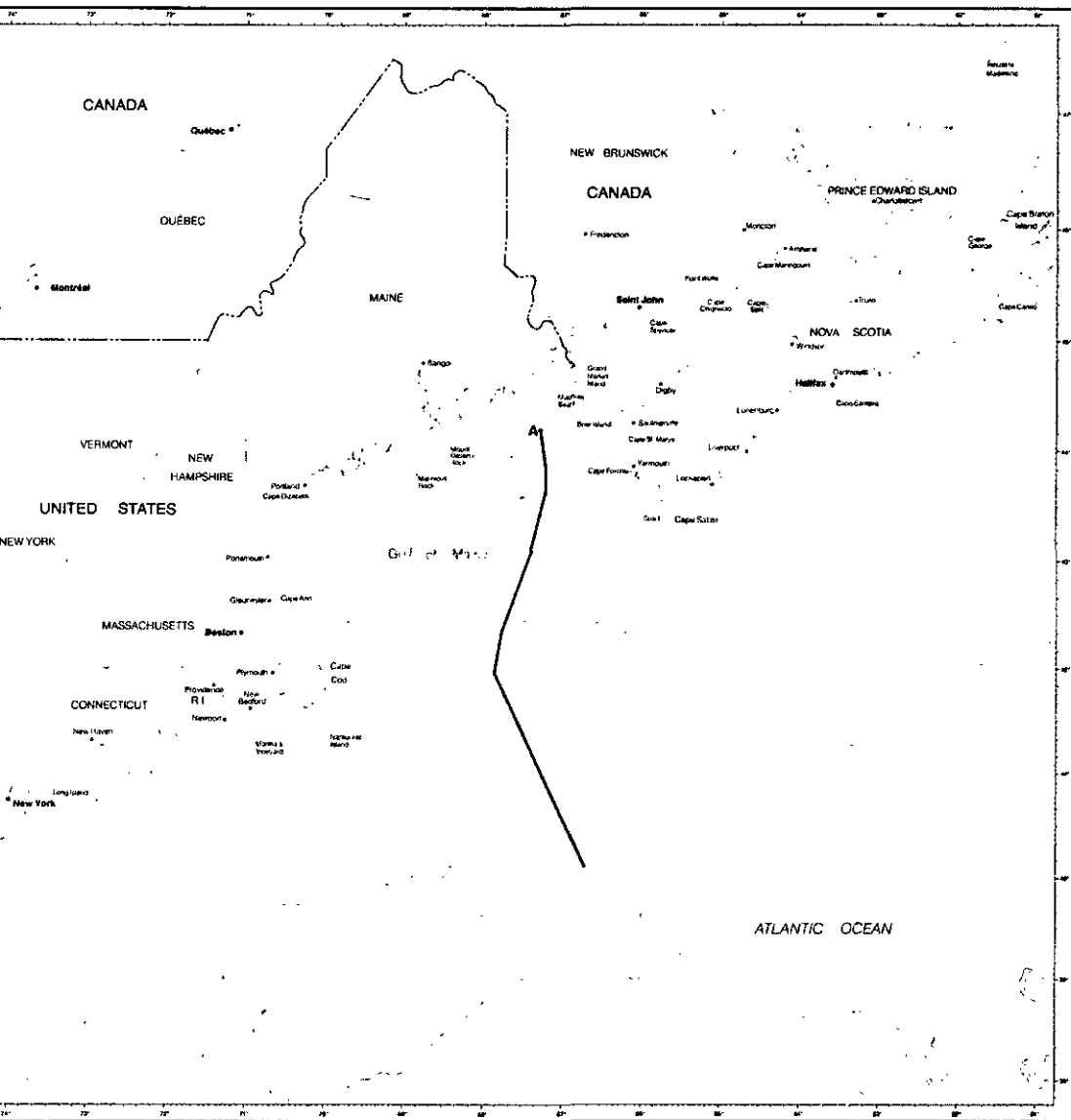
450,000 to 1,000,000 LBS (204,545 to 454,545 KG)  
 above 1,000,000 LBS (above 454,545 KG)

This scale is designed so that the sum of the landings in all the squares of any one of the five shades of red is equal to approximately 20 percent of the total landings shown on each

**Figure 2**



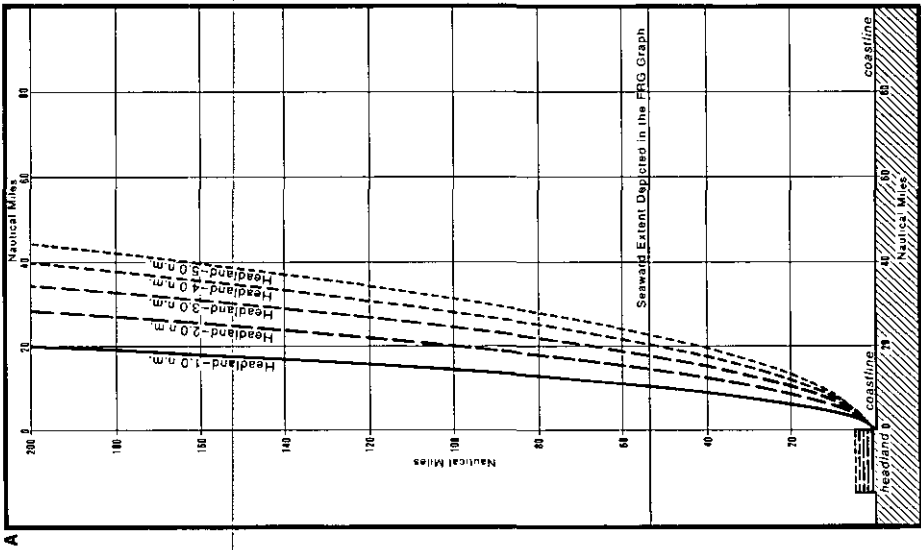




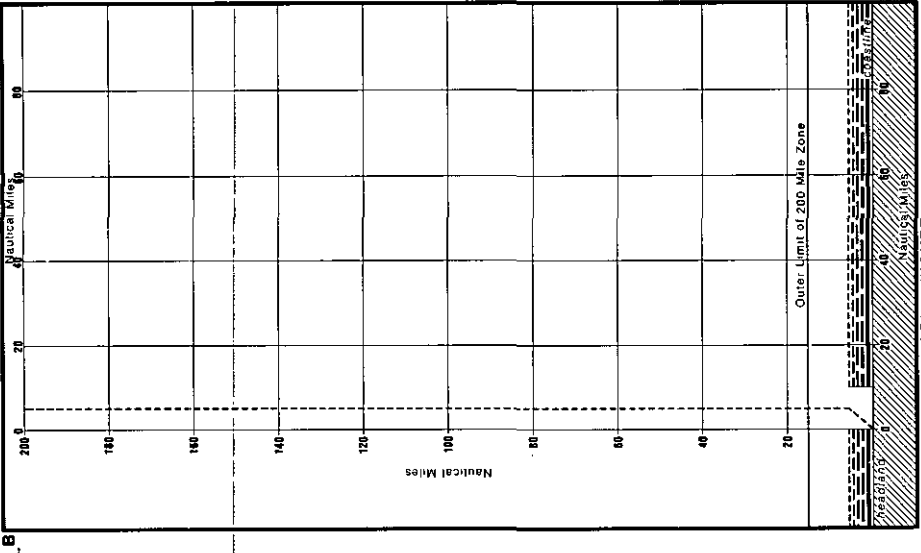
**Figure 9**  
**The Canadian Line**

Depth in Metres  
 Projection - Mercator  
 Scale - 1:4 700 000 at 41°N

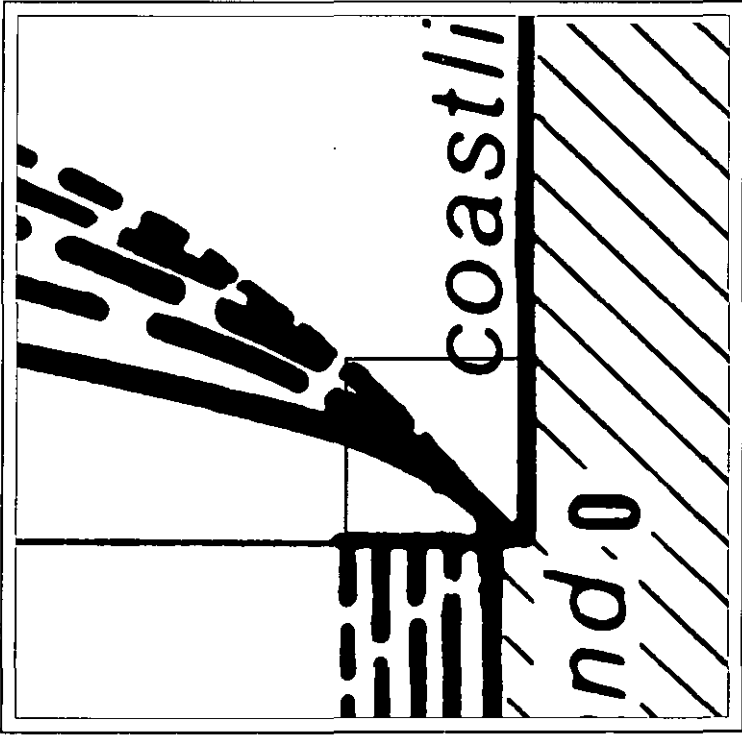
**Figure 32**  
**Comparison of the**  
**Relative Effects of a**  
**Headland and a**  
**Three-Sided**  
**Concavity on an**  
**Equidistance Line**



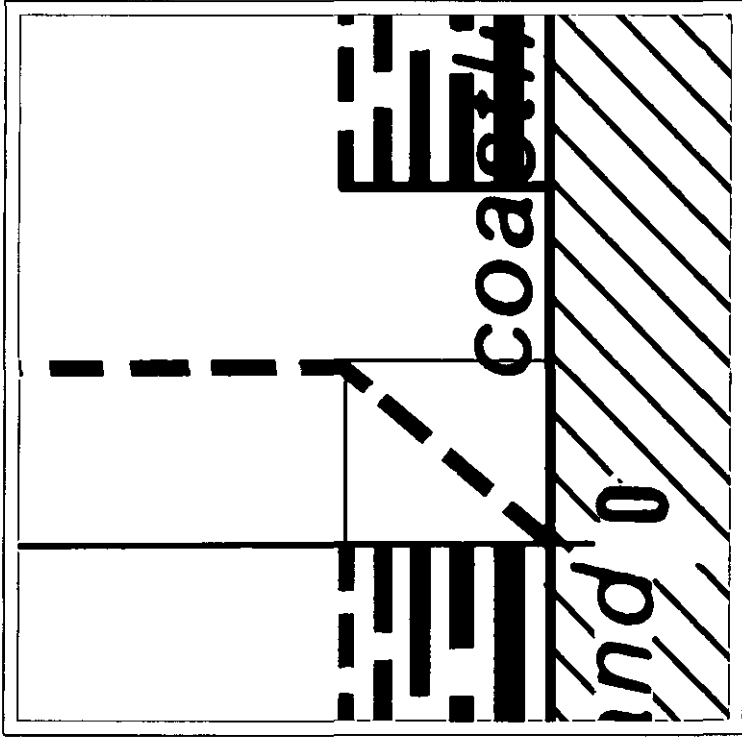
**GRAPH BASED UPON THE METHOD EMPLOYED IN THE**  
**ARGUMENT OF PROFESSOR JAENICKE OF THE**  
**FEDERAL REPUBLIC OF GERMANY IN THE NORTH SEA**  
**CONTINENTAL SHELF CASES (PLEADINGS, VOL. II, P. 29),**  
**EXTENDED TO 200 NAUTICAL MILES (370 KM.)**  
**SEAWARD OF THE COASTLINE**



**UNITED STATES MEMORIAL, FIGURE 25 AND UNITED STATES**  
**REPLY, FIGURE 5 AMENDED TO SHOW A THREE-SIDED**  
**CONCAVITY TWICE AS WIDE AS DEEP**



A



B

Figure 33

Close-up of Figure 32  
Comparison of the  
Relative Effects of a  
Headland and a  
Three-Sided  
Concavity on an  
Equidistance Line

Figure 37

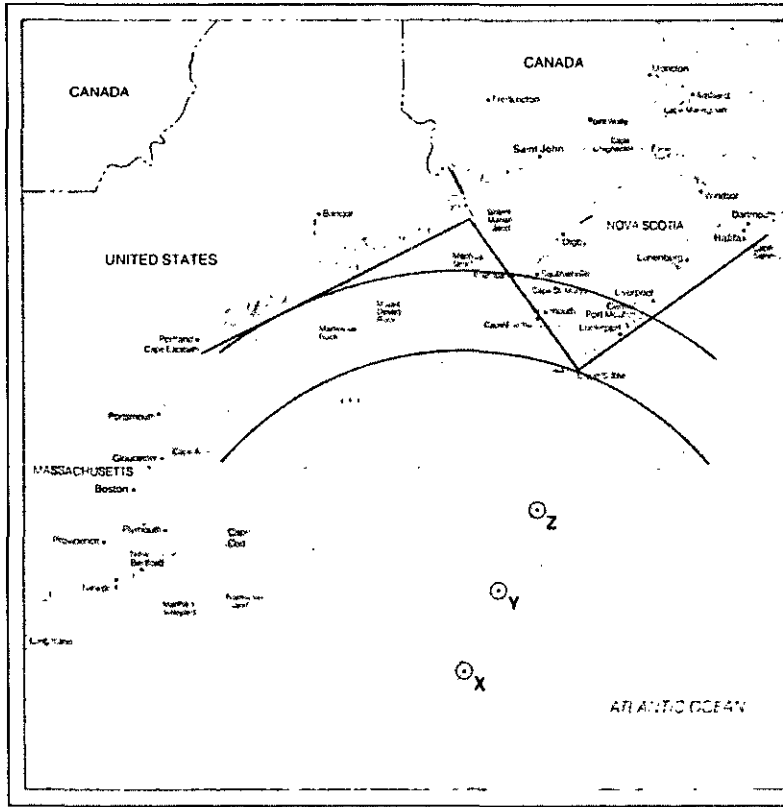
# The Proximity Test

**A**  
Coastal fronts used in testing the relative proximity of Nova Scotia and the state of Maine to Georges Bank

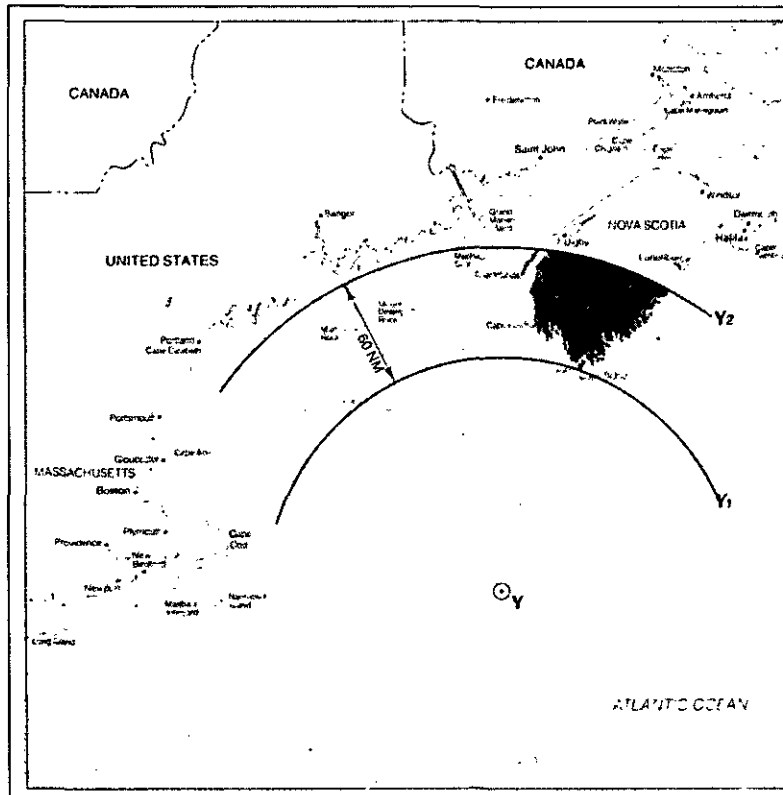
**B**  
Area of Nova Scotia that lies closer to the farthest point claimed by Canada on Georges Bank than does the coastal front of the state of Maine

**C**  
Area of Nova Scotia that lies closer to the central part of the disputed area on Georges Bank than does the coastal front of the state of Maine

**D**  
Area of Nova Scotia that lies closer to the northeast peak of Georges Bank than does the coastal front of the state of Maine



A



C

Depths in Metres  
Projection—Mercator  
Scale—1:7 300 000 at 41°N



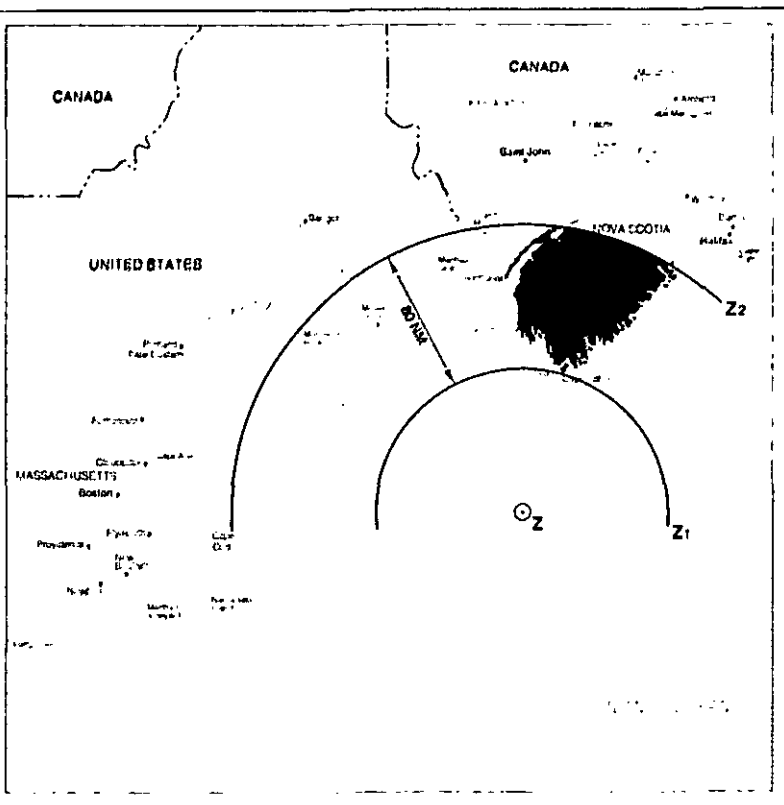
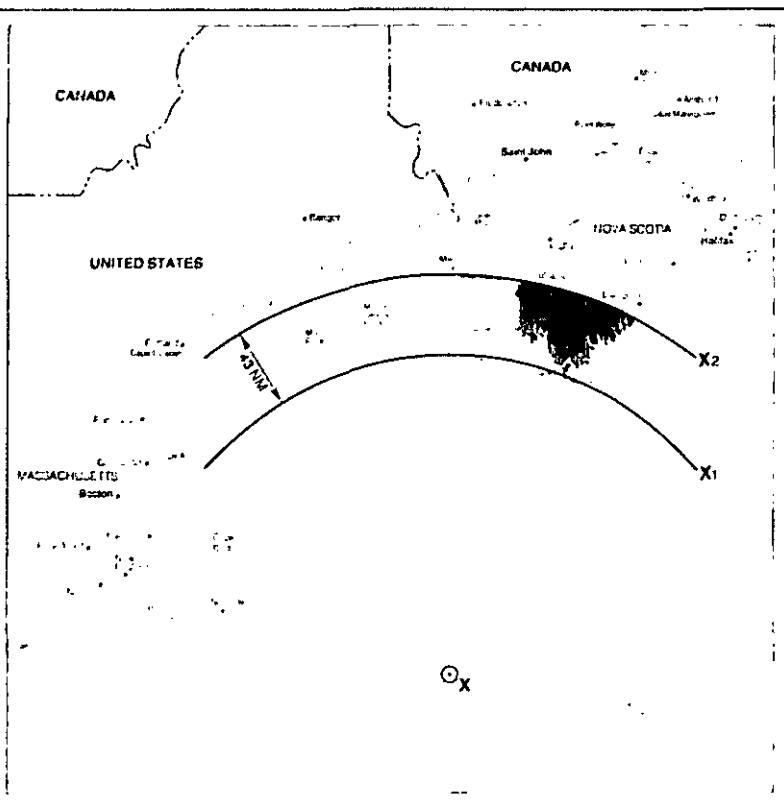







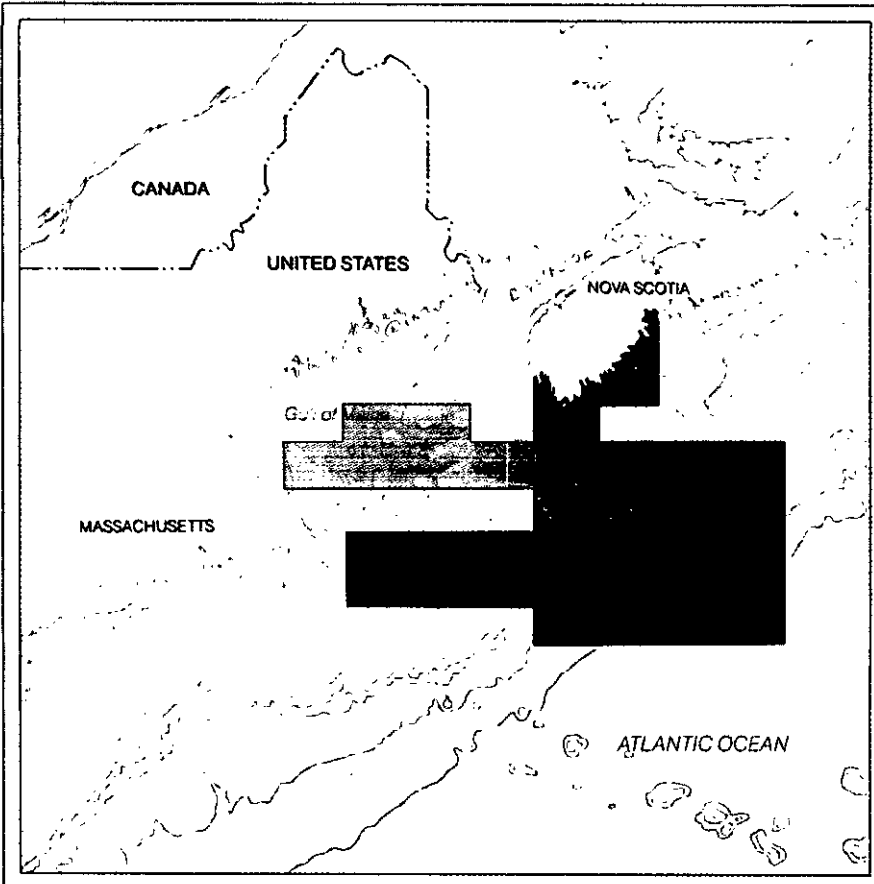
Figure 56

Sea Surface  
Temperatures of the  
Gulf of Maine Area

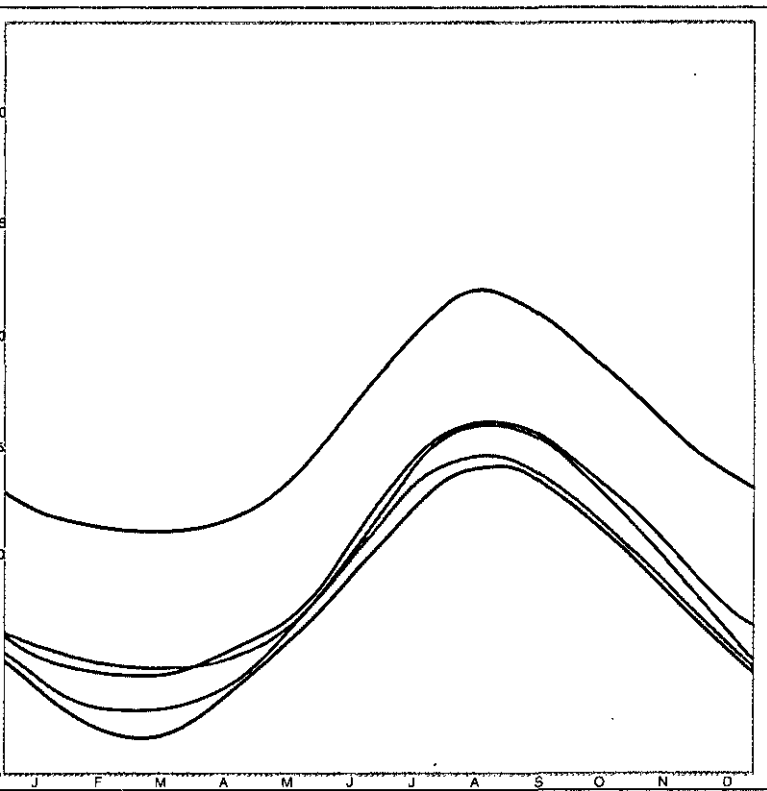
-  Western Scotian Shelf
-  Gulf of Maine
-  Browns Bank
-  Georges Bank
-  Slope Water

Source: Derived from  
*Canadian Counter-Memorial,*  
*Annexes, Vol. I, Figure 14.*

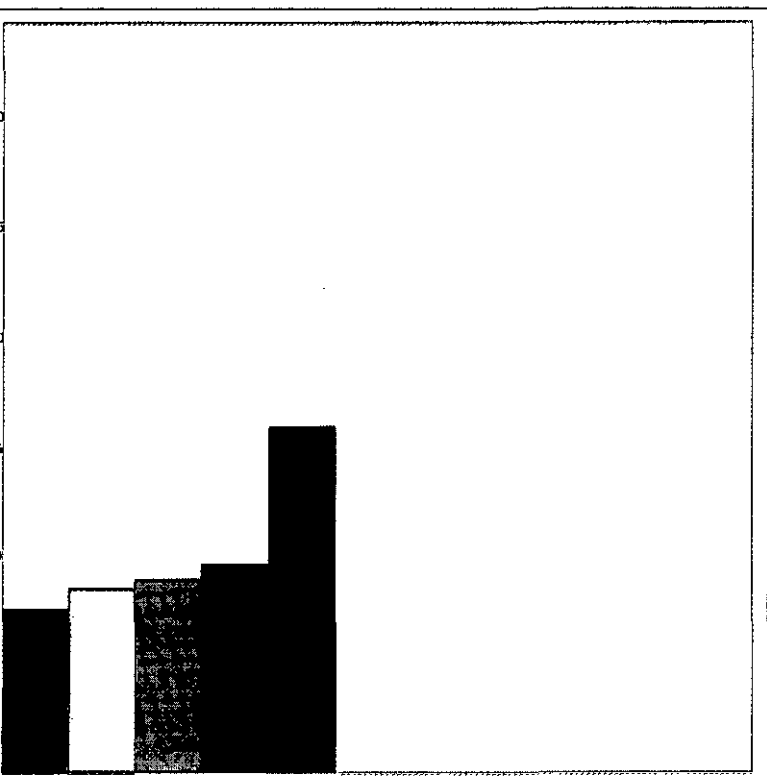
Depth in Metres  
Projection—Mercator  
Scale—1:10 000 000 at 41°N



A Selected Areas



Monthly Temperatures (°C)



Annual Temperatures (°C)

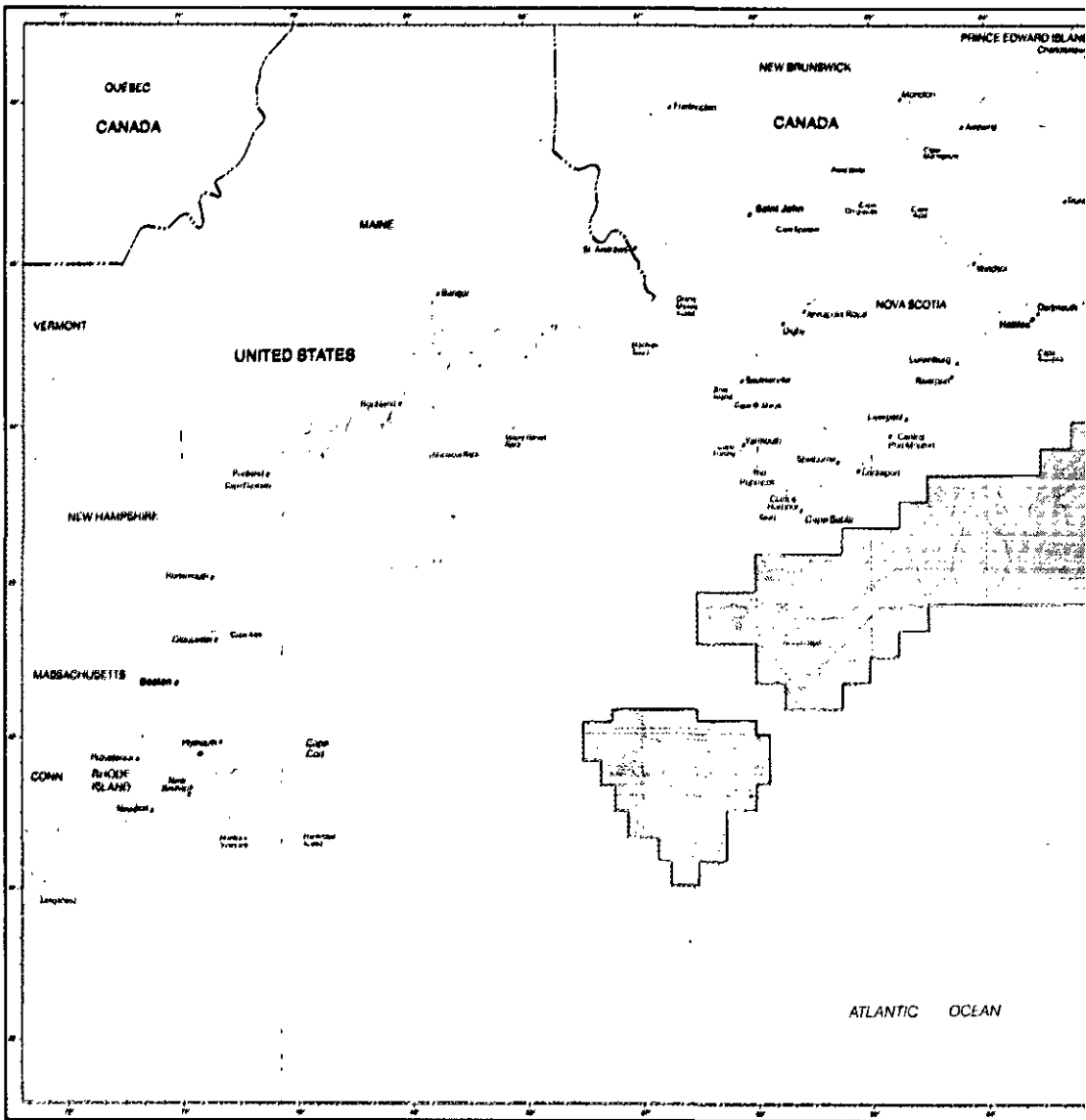
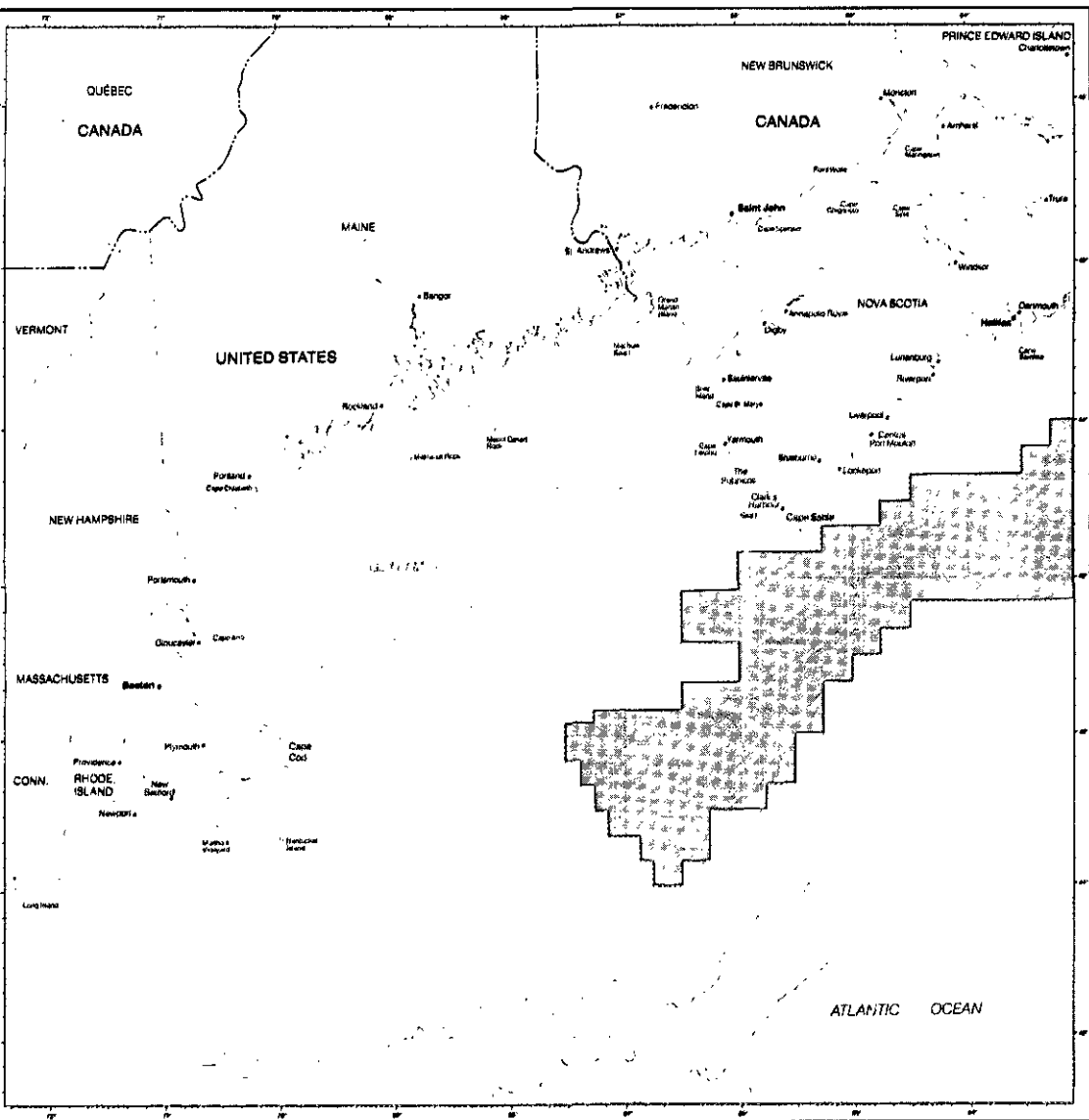


Figure 61

Part of the Permit Map Attached to the Letter of 8 April 1965 from the Canadian Department of Northern Affairs and National Resources to the United States Department of the Interior Depicted on a Canadian Basemap of the Gulf of Maine Area

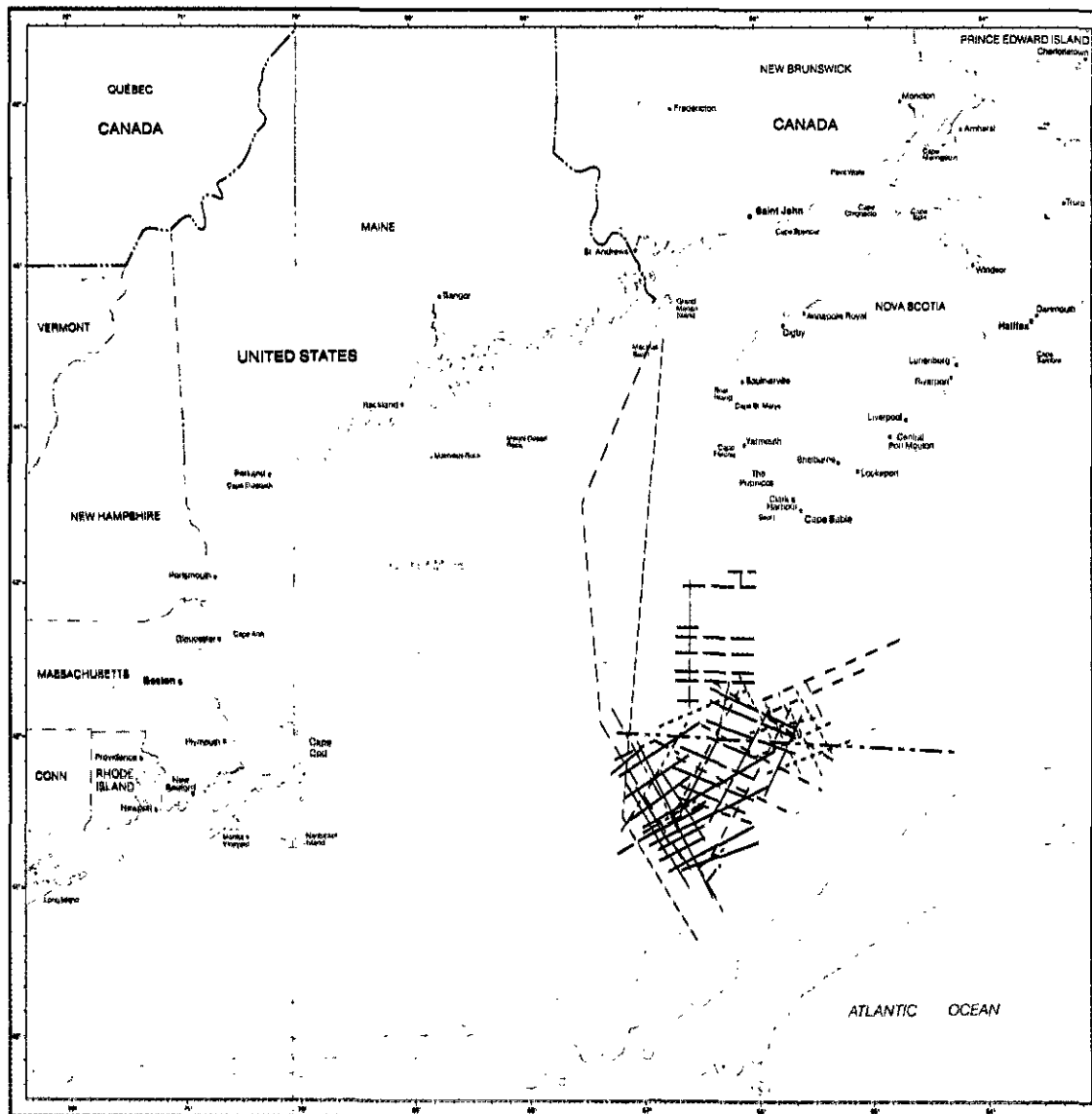
Source: *Canadian Memorial Annexes*, Vol. II, Annex 3, p. 10.

Depth in Metres  
Projection - Mercator  
Scale - 1:3 240 000 at 41°N












**Figure 62**  
 Part of the Permit Map Attached to the Letter of 30 August 1966 from the Canadian Department of External Affairs to the United States Embassy at Ottawa. Depicted on a Canadian Basemap of the Gulf of Maine Area

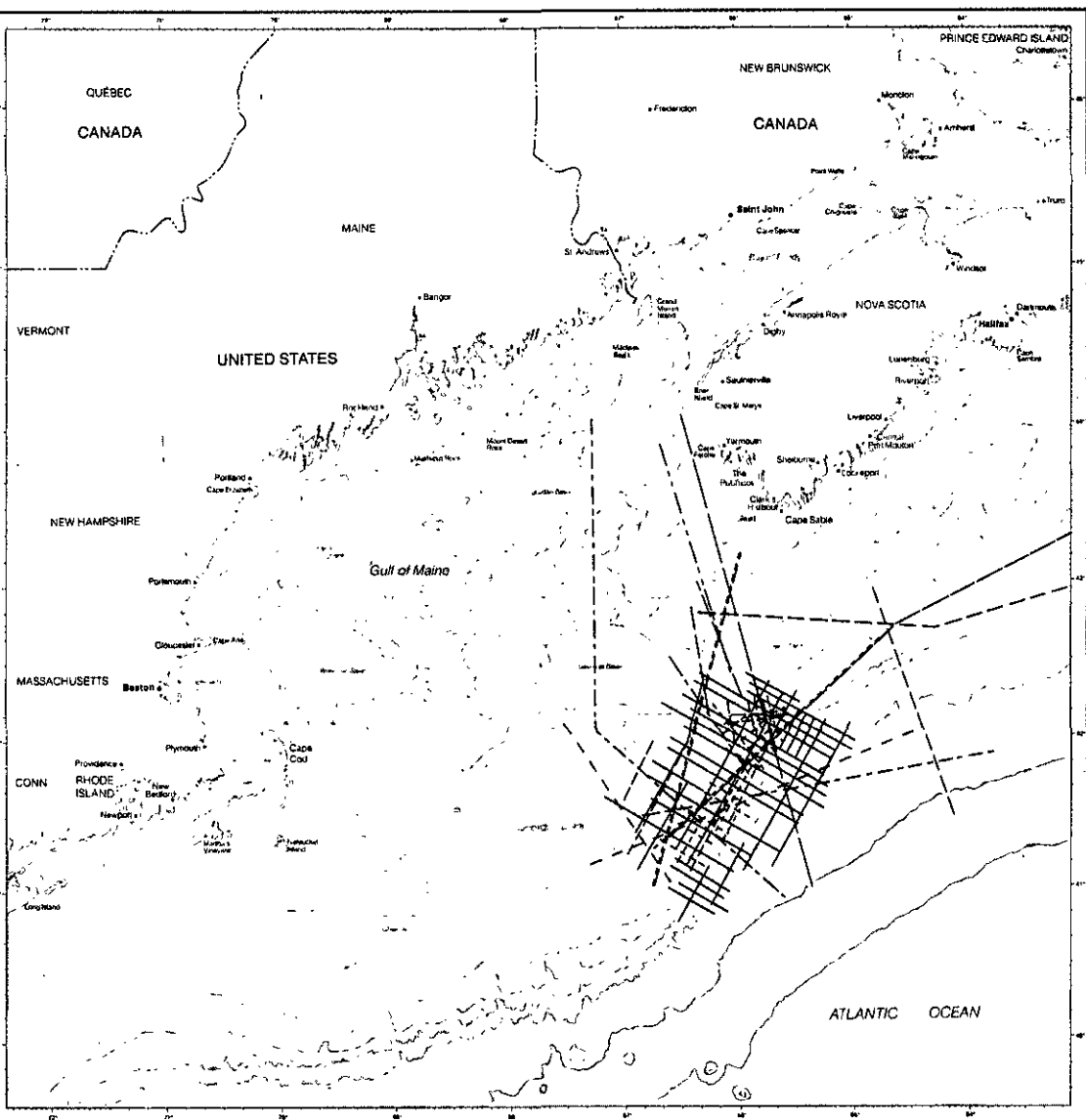
Depth in Metres  
 Projection—Mercator  
 Scale—1:3 240 000 at 41°N














**Figure 72A**  
**Seismic Lines**  
**Shot by Canadian**  
**Licensees and**  
**Permittees in the**  
**Gulf of Maine-**  
**Georges Bank Area,**  
**1965-1969**

-  Chevron, 1965
-  Texaco, 1965
-  Mobil, 1966
-  Mobil, 1967
-  Mobil, 1968
-  Texaco, 1968
-  Central Del Rio, 1969
-  Chevron, 1969
-  Texaco, 1969

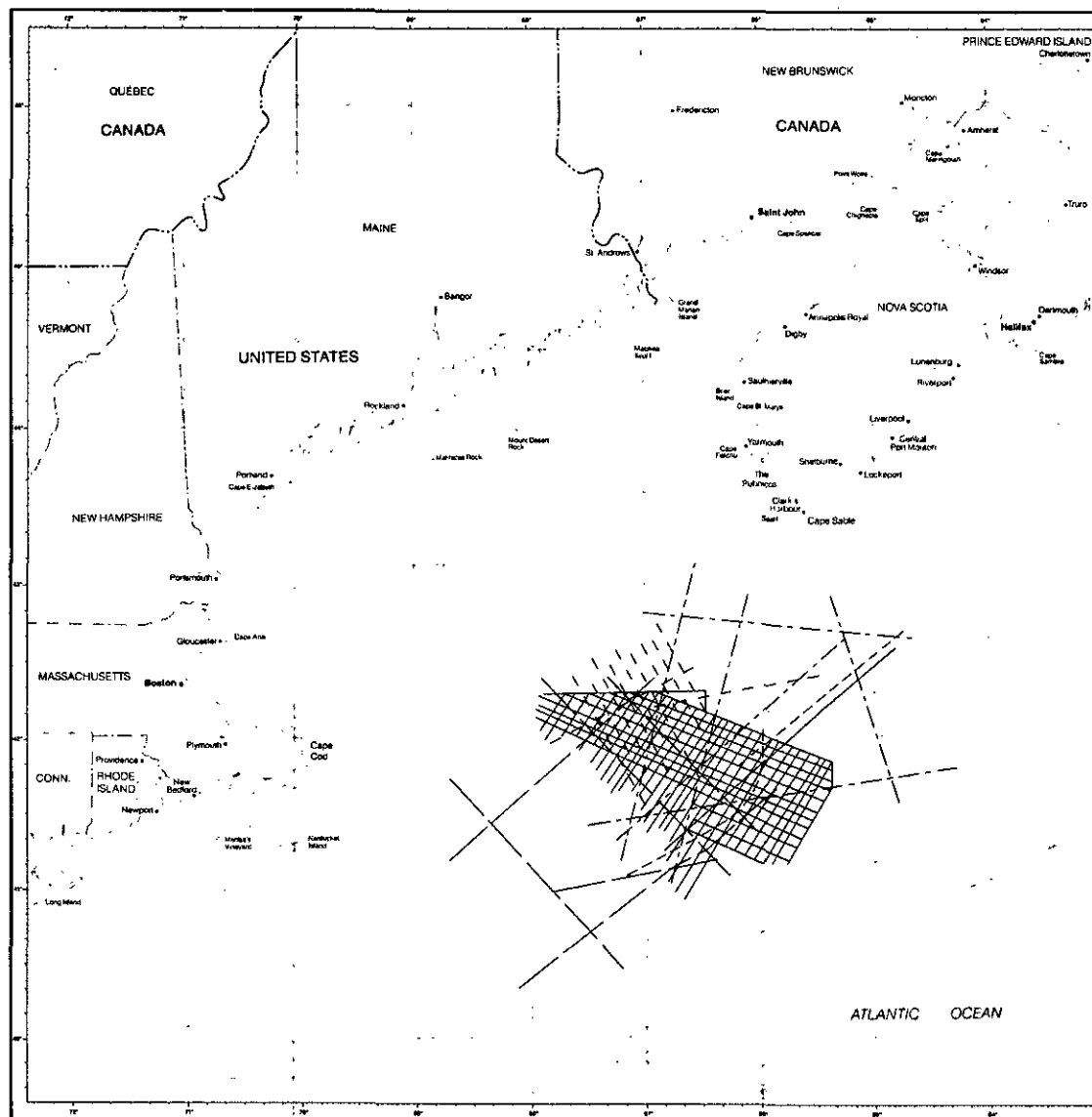
Depth in Metres  
 Projection - Mercator  
 Scale - 1:3240 000 at 41°N



**Figure 72B**  
**Seismic Lines**  
**Shot by Canadian**  
**Licensees and**  
**Permittees in the**  
**Gulf of Maine-**  
**Georges Bank Area,**  
**1970-1973**






	Digicon, 1970		Digicon, 1972
	Texaco, 1970		GSI, 1972
	Chevron, 1971		Texaco, 1972
	Digicon, 1971		Chevron, 1973
	Texaco, 1971		Mobil, 1973
	Chevron, 1972		

Depth in Metres  
 Projection—Mercator  
 Scale—1:3 240 000 at 41°N



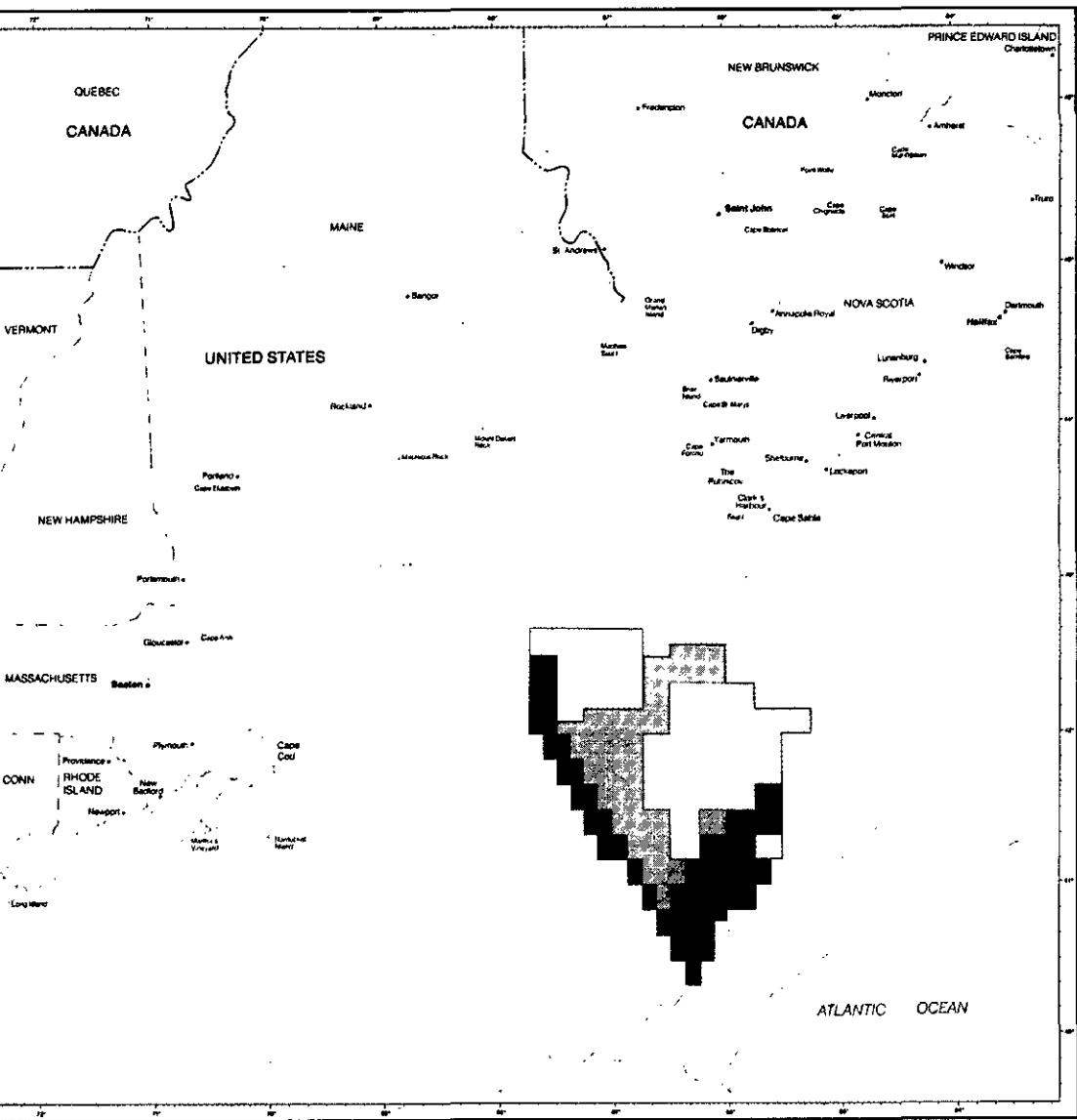
**Figure 72C**

**Seismic Lines  
Shot by Canadian  
Licensees and  
Permittees in the  
Gulf of Maine-  
Georges Bank Area,  
1974-1979**







-  Canadian Superior, 1974
-  Digicon, 1974
-  Digicon, 1975
-  Exxon, 1975
-  Texaco, 1976

Depths in Meters  
Projection - Mercator  
Scale - 1:3 240 000 at 41°N





**Figure 72D**  
**Canadian Oil and Gas Permits in the Gulf of Maine-Georges Bank Area**

-  Mobil
-  Siebens
-  Texaco
-  Chevron
-  Dome
-  Fairholme Development

Depths in Metres  
 Projection—Mercator  
 Scale—1:3 240 000 at 41°N

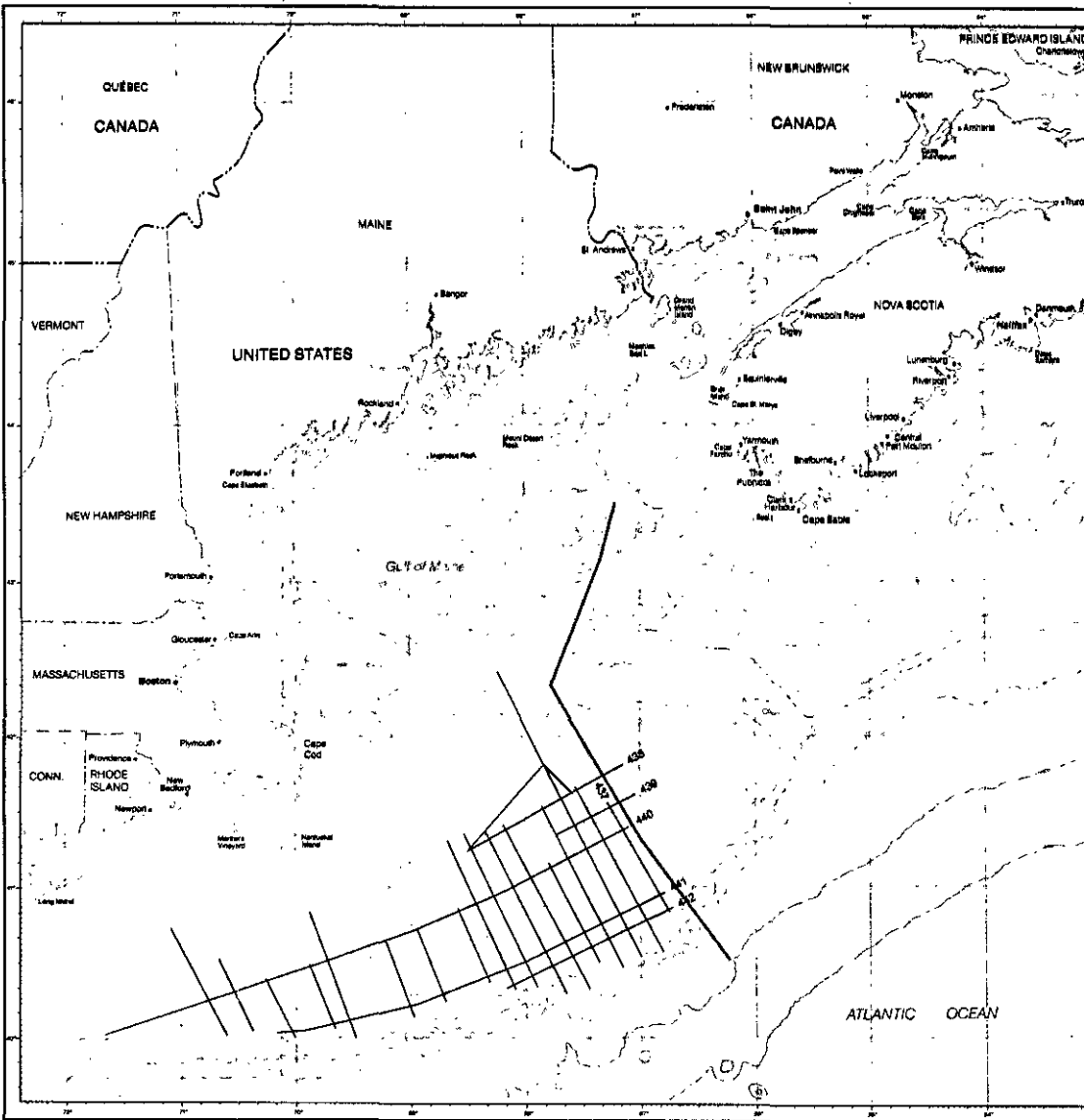


Figure 74

The 1969 East Coast Joint Survey



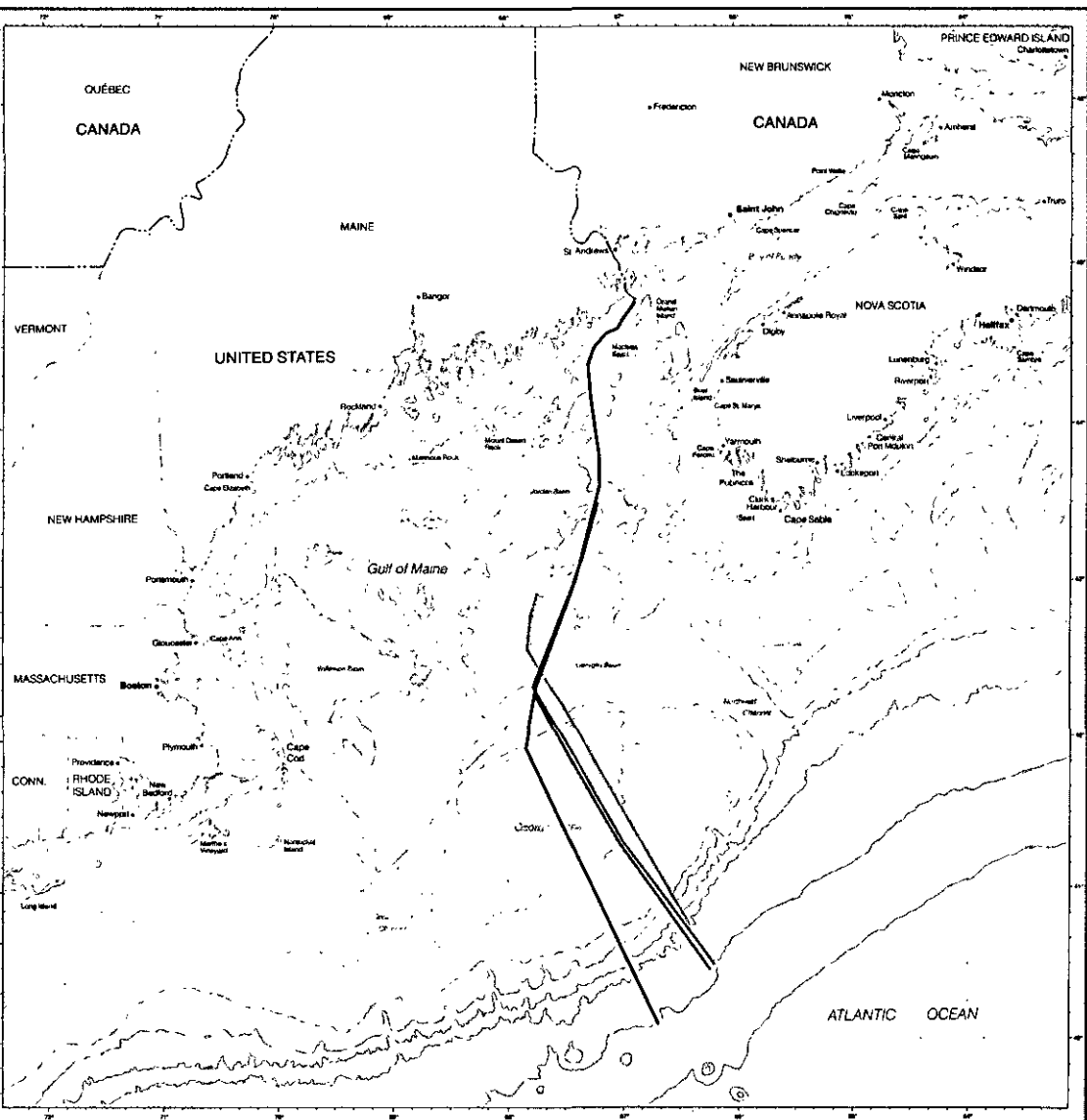
Survey lines shot by Digicon pursuant to United States geophysical permit E2-69







The United States BLM line

Notes: Attachment V to one of the documents pertaining to this permit notes that "Permit E2-69 authorized operations along the numbered lines shown on plat received with the application. *Portions of two of the lines extend to the Canadian side of the BLM line.*" (*Italics added.*) Canadian Reply, Annexes, Vol II, p. 574.

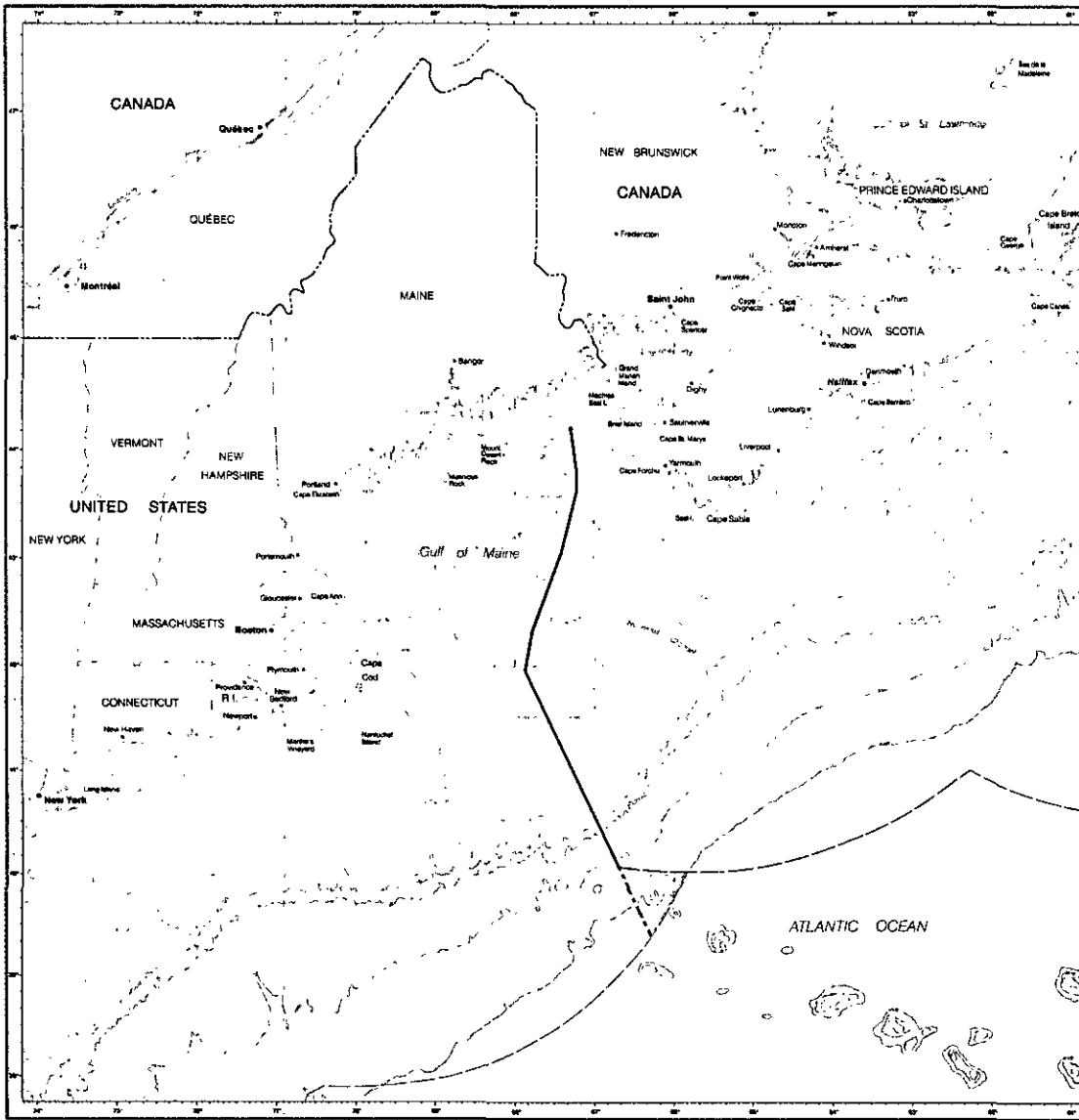
Depths in Metres  
Projection—Mercator  
Scale—1:3 240 000 at 41°N







**Figure 76**  
**Applications of the**  
**Equidistance**  
**Method in the Gulf**  
**of Maine Area**

-  Strict equidistance line
-  United States BLM line
-  United States surveys boundary
-  Canadian line

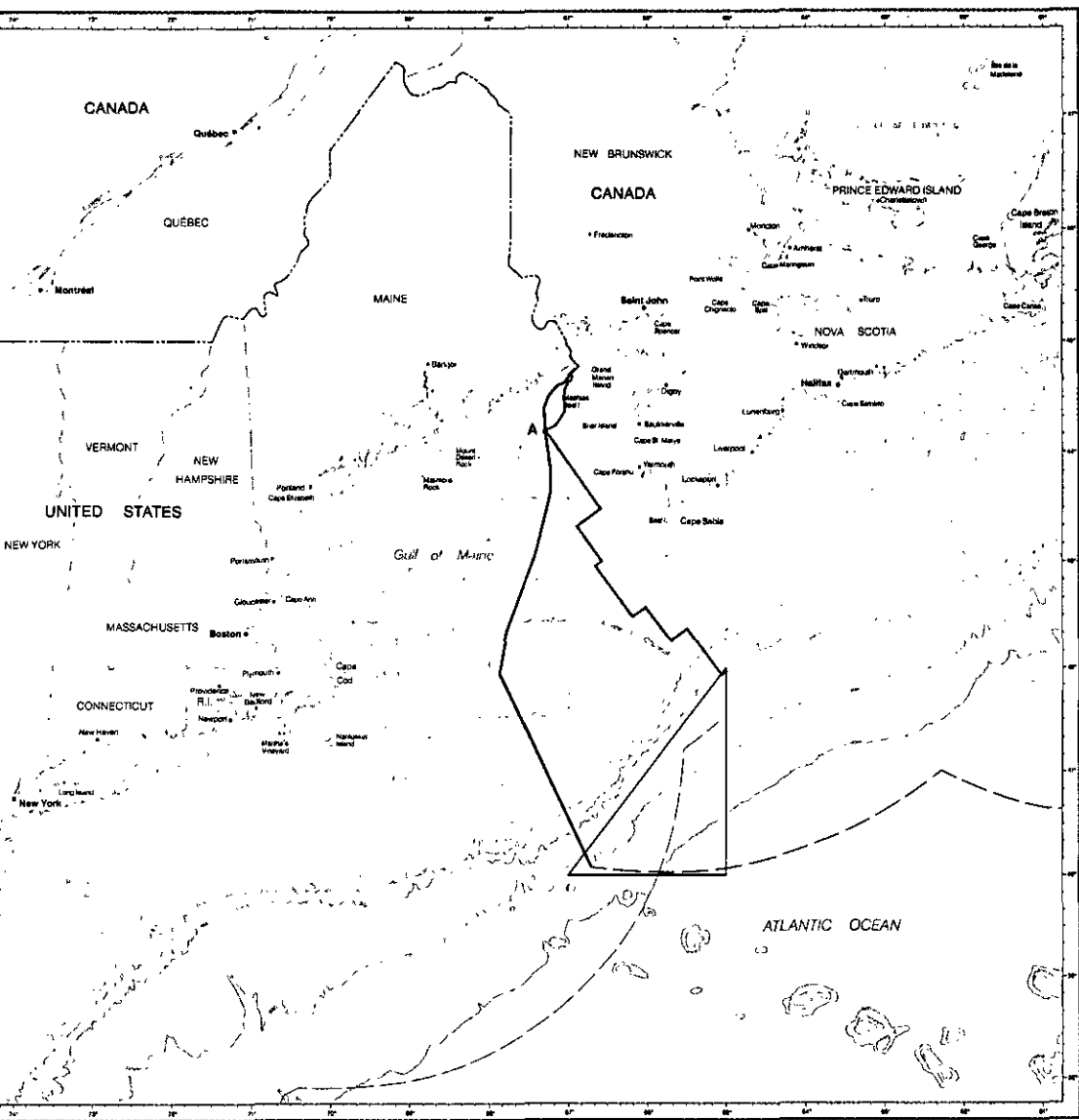
Depths in Metres  
 Projection - Mercator  
 Scale - 1:3 240 000 at 41°N



**Figure 89**  
**The "Grey Area":**  
**The Canadian Line**

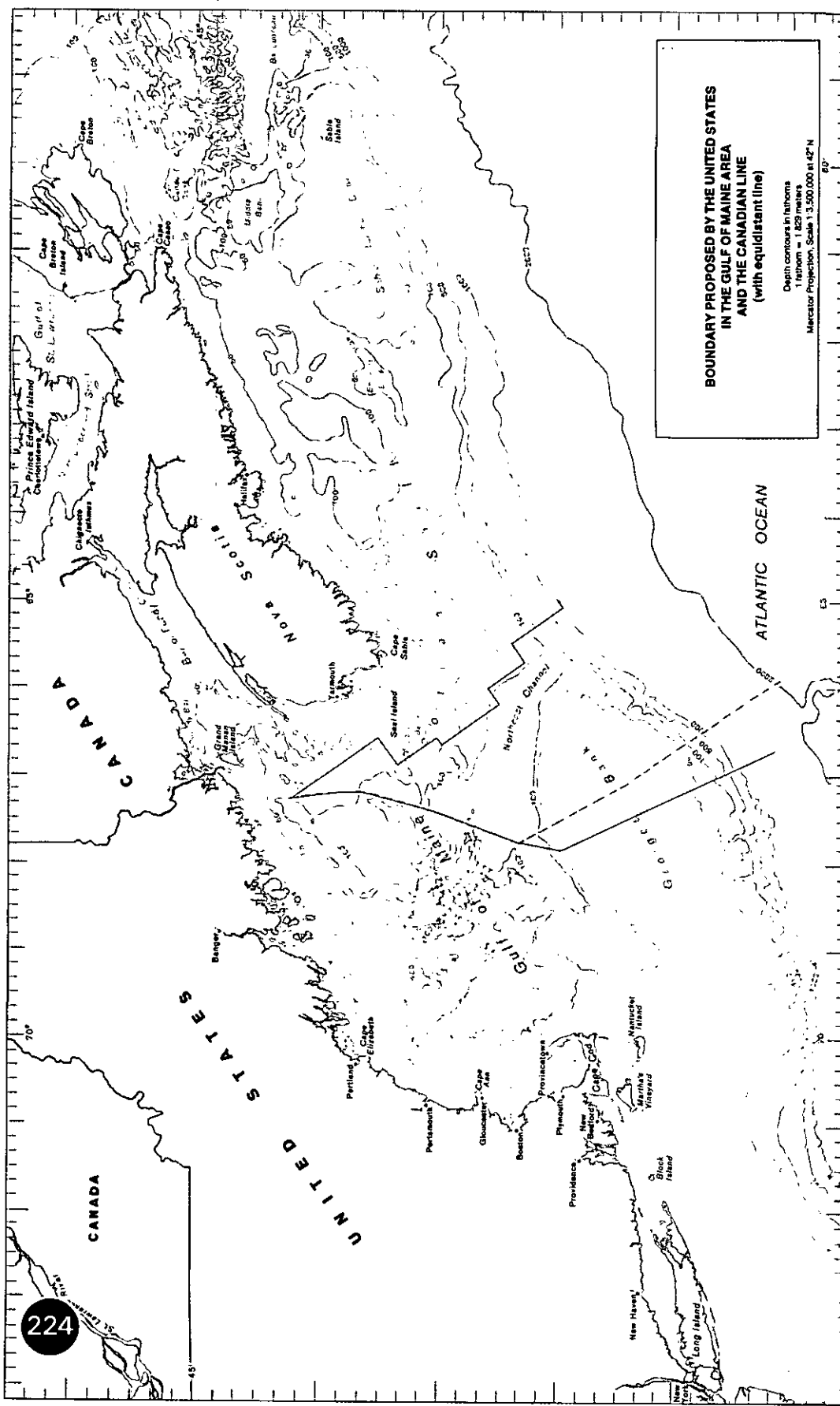
-  Canadian line
-  Outer limit of Canadian 200-mile zone
-  Outer limit of United States 200-mile zone
-  "Grey Area": 771 square nautical miles

Depths in Metres  
 Projection - Mercator  
 Scale - 1:4,700,000 at 41°N

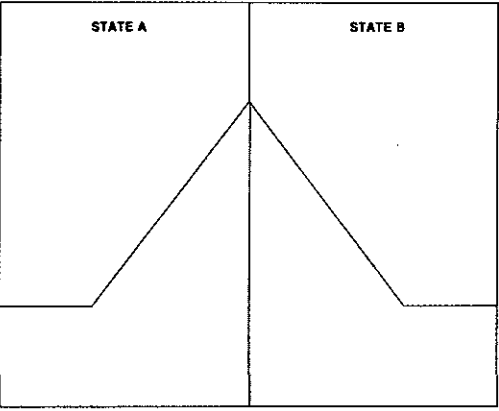


**Figure 97**  
**The Canadian Line**  
**and the 1982 United**  
**States Boundary**  
**Proposal**

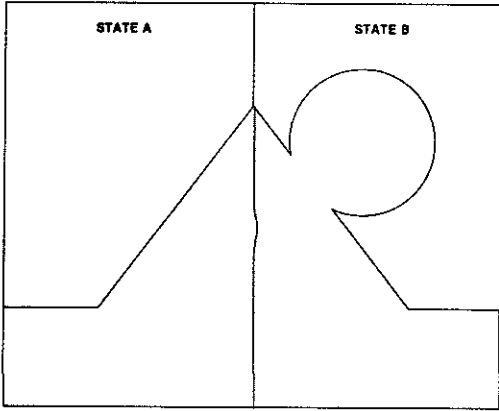
Depths in Metres  
 Projection—Mercator  
 Scale—1:4 700 000 at 41°N



A

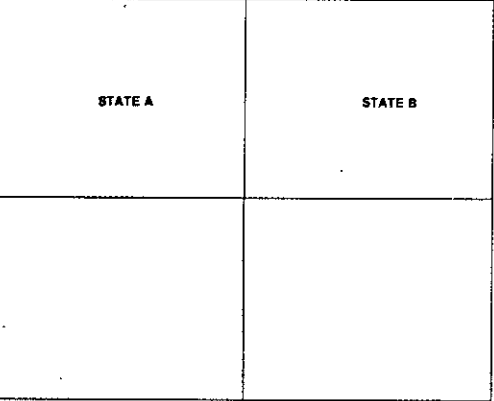


B

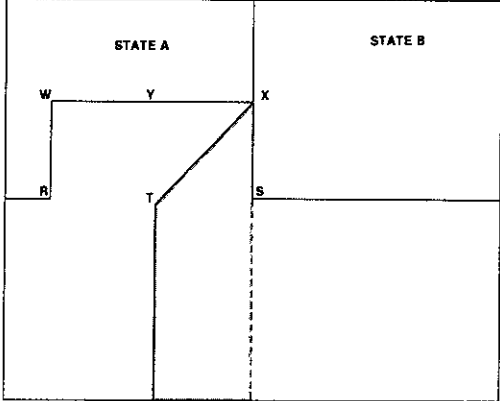


225

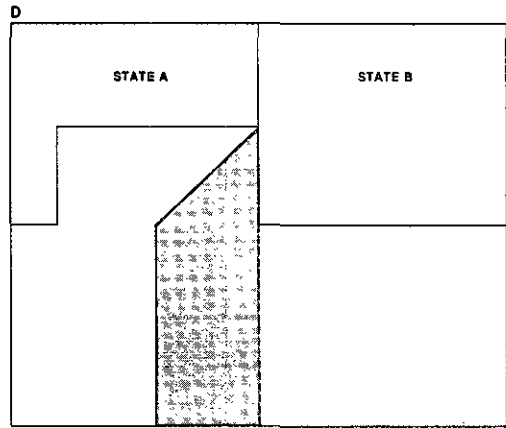
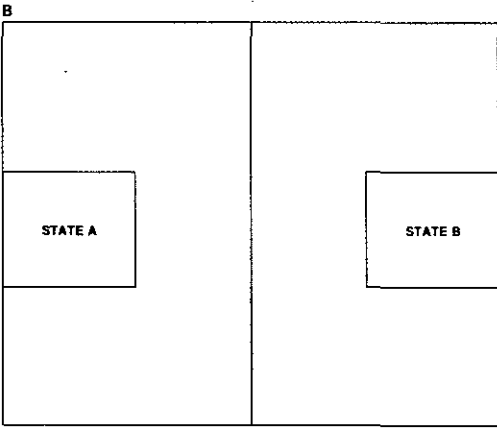
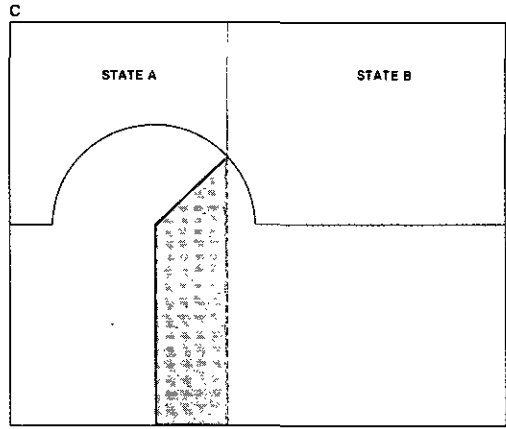
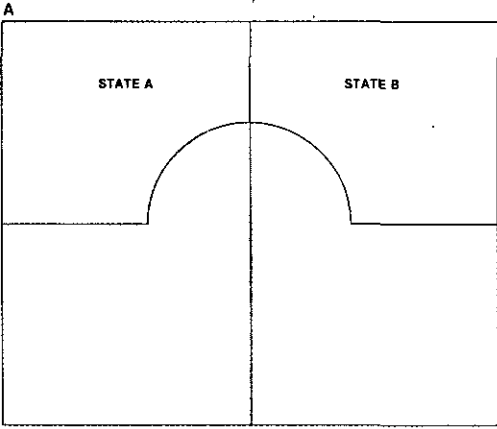
A



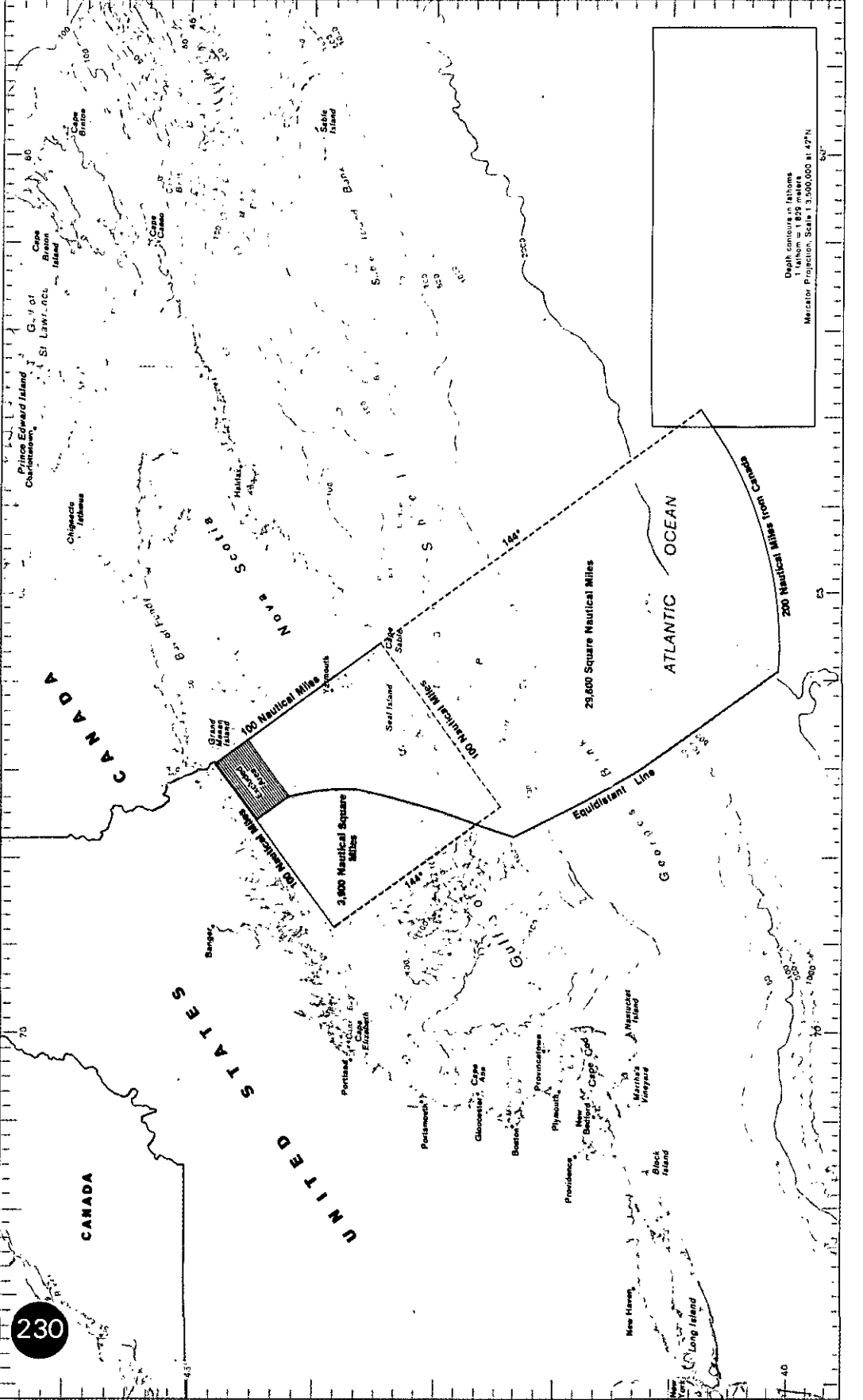
B



226







Depth contours in fathoms  
 1 fathom = 1.829 meters  
 Mercator Projection, Scale 1:3,000,000 at 47°N

AN ILLUSTRATION OF THE PRACTICAL EFFECTS OF VERTICAL EXAGGERATION USING THE TOPOGRAPHY OF NORTH AMERICA

West Coast of British Columbia

East Coast of Nova Scotia



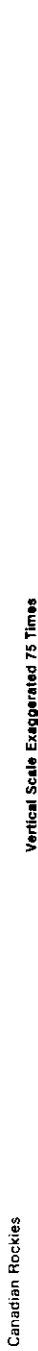
West Coast of British Columbia

East Coast of Nova Scotia



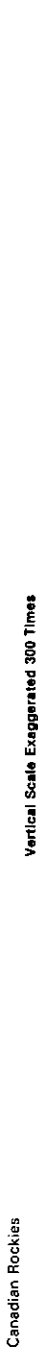
West Coast of British Columbia

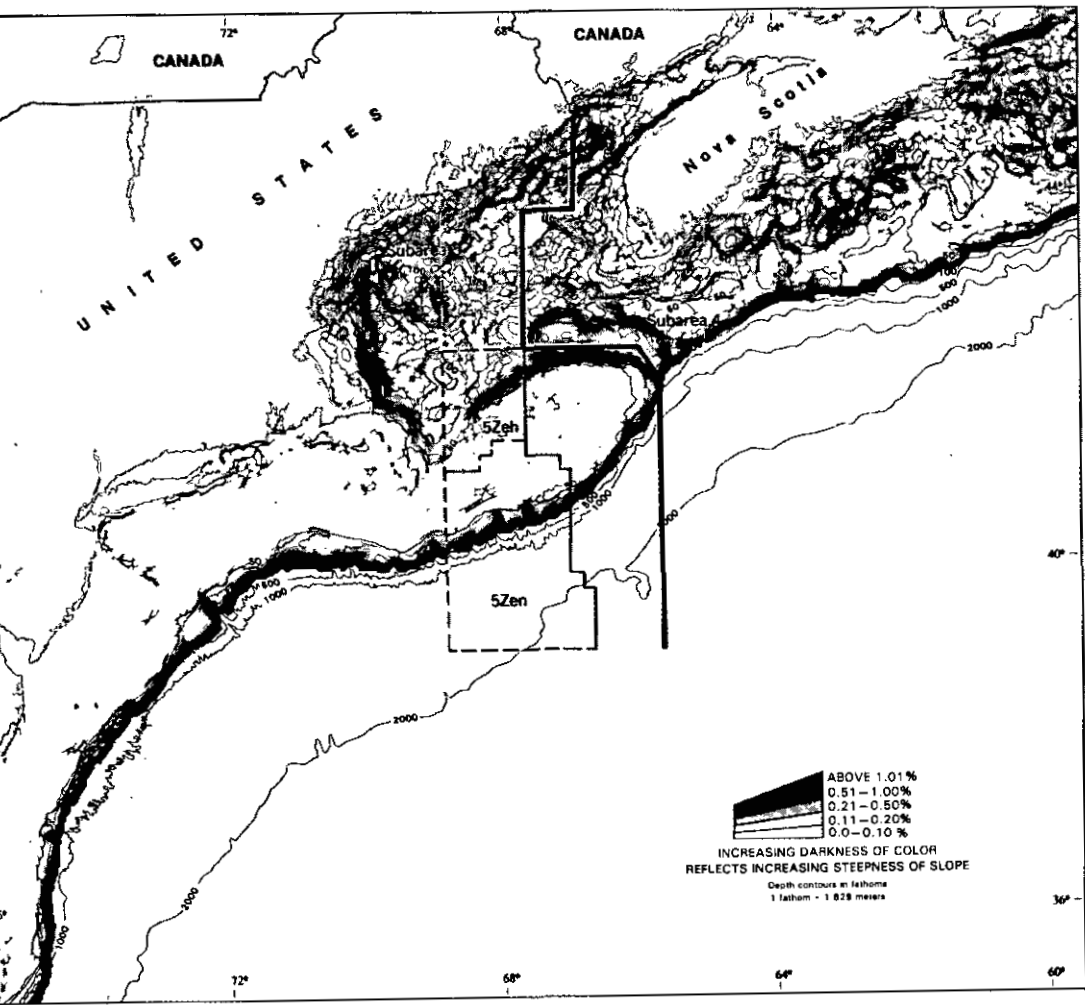
East Coast of Nova Scotia



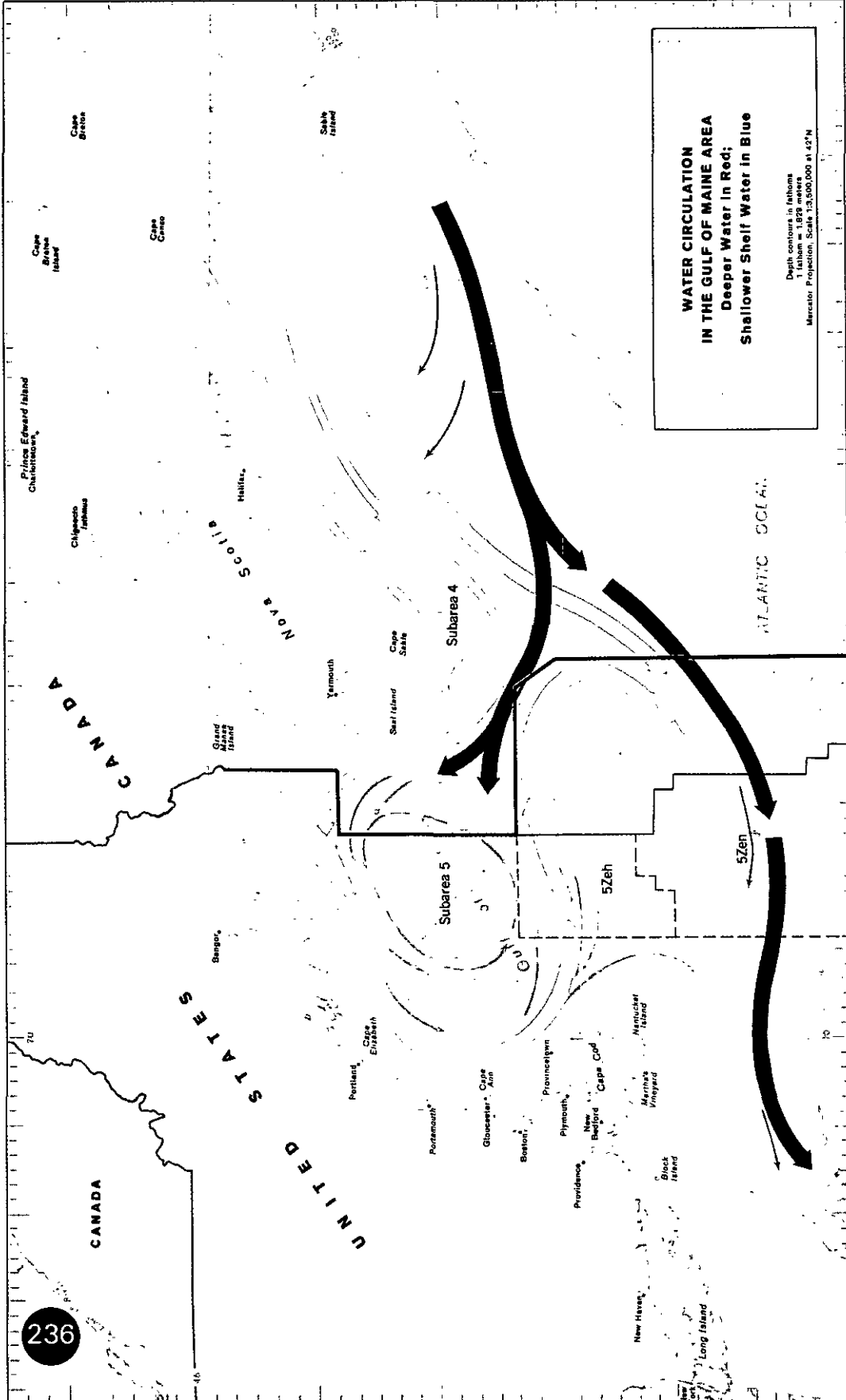
West Coast of British Columbia

East Coast of Nova Scotia





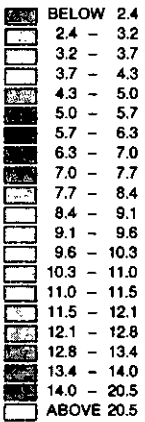
**LABELED GRADIENTS — THE RATE OF DESCENT**



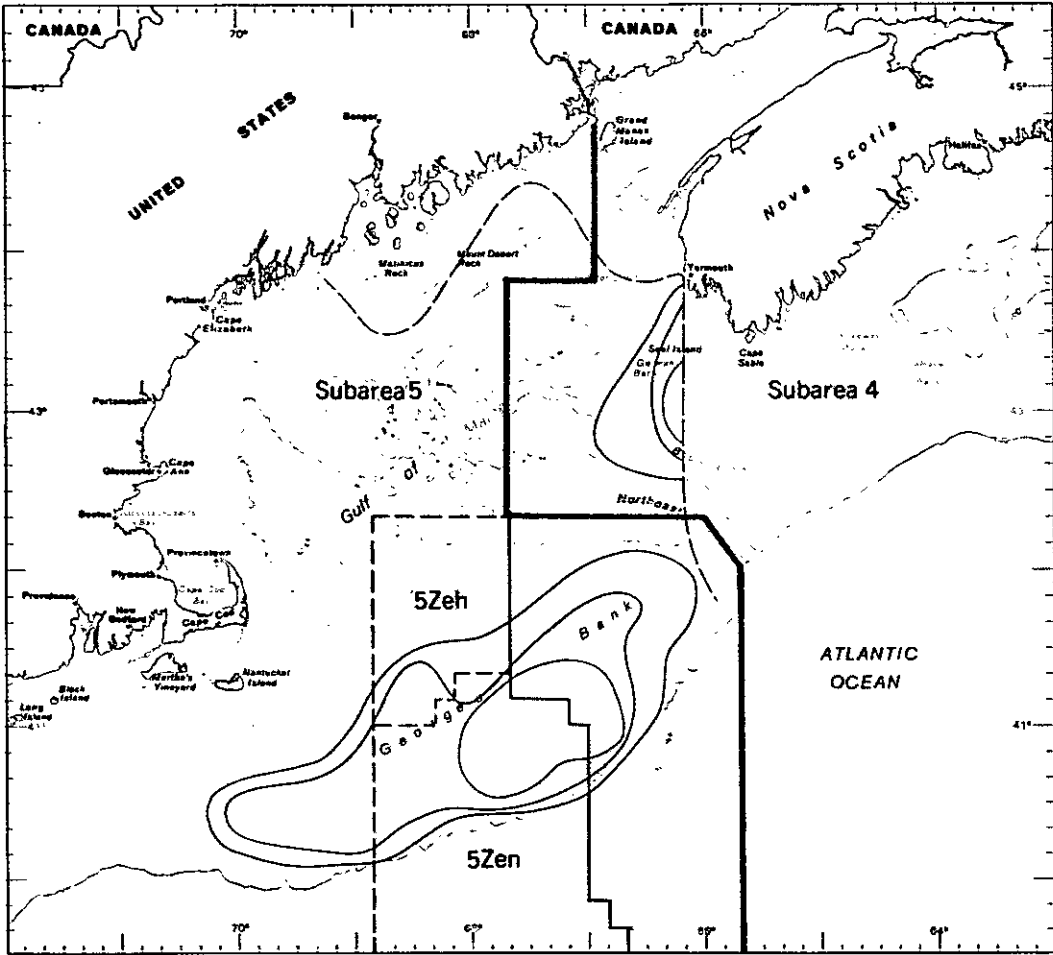


Surface temperatures with temperature gradients — 14 June 1979

DEGREES CENTIGRADE






Portion of United States Counter-Memorial, Vol. I, Annex I, Figure 36



MAY-JUNE, 1981

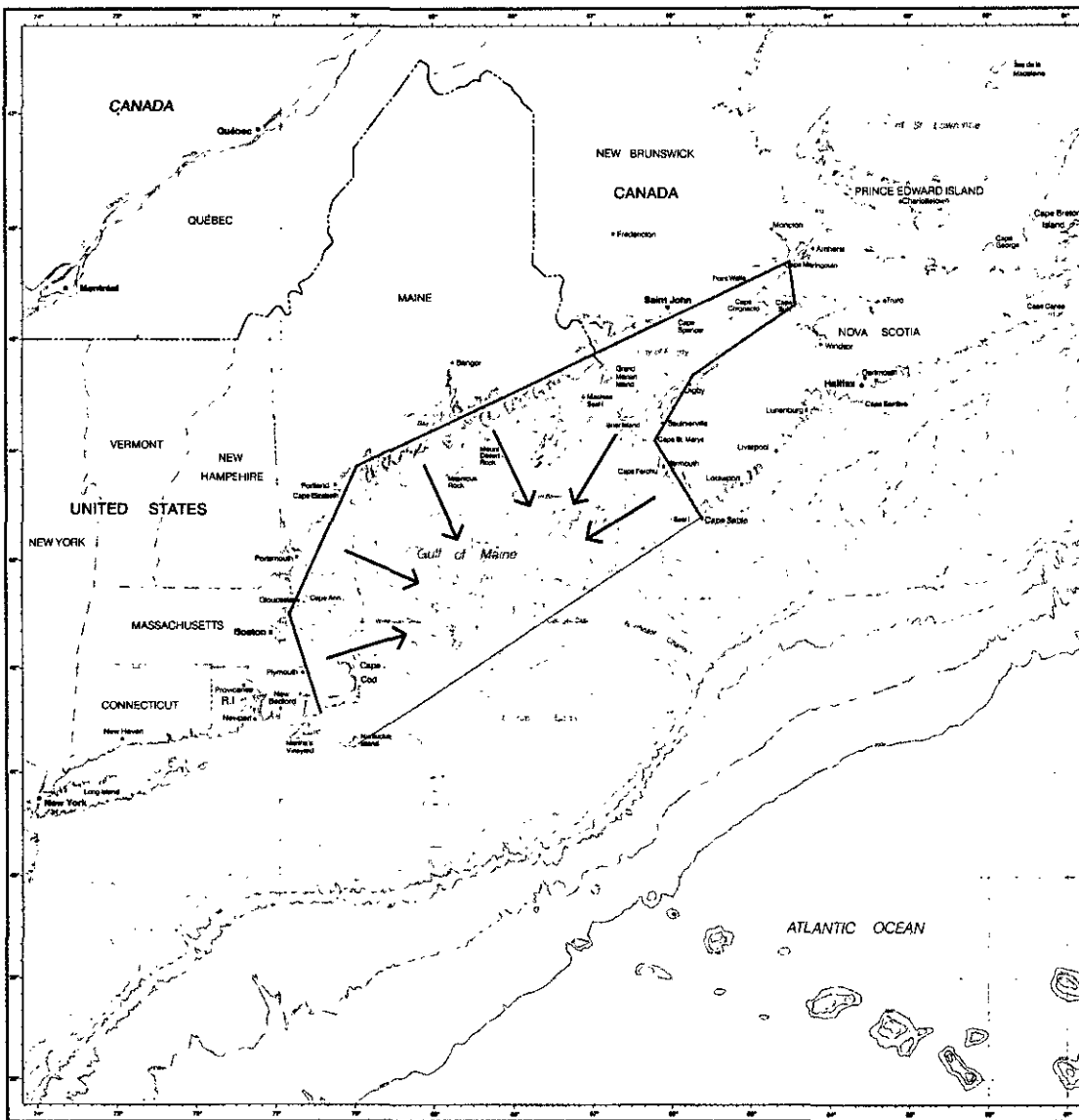
**DISTRIBUTION OF HADDOCK LARVAE**

-  1-10
-  11-100
-  101-1000

Number of Larvae per 10 Square Meters of Surface Area

--- Eastern Limit of Sampling

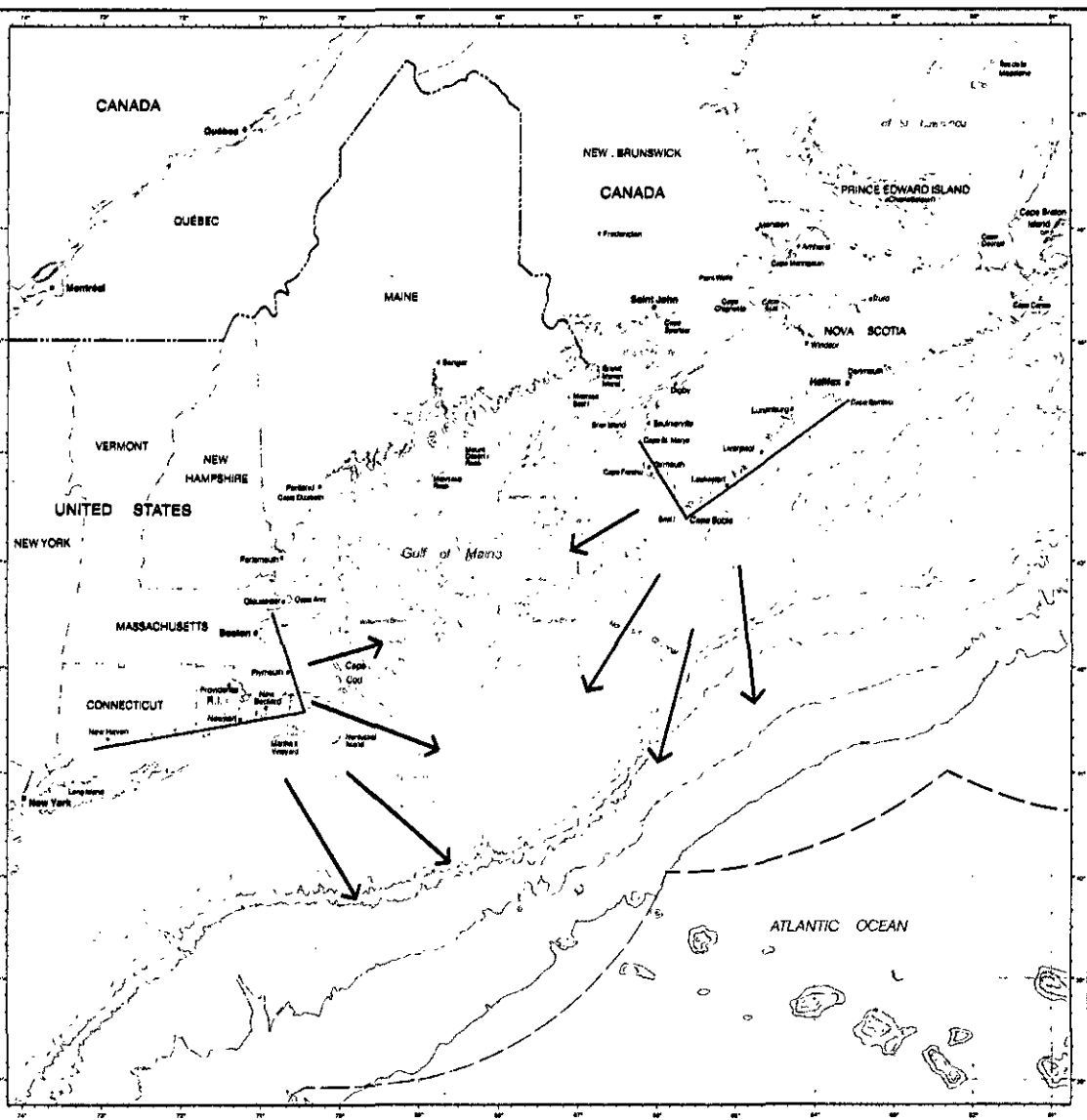




**Figure 121**  
**Coastal Front**  
**Extensions in the**  
**Gulf of Maine Area:**  
**Inner Area**

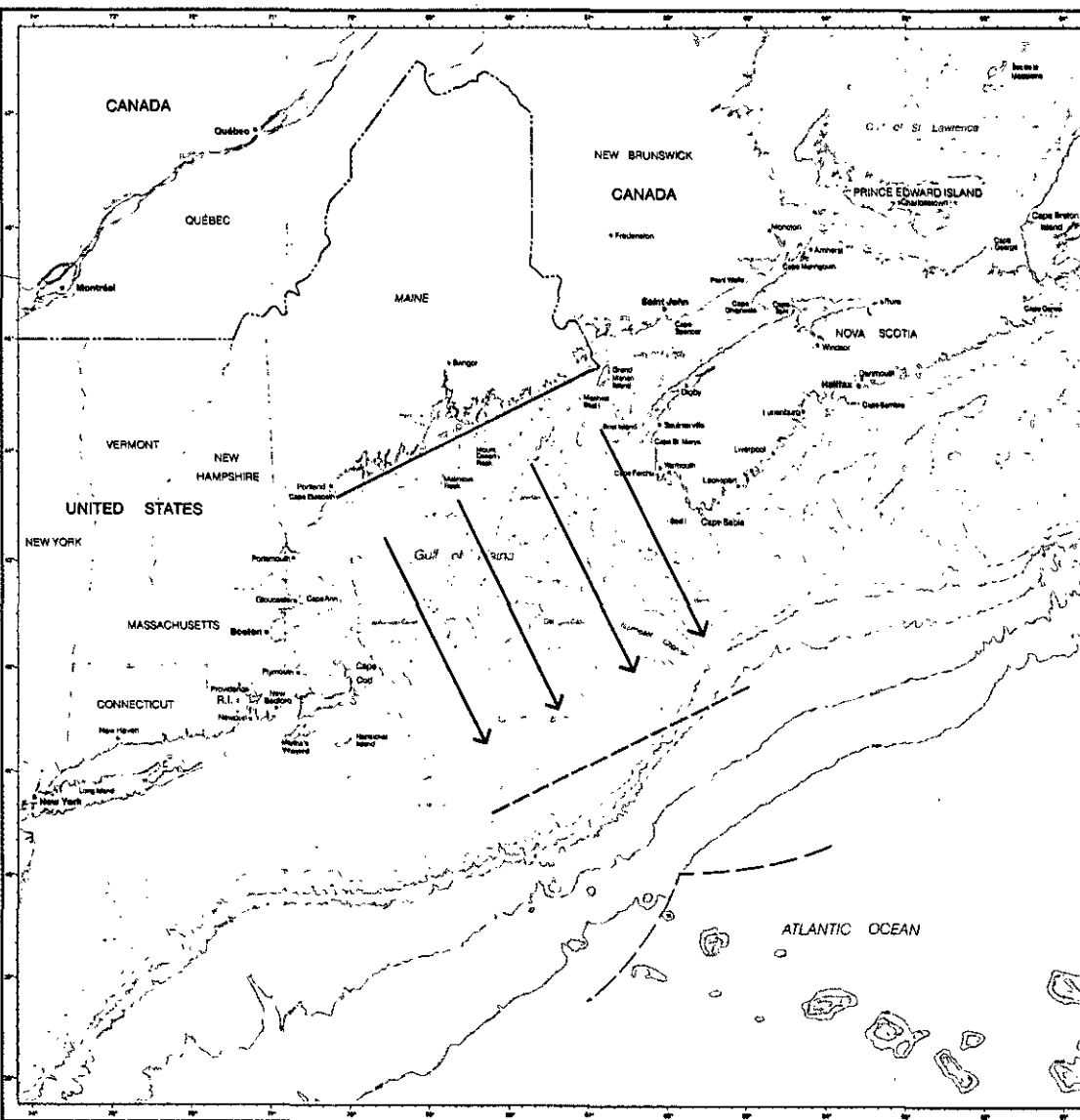
Depth in Metres  
 Projection - Mercator  
 Scale - 1:4 700 000 at 41°N





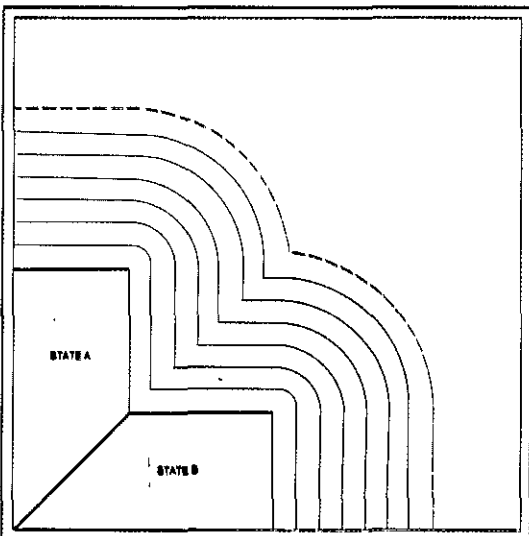
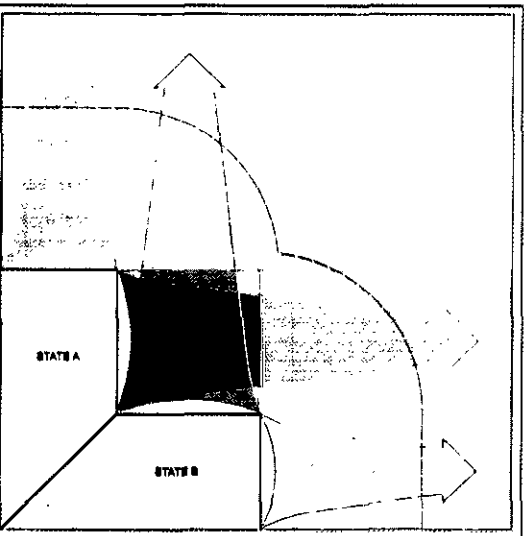
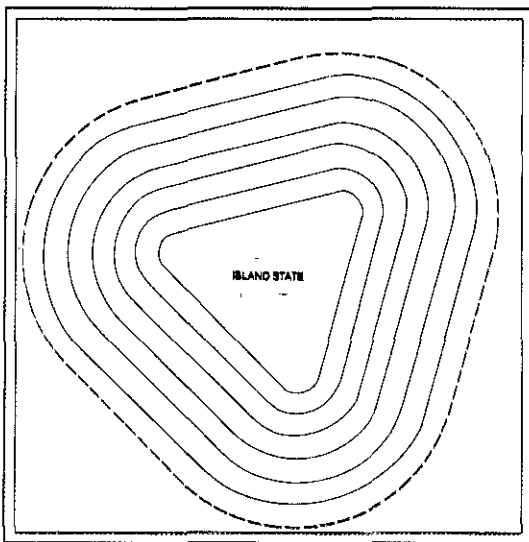
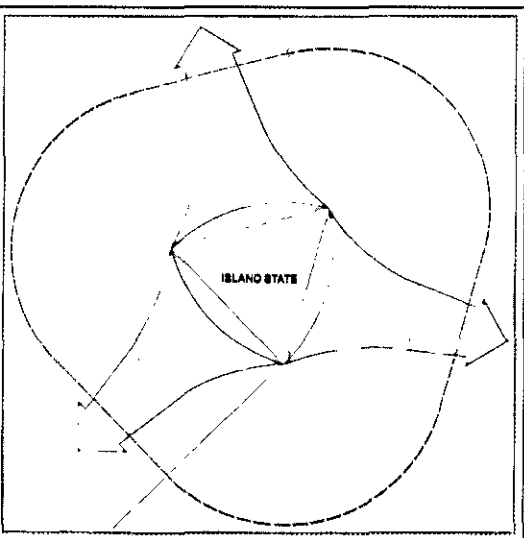
**Figure 122**  
**Coastal Front**  
**Extensions in the**  
**Gulf of Maine Area:**  
**Outer Area**

Depth in Metres  
 Projection—Mercator  
 Scale—1:4 700 000 at 41°N



**Figure 123**  
**United States**  
**Concept of the**  
**Perpendicular**  
**Extension of the**  
**Coast of Maine**

Depths in Metres  
 Projection—Mercator  
 Scale—1:4 700 000 at 41°N



**Figure 131**  
 Seaward  
 Extensions  
 Perpendicular to  
 Coastal Fronts in  
 the Manner  
 Depicted in Figure  
 31 of the United  
 States Memorial  
 Compared to the  
 Radial Extension of  
 the Coast as  
 Described in  
 Paragraphs 150 to  
 152 and 564 to 568  
 of the Canadian  
 Counter-Memorial

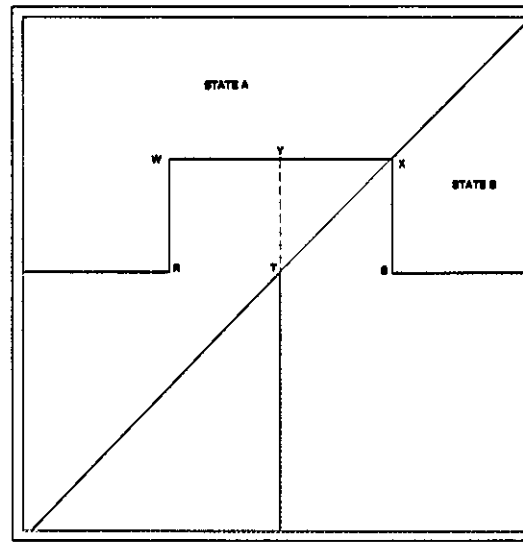
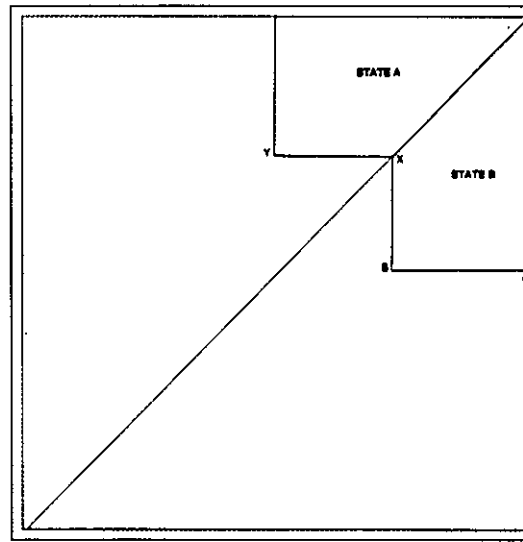
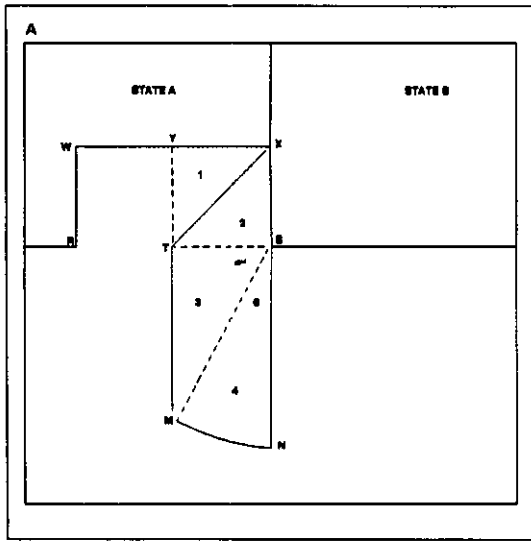
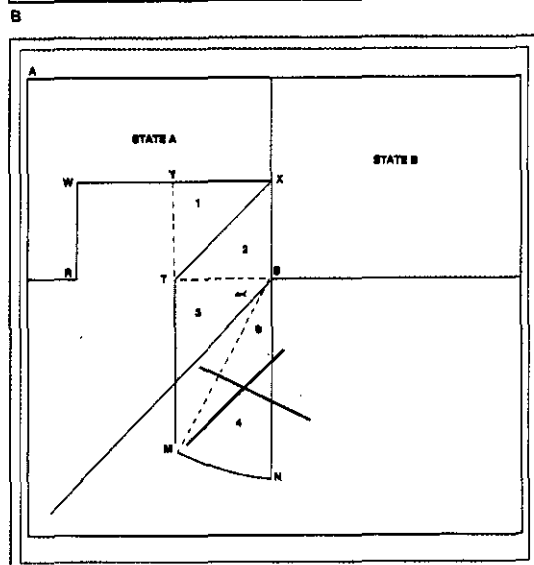
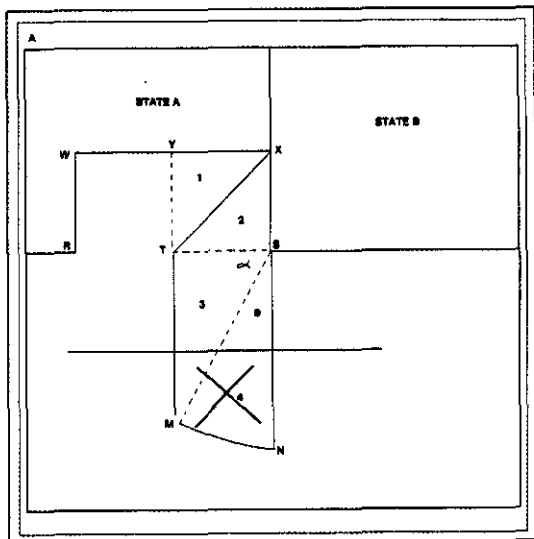
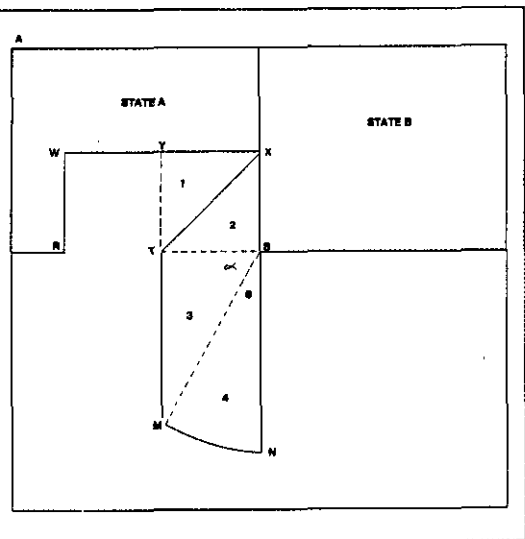


Figure 136  
The Cut-Off  
Effect



**Figure 138**  
**United States**  
**Oral Proceedings,**  
**Figure 12 Corrected**

The corrections to this Figure are made *within* the legal and geographical framework on which the United States cut-off model is based. Because Canada does *not* accept that this constitutes the correct legal and geographical framework for assessing whether an inequitable cut-off occurs, Canada does *not* accept any conclusions of equity or law which might be drawn from this corrected Figure.

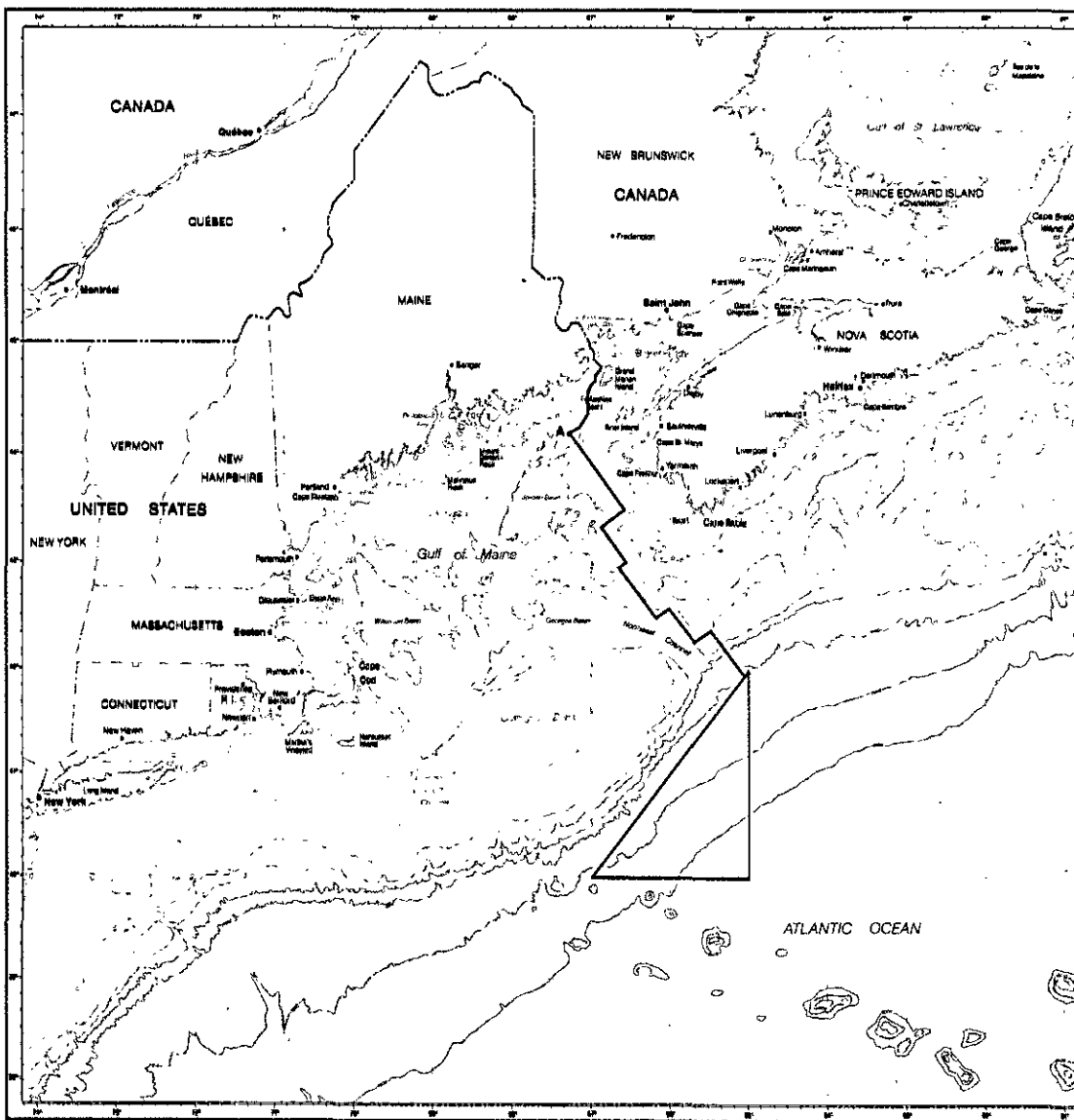
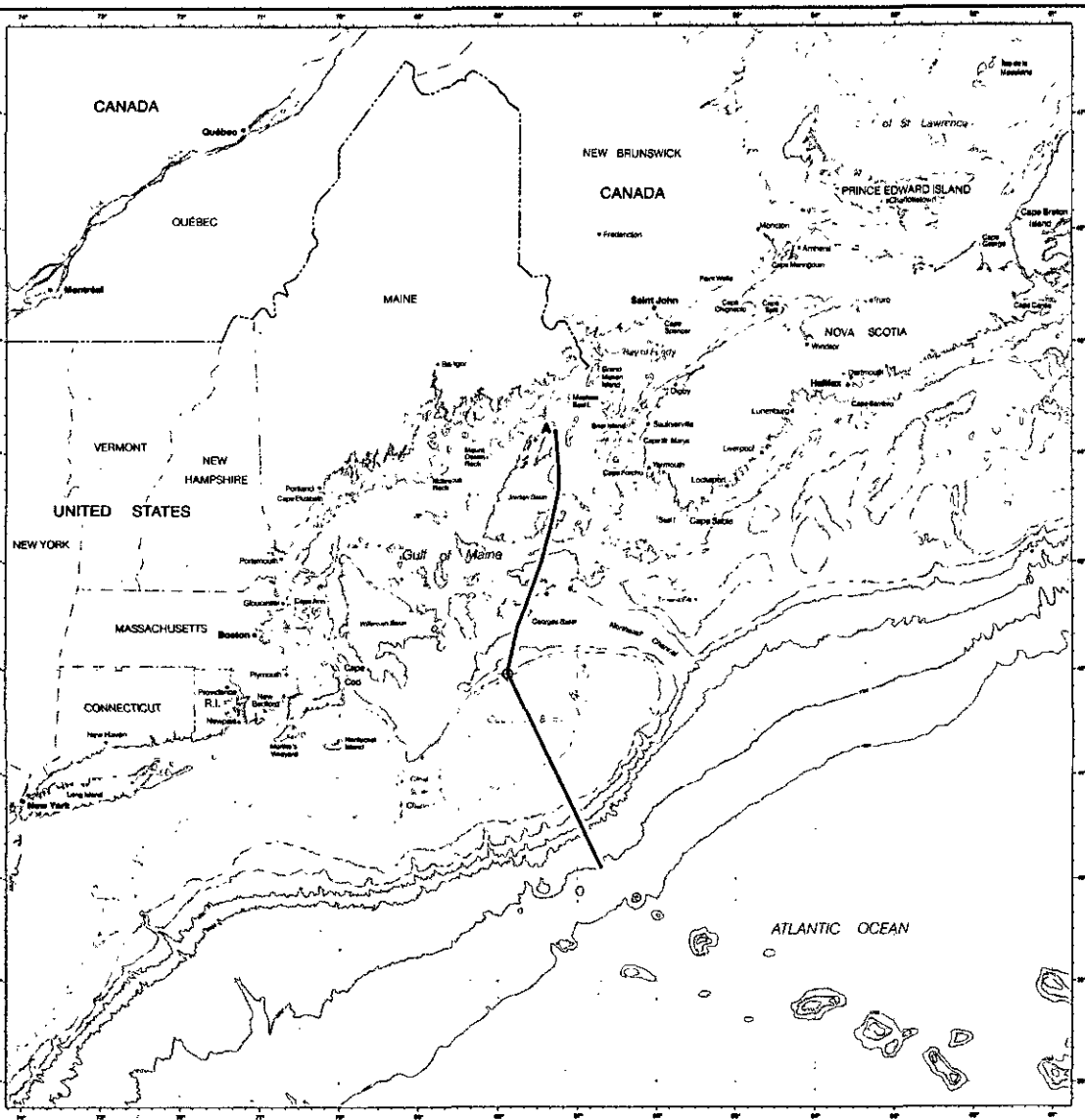


Figure 142

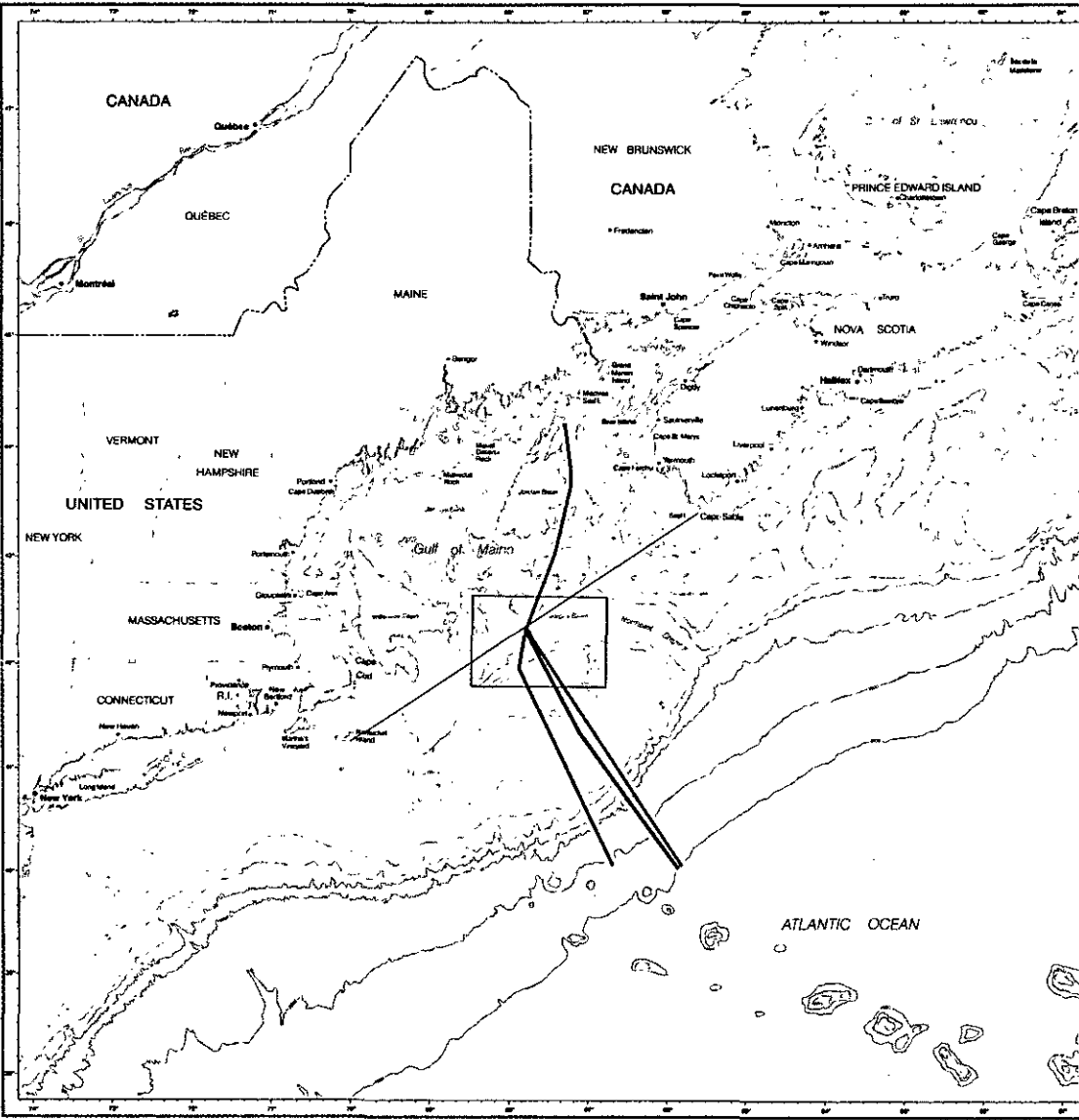
The 1982 United States Boundary Proposal, Point A and the Triangle

Depth in Meters  
 Projection—Mercator  
 Scale—1:4 700 000 at 41°N



**Figure 143**  
**Tripoint (Turning Point 50) of the Canadian Line**

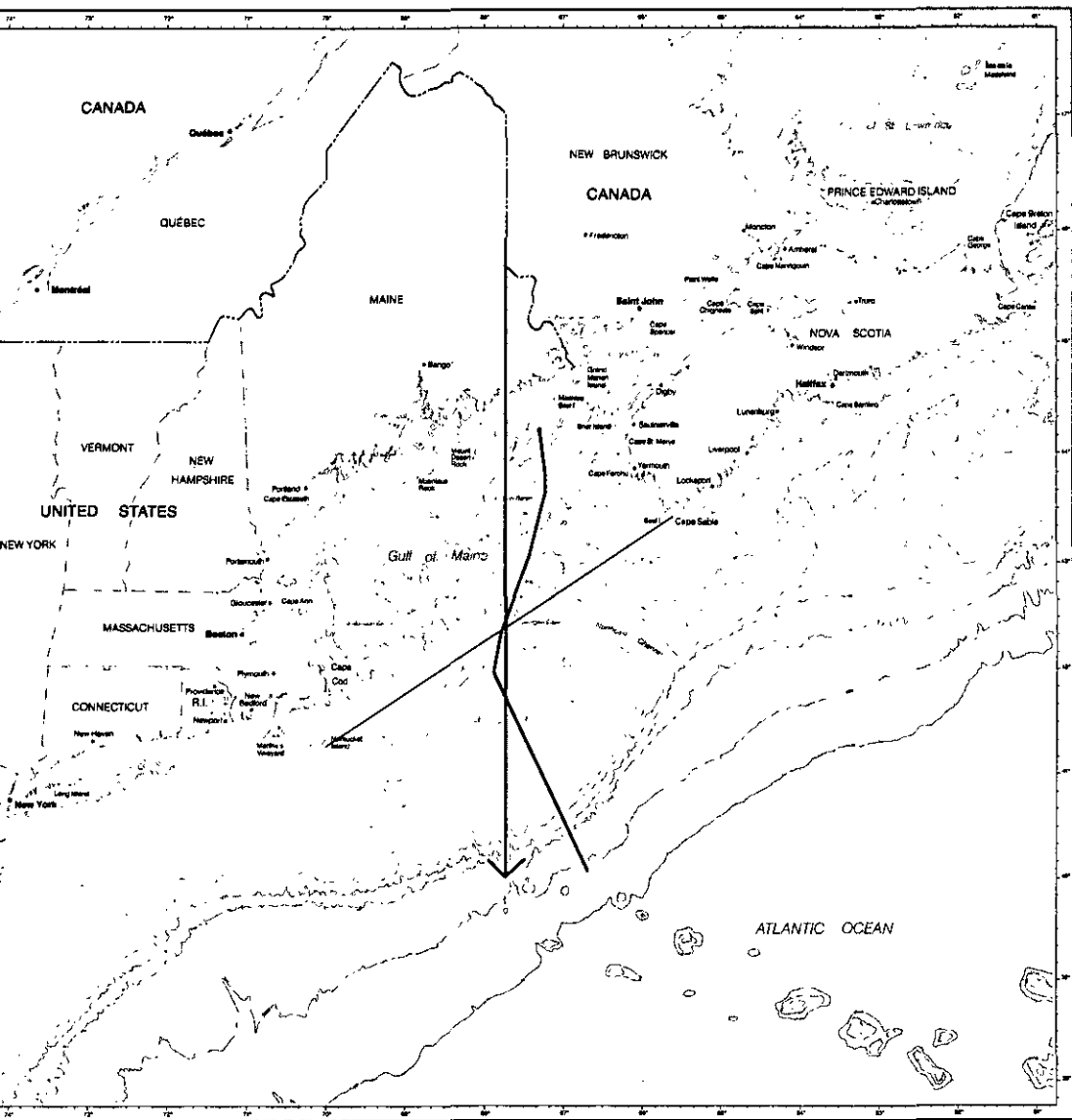
Depths in Metres  
 Projection - Mercator  
 Scale - 1:4 700 000 at 41°N



**Figure 144**  
**The Canadian Line**  
**Compared to a**  
**Perpendicular to**  
**the Hypothetical**  
**Gulf of Maine**  
**Closing Line at its**  
**Midpoint**

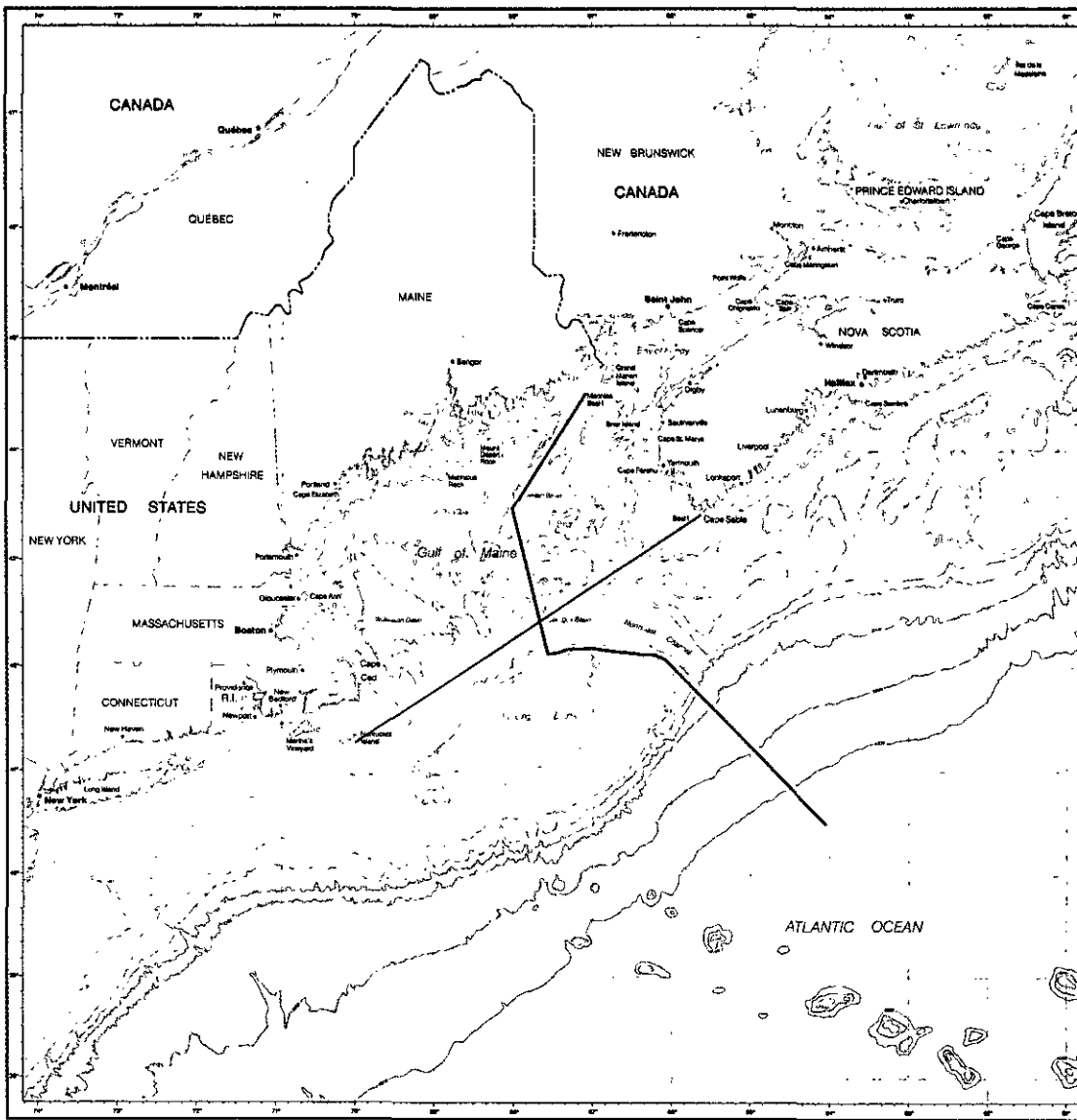
Depths in Metres  
 Projection—Mercator  
 Scale—1:4 700 000 at 41°N





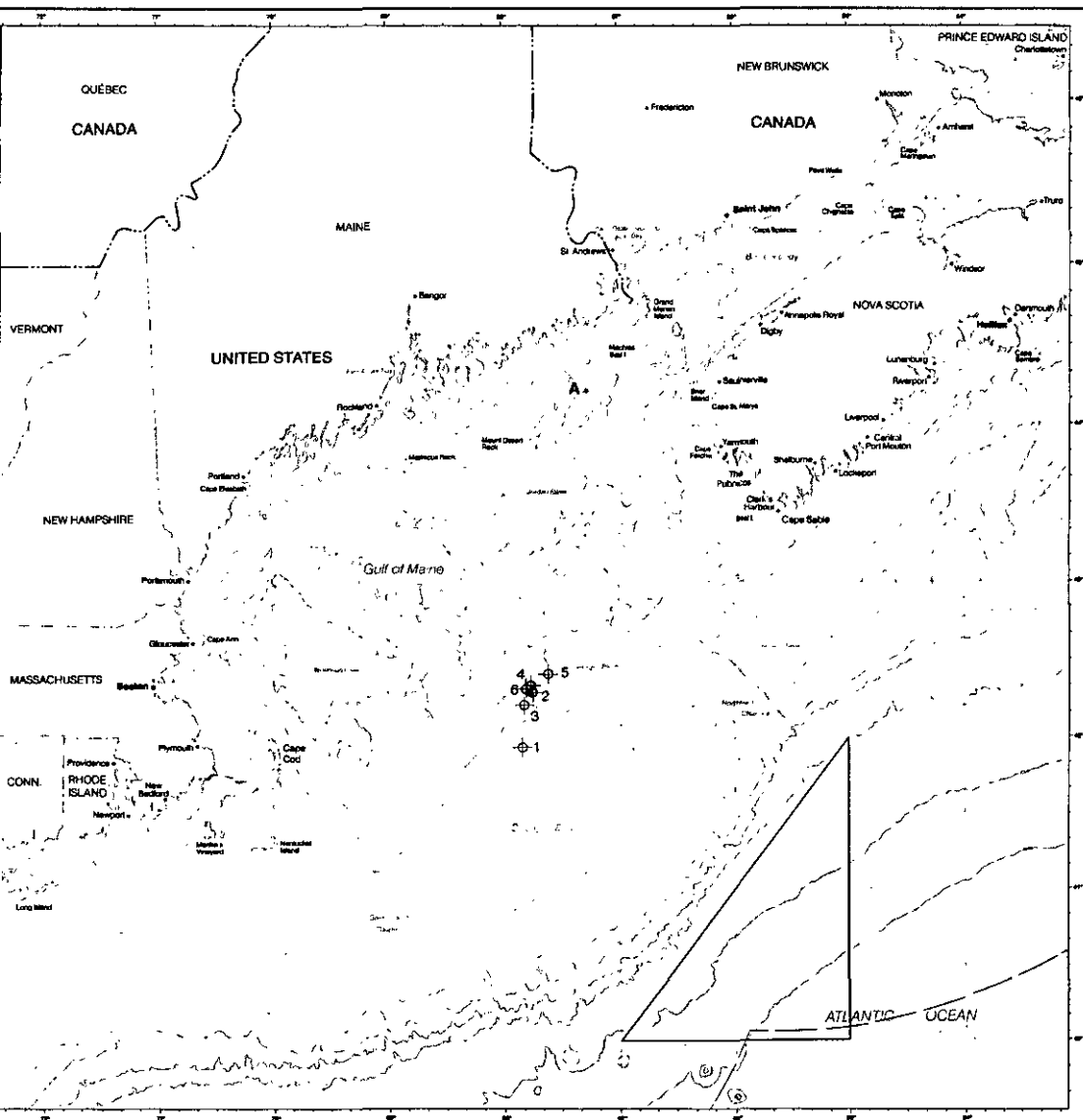
**Figure 148**  
**The Canadian Line,**  
**The Due North Line**  
**and the Hypothetical**  
**Gulf of Maine**  
**Closing Line**

Depth in Metres  
 Projection—Mercator  
 Scale—1:4 700 000 at 41°N



**Figure 149**  
 The United States  
 Law Enforcement  
 Line to Protect the  
 Lobster of the  
 United States  
 Continental Shelf  
 (United States  
 Memorial, Figure 16)  
 and the Hypothetical  
 Gulf of Maine  
 Closing Line

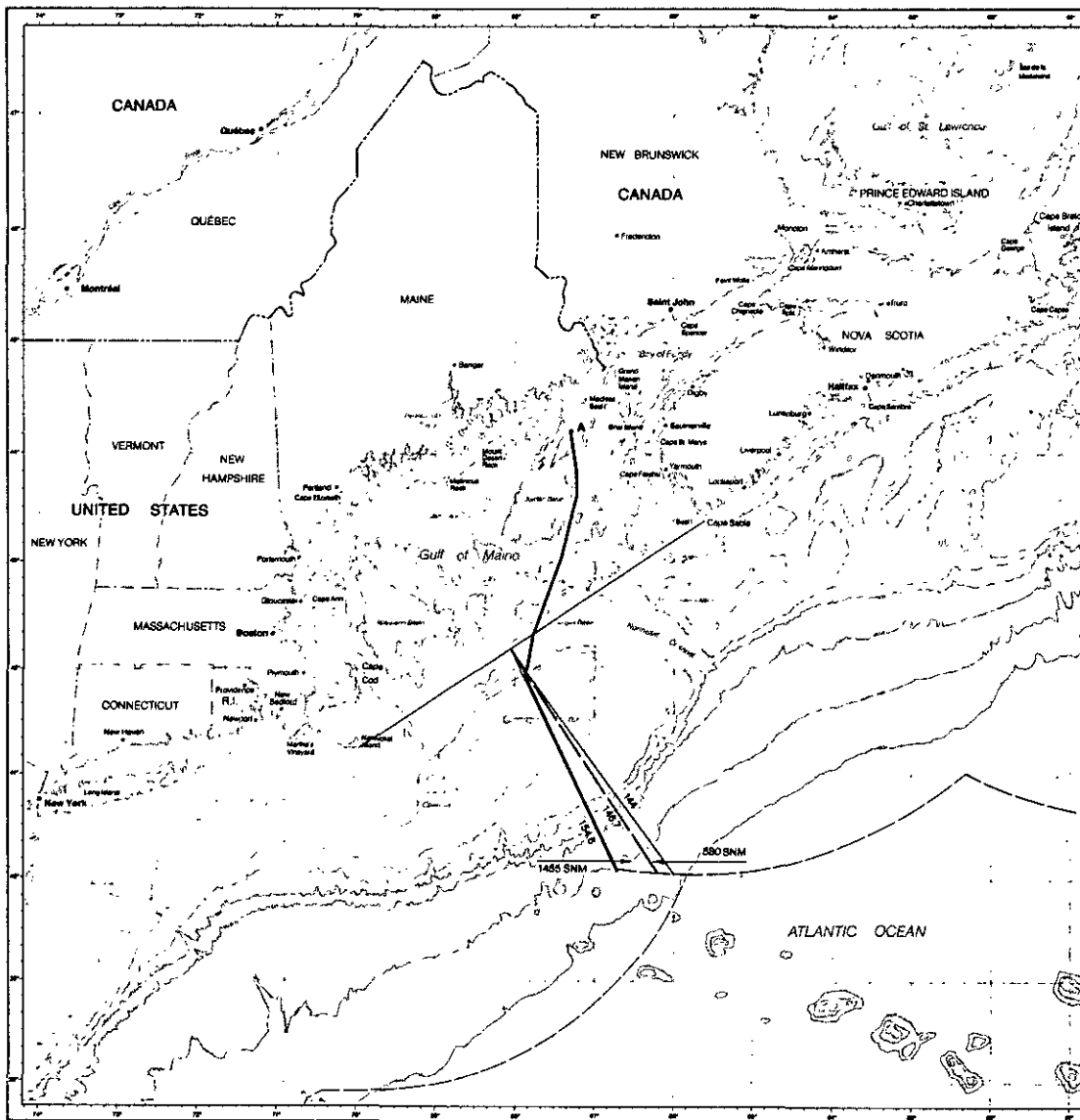
Depth in Metres  
 Projection—Mercator  
 Scale—1:4 700 000 at 41°N



**Figure 150**  
**Points of**  
**Convergence**

- 1: Turning Point 50 (Tripoint) of the Canadian Line
- 2: Turning Point 45 (Tripoint) of the Strict Equidistance Line
- 3: Tripoint of the Equidistance Line drawn from the Coastal Fronts as defined by Canada (*Canadian Counter-Memorial*, Figure 50)
- 4: Point of Intersection of the Due North Line ( $67^{\circ} 47'$  West Longitude) and the Hypothetical Gulf of Maine Closing Line
- 5: Point of Intersection of the United States "Lobster Line" (*United States Memorial*, Figure 16) and the Hypothetical Gulf of Maine Closing Line
- 6: The Midpoint of the Hypothetical Gulf of Maine Closing Line

Depth in Metres  
 Projection—Mercator  
 Scale—1:3 240 000 at  $41^{\circ}$ N







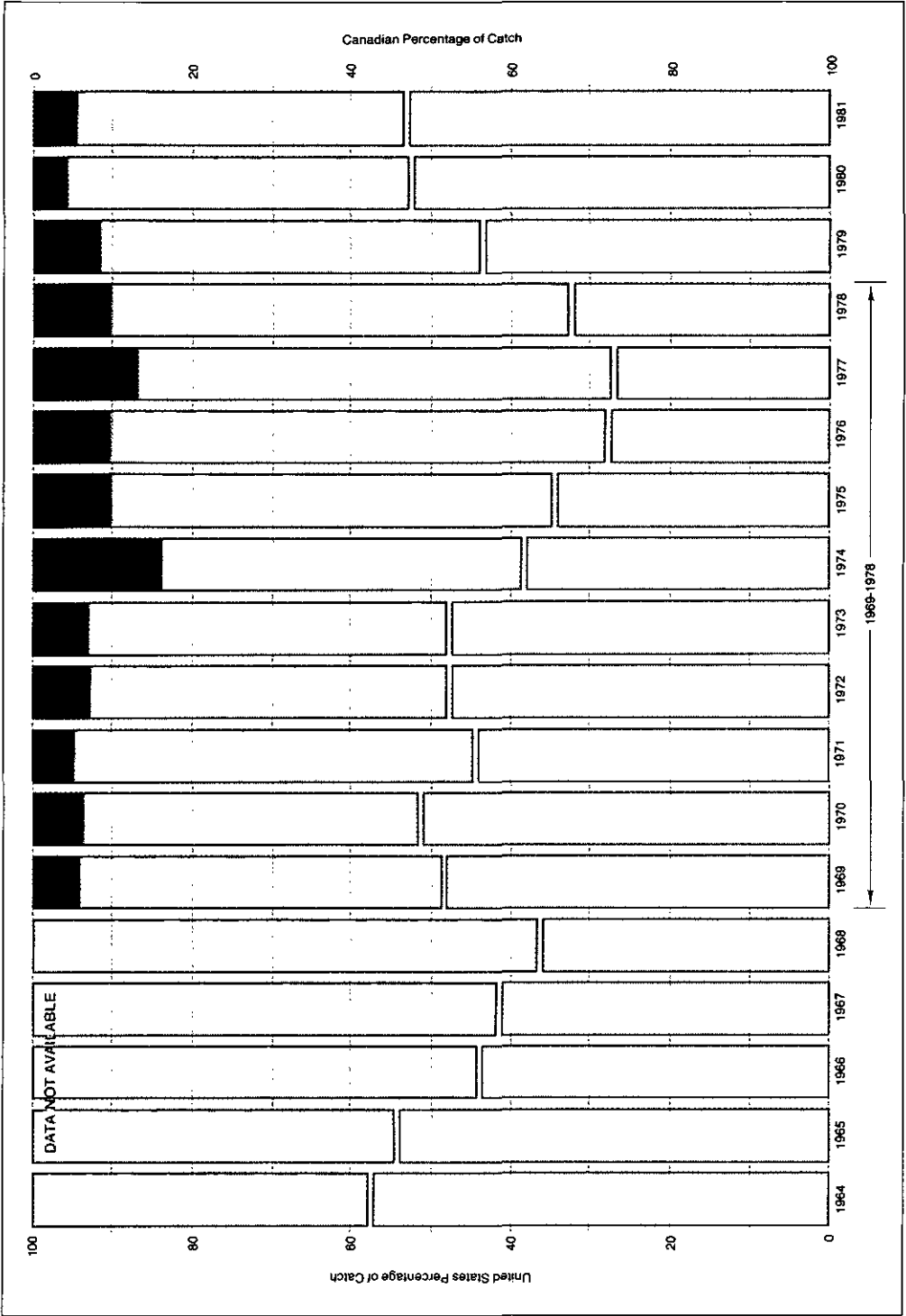
**Figure 151**

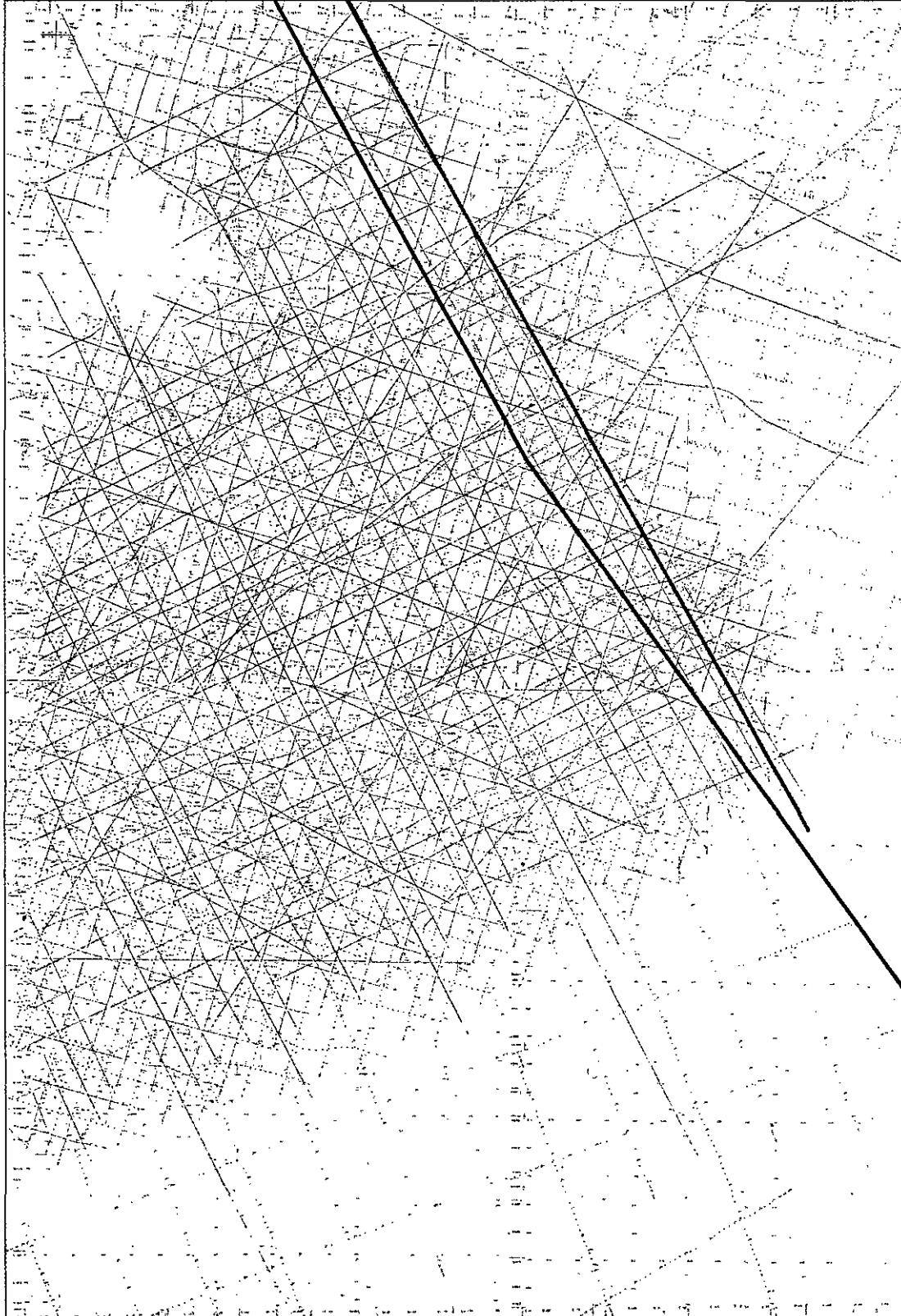
The Implications of the Direction of the Boundary in the Outer Area for the Allocation of Maritime Space

Depths in Metres  
 Projection - Mercator  
 Scale - 1:4 700 000 at 41°N

**Figure 155**  
**The Relevant Fishing Coasts: Georges Bank**

-  Nova Scotia coastal wing ports
  -  Bay of Fundy ports
  -  Maine-New Hampshire ports
  -  Massachusetts-Rhode Island coastal wing ports
- Note: Canadian statistics were not collected by fishery districts prior to 1964. All catches are recorded in round weight.

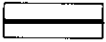




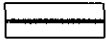
Technical drawing details including a scale bar, a north arrow, and various alphanumeric labels and annotations.

**Figure 160**

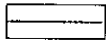
**Composite Map  
Depicting Seismic  
Lines Shot Under  
Digicon Group  
Surveys: 1969-1975**



BLM line



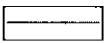
Company equidistance line



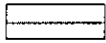
400 lines shot pursuant to  
United States permits E2-69  
and E1-70



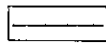
500 lines shot pursuant to  
extension of United States  
permit E1-70



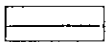
600 lines shot pursuant to  
United States permit E1-71



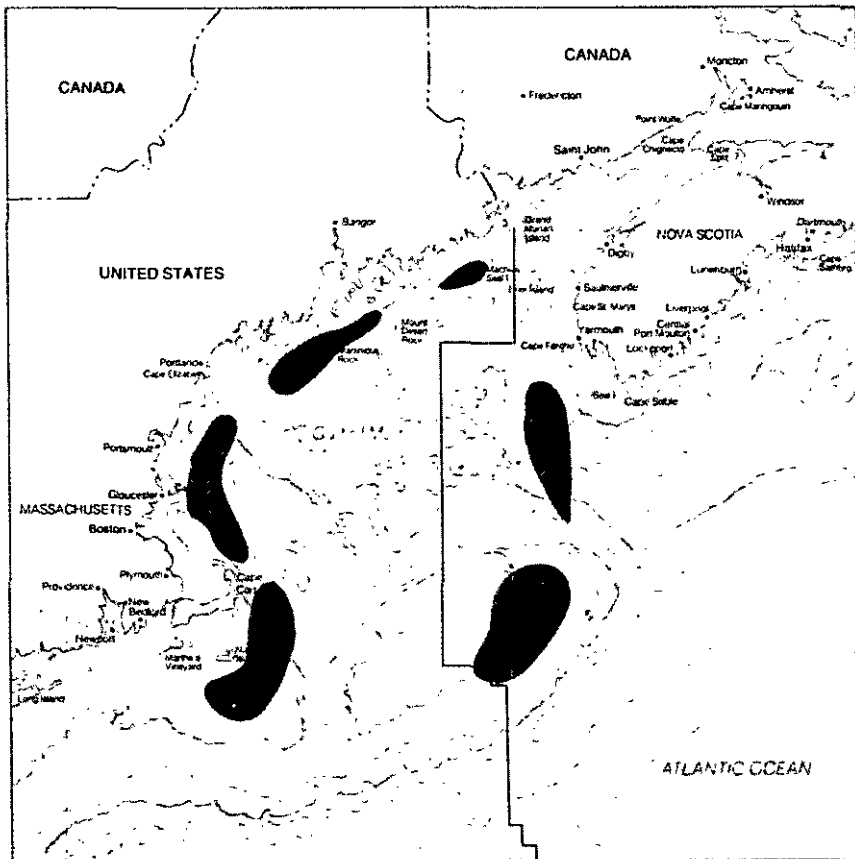
700 and 700XU lines shot  
pursuant to United States  
permit E2-72



D900 lines shot pursuant to  
United States permit E1-74



D100 lines shot pursuant to  
United States permit E3-75



**Figure 166**

**The Statistical Unit Line and Concentrations of Cod, Haddock and Scallops on Georges Bank**

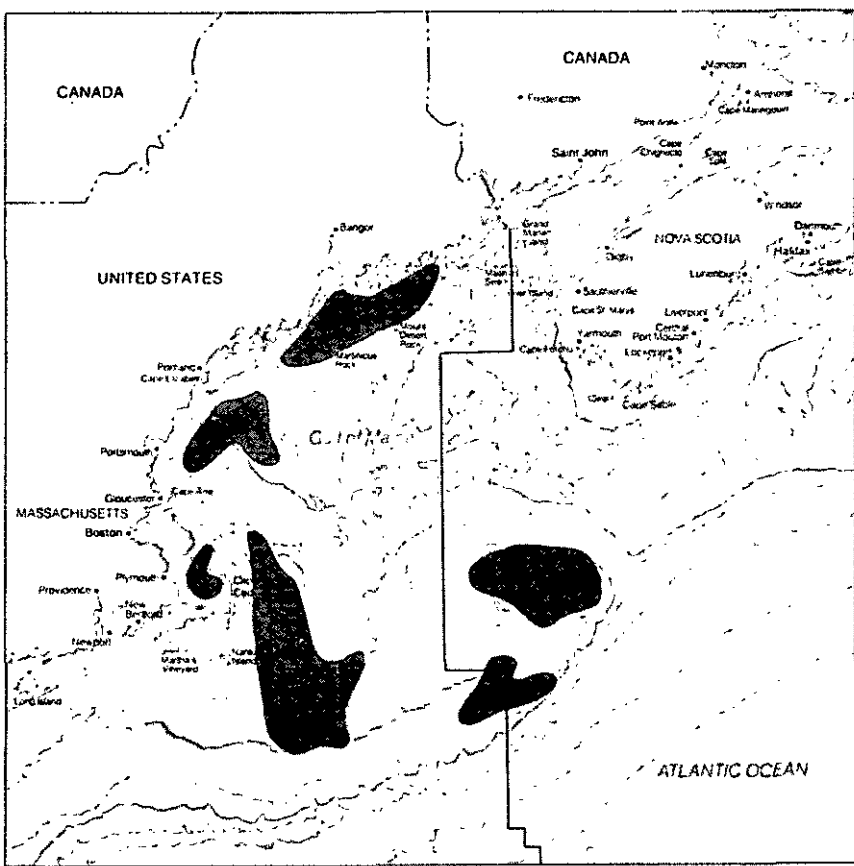
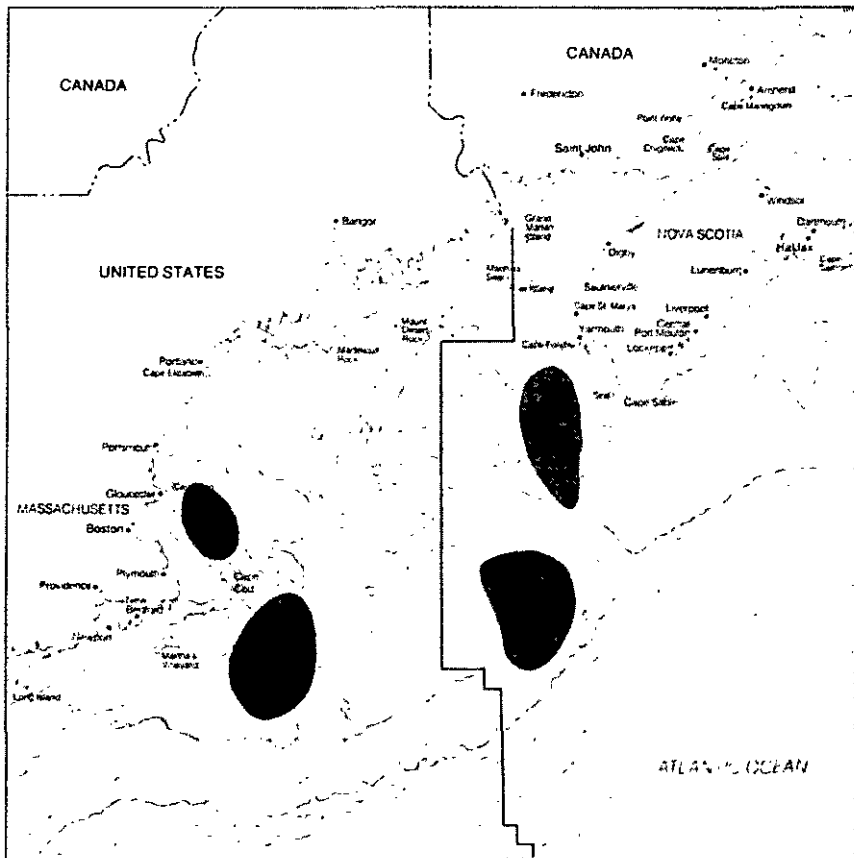
Depths in Metres  
Projection—Mercator  
Scale—1:7 300 000 at 41°N

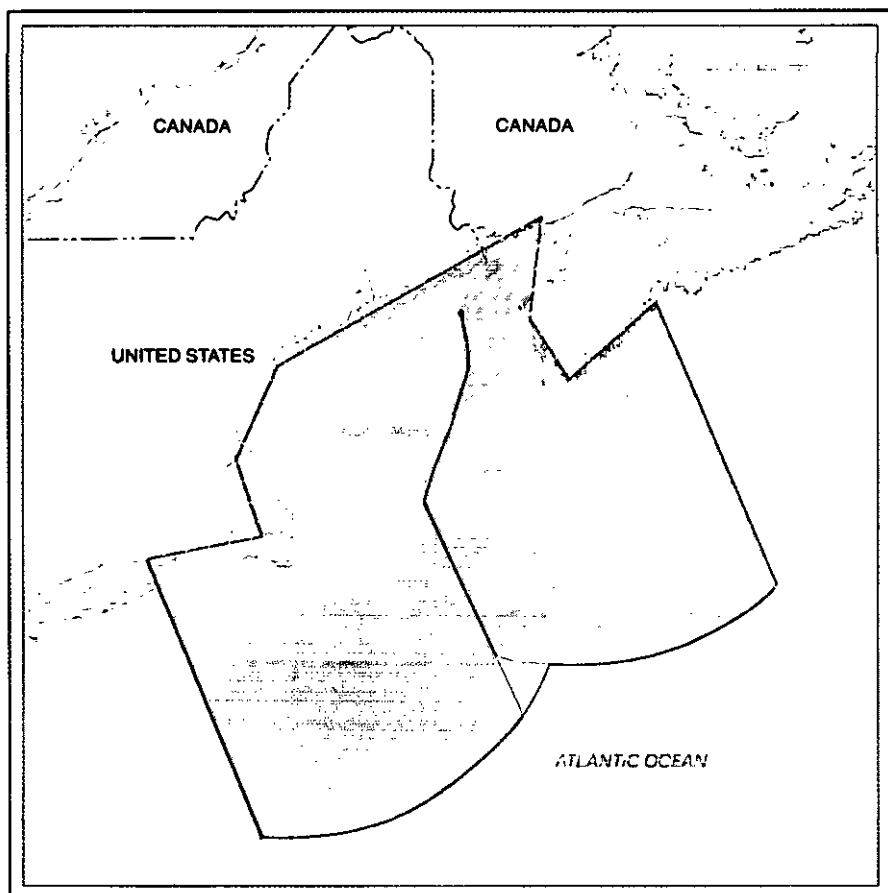
**A**  
Spawning concentrations of cod  
Source: *United States Oral Proceedings*, Figure 77

**B**  
Spawning concentrations of haddock  
Source: *United States Oral Proceedings*, Figure 77

**C**  
Concentrations of scallops  
Source: *New England and South Atlantic Fishery Management Councils Final Environmental Impact Statement for Fishery Management Plan for Scallops*, January 1982





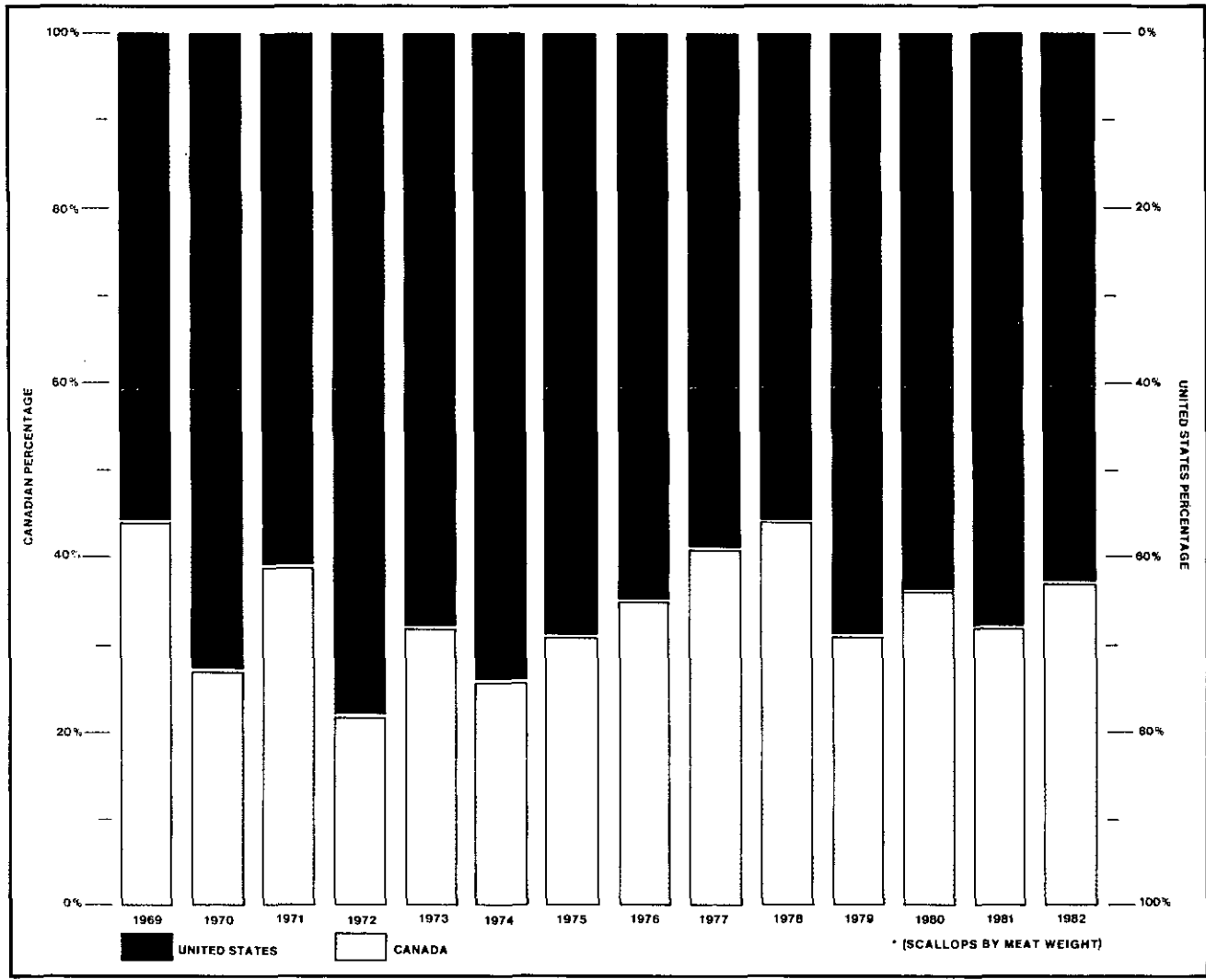


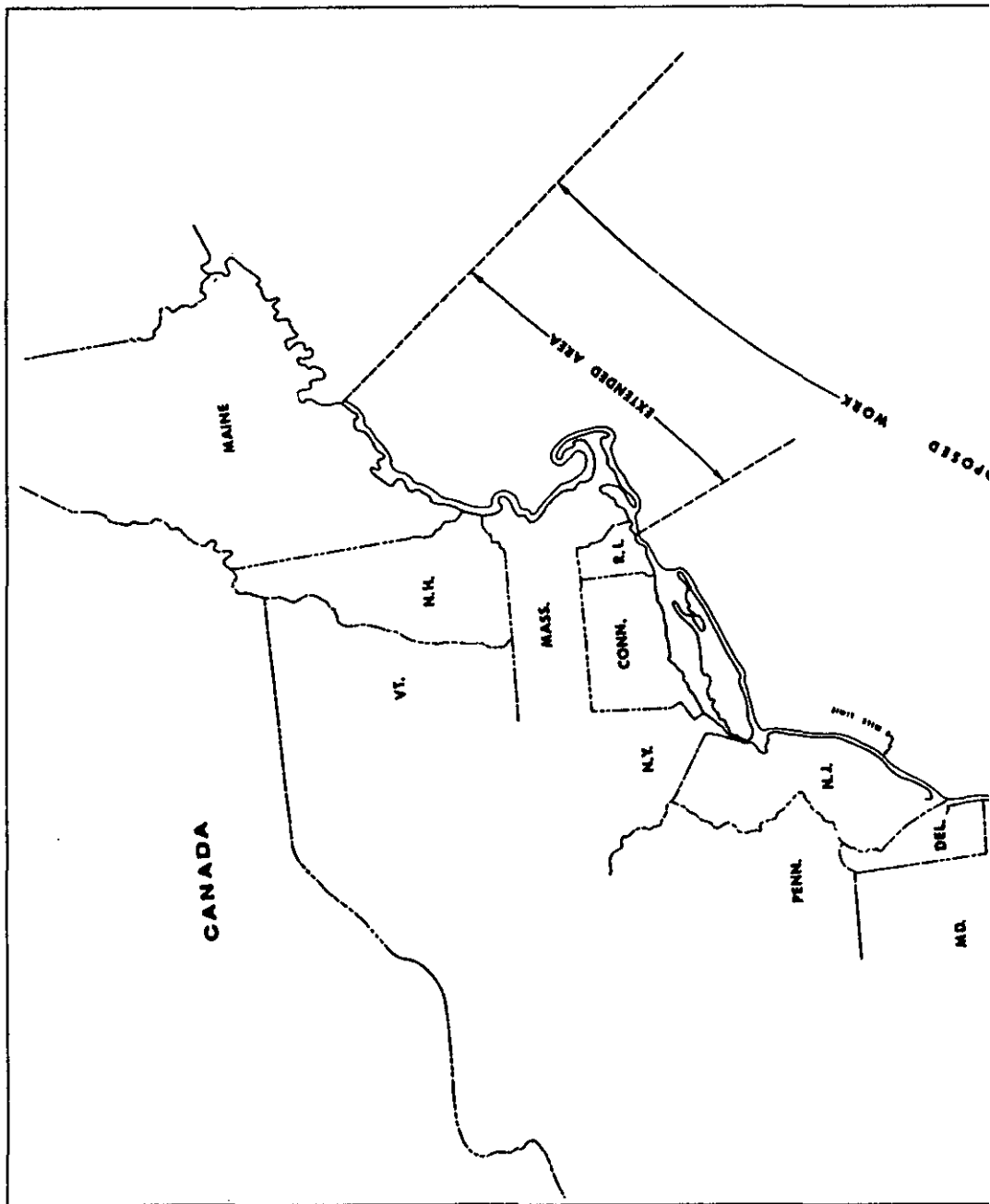
**Figure 171**

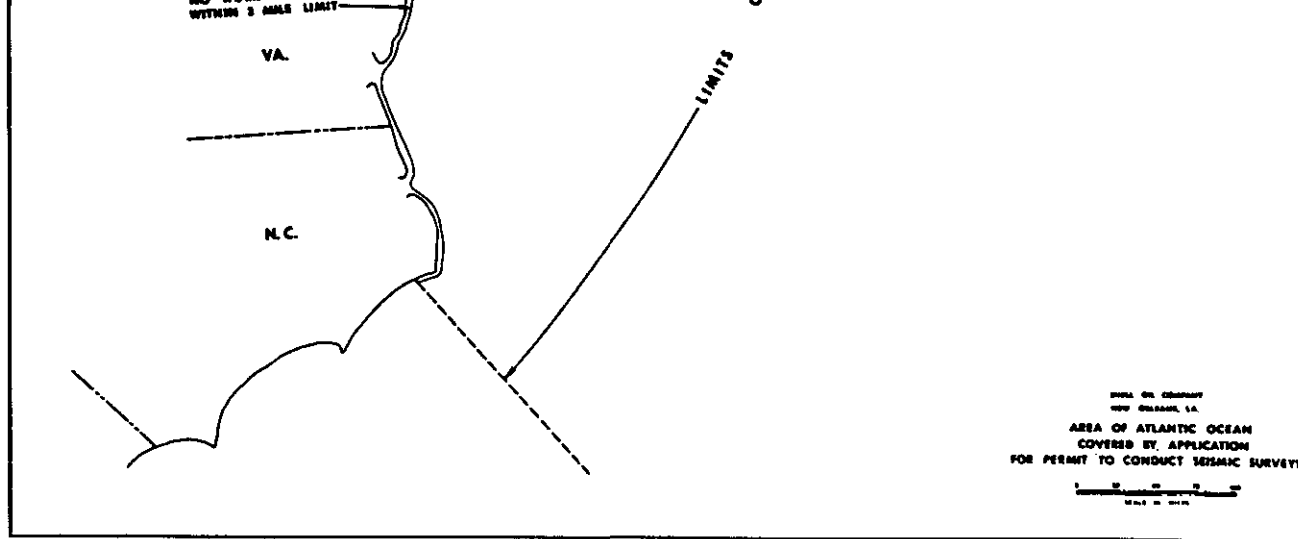
**Canadian Proportionality Model A Including Only the Bay of Fundy Coast That “Faces” the “Area in Which the Delimitation is to Take Place”**

Coastal lengths:	
Canada	250½ NM
United States	369 NM
Ratio	40:60

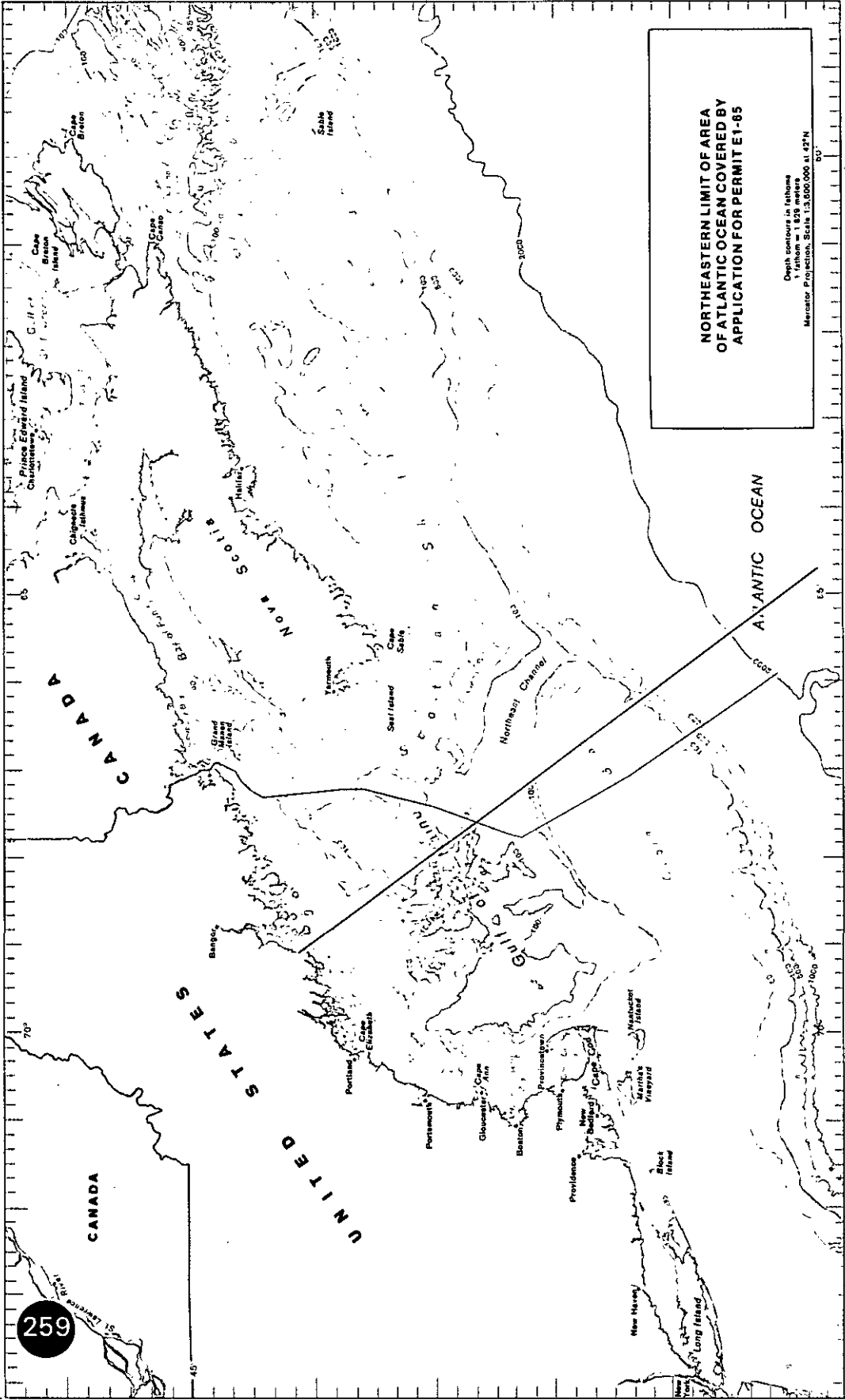
Sea areas divided by the Canadian Line:	
Canada	45035 SNM
United States	63657 SNM
Ratio	41:59





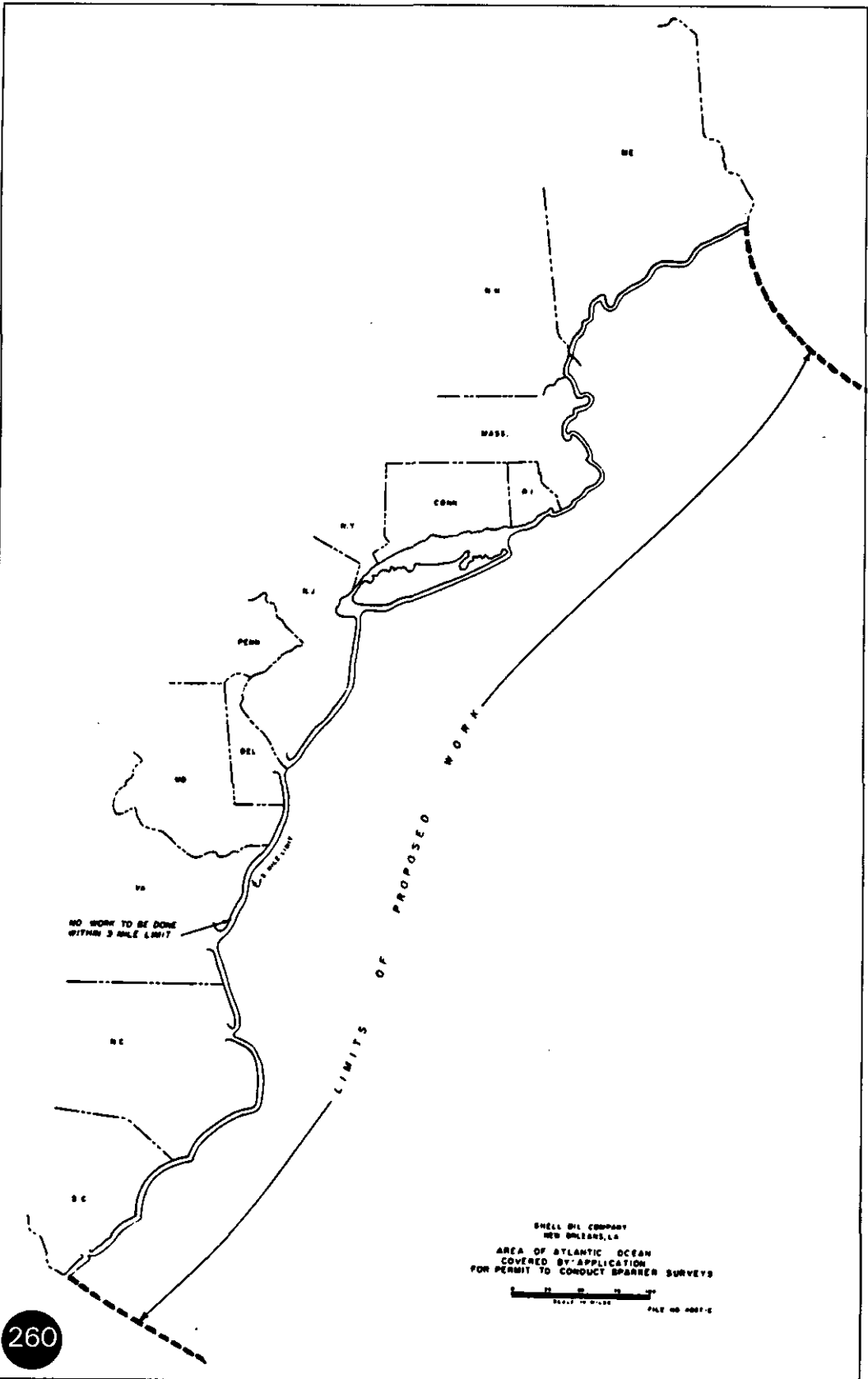


**AREA OF ATLANTIC OCEAN COVERED BY APPLICATION FOR PERMIT E 1-65  
(Reproduced from Application)**



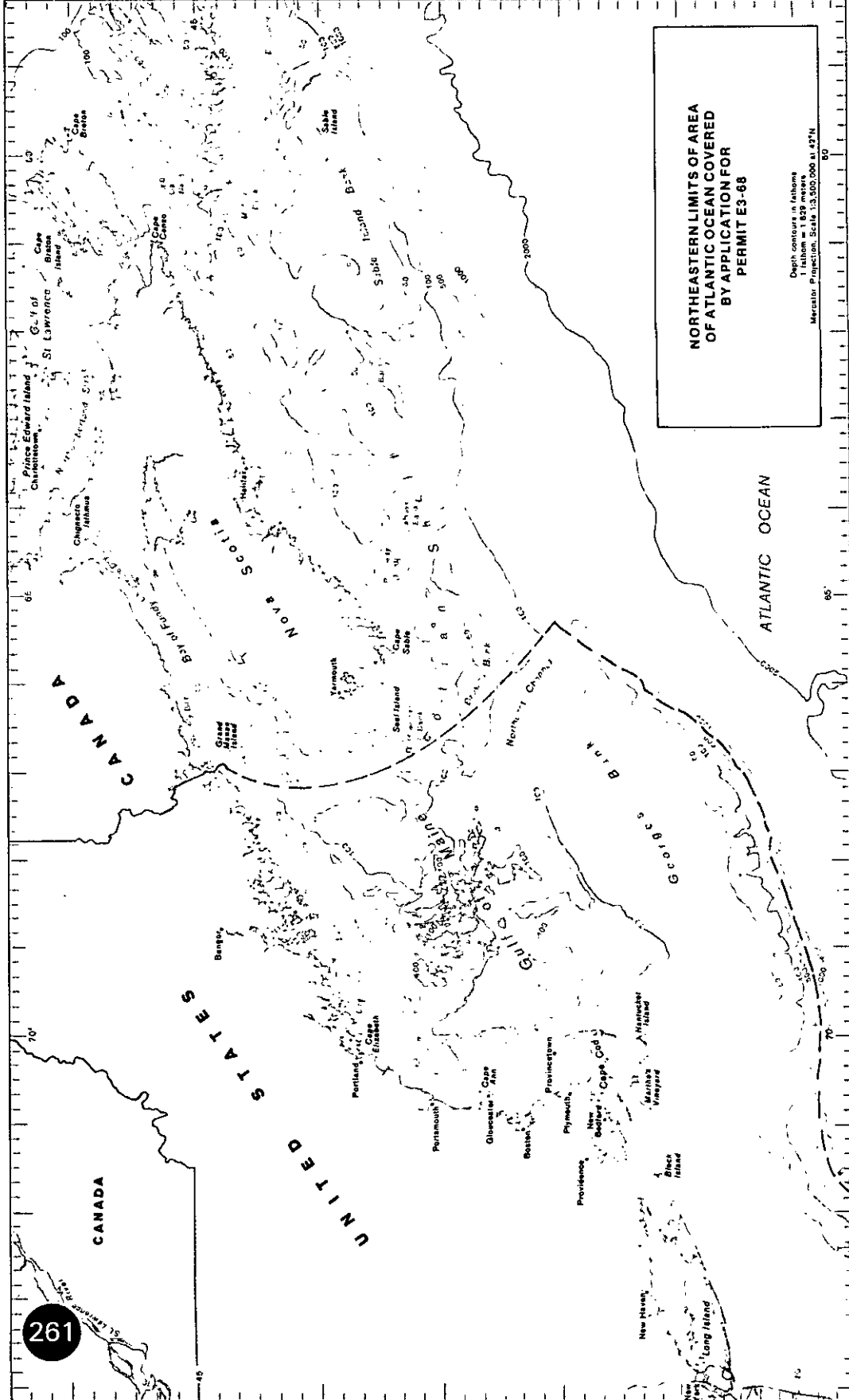
**NORTHEASTERN LIMIT OF AREA  
OF ATLANTIC OCEAN COVERED BY  
APPLICATION FOR PERMIT E1-85**

Depth contours in fathoms  
1 fathom = 1.829 meters  
Mercator Projection, Scale 1:500,000 at 45°N  
20°



260

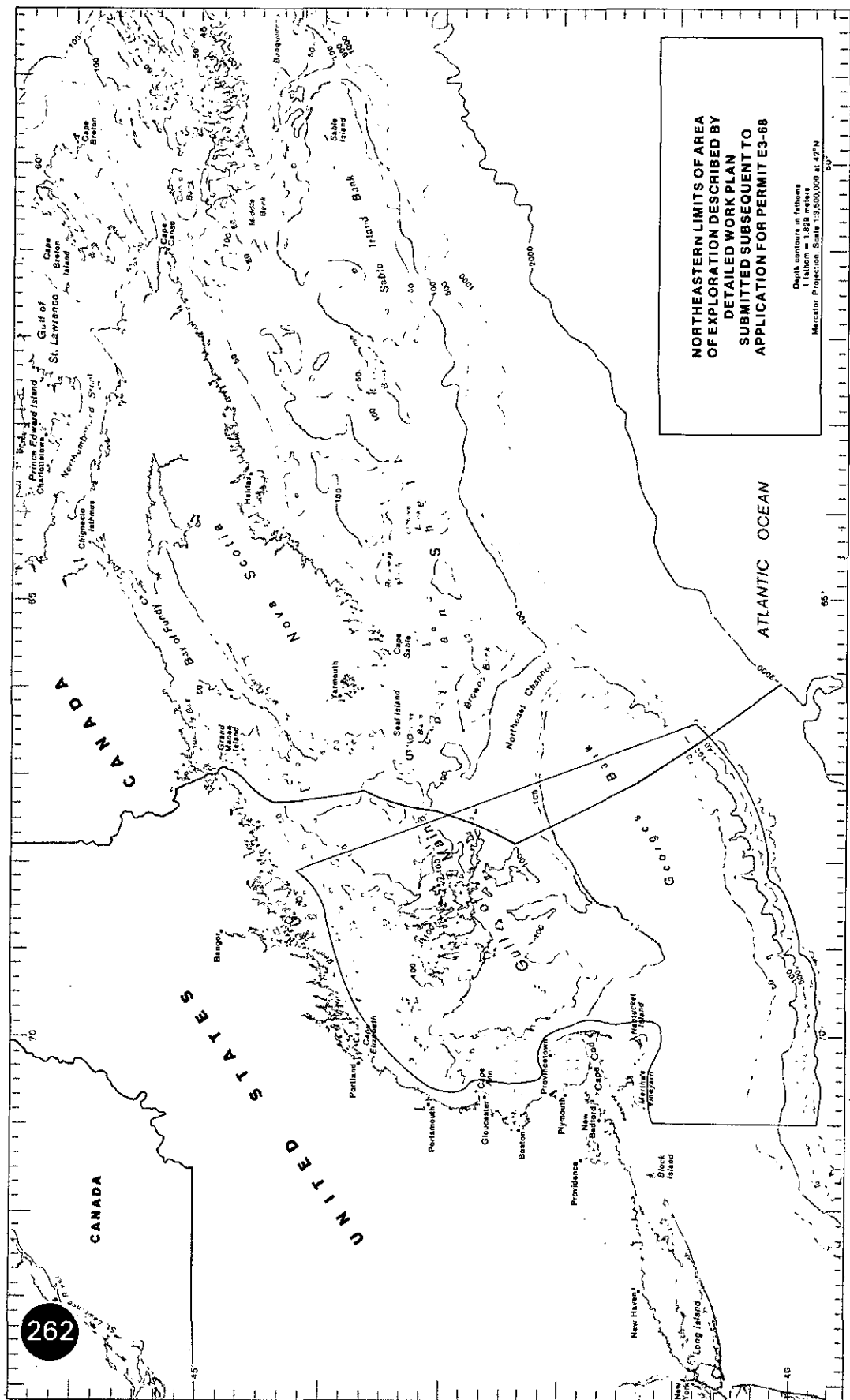
**AREA OF ATLANTIC OCEAN COVERED BY APPLICATION FOR PERMIT E 3-68  
(Reproduced from Application)**



**NORTHEASTERN LIMITS OF AREA OF ATLANTIC OCEAN COVERED BY APPLICATION FOR PERMIT E3-68**

Depth contours in fathoms  
1 fathom = 1.83 meters  
Mercator Projection, Scale 1:5,500,000 at 42°N





**NORTHEASTERN LIMITS OF AREA OF EXPLORATION DESCRIBED BY DETAILED WORK PLAN SUBMITTED SUBSEQUENT TO APPLICATION FOR PERMIT E3-68**

Depth contours in fathoms  
 1 fathom = 1.829 meters  
 Mercator Projection, Scale 1:3,500,000 at 42°N

ATLANTIC OCEAN

CANADA

UNITED STATES

263

CANADA

UNITED STATES

CANADA

NOVA SCOTIA

Prince Edward Island  
Charlottetown

Cape Breton  
Island

Cape Breton

Cape Canso

Chignecto Isthmus

Halifax

Banger

Grand Manan Island

Yarmouth

Sable Island

Portland

Cape Elizabeth

Sent Island

Cape Sable

Portsmouth

Gloucester

Cape Ann

Boston

Provincetown

Providence

Plymouth

New Bedford

Cape Cod

New Haven

Martha's Vineyard

Nantucket Island

Block Island

Long Island

Gulf of Maine

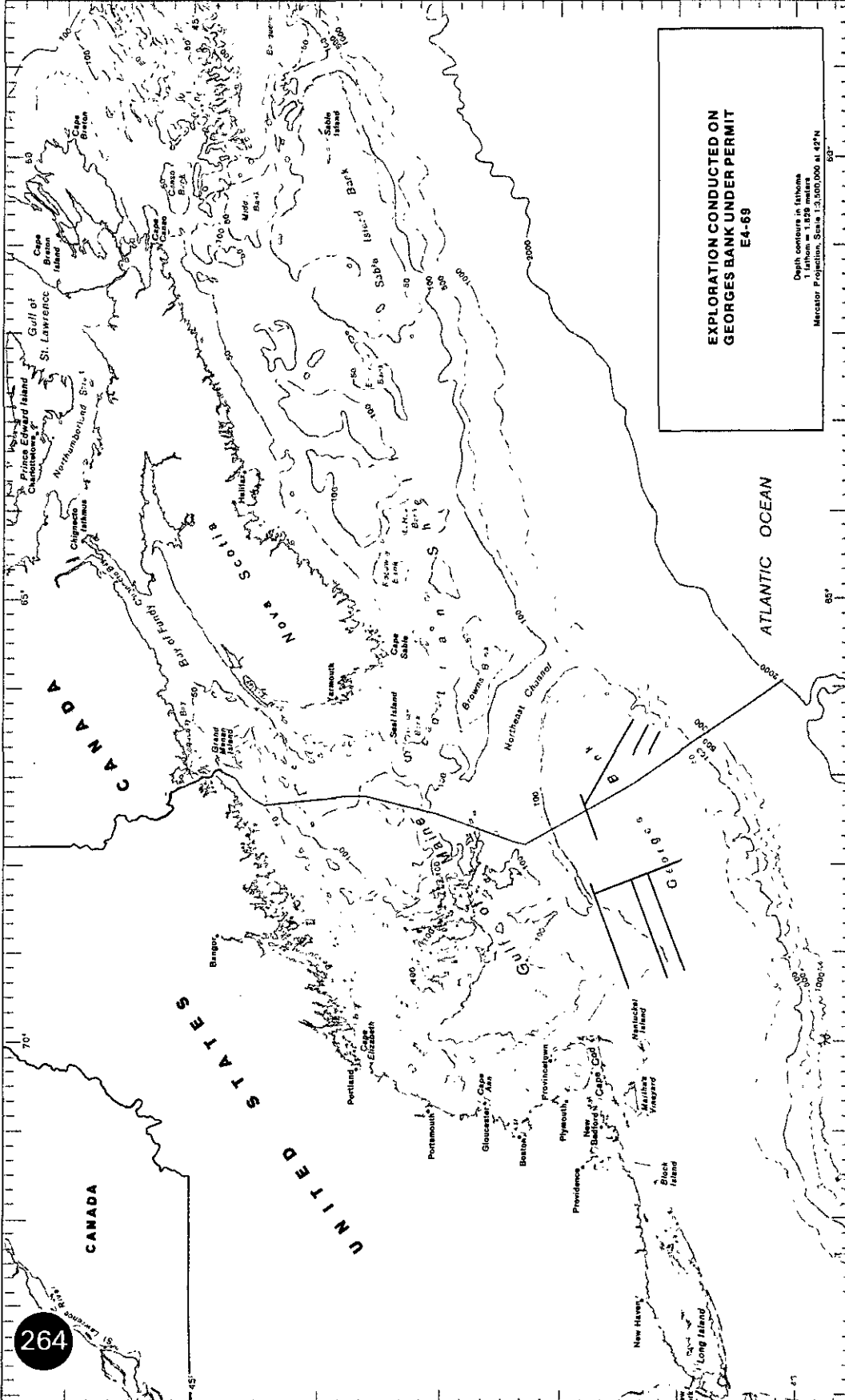
PT. ON BLM LINE

PT. ON BLM LINE

ATLANTIC OCEAN

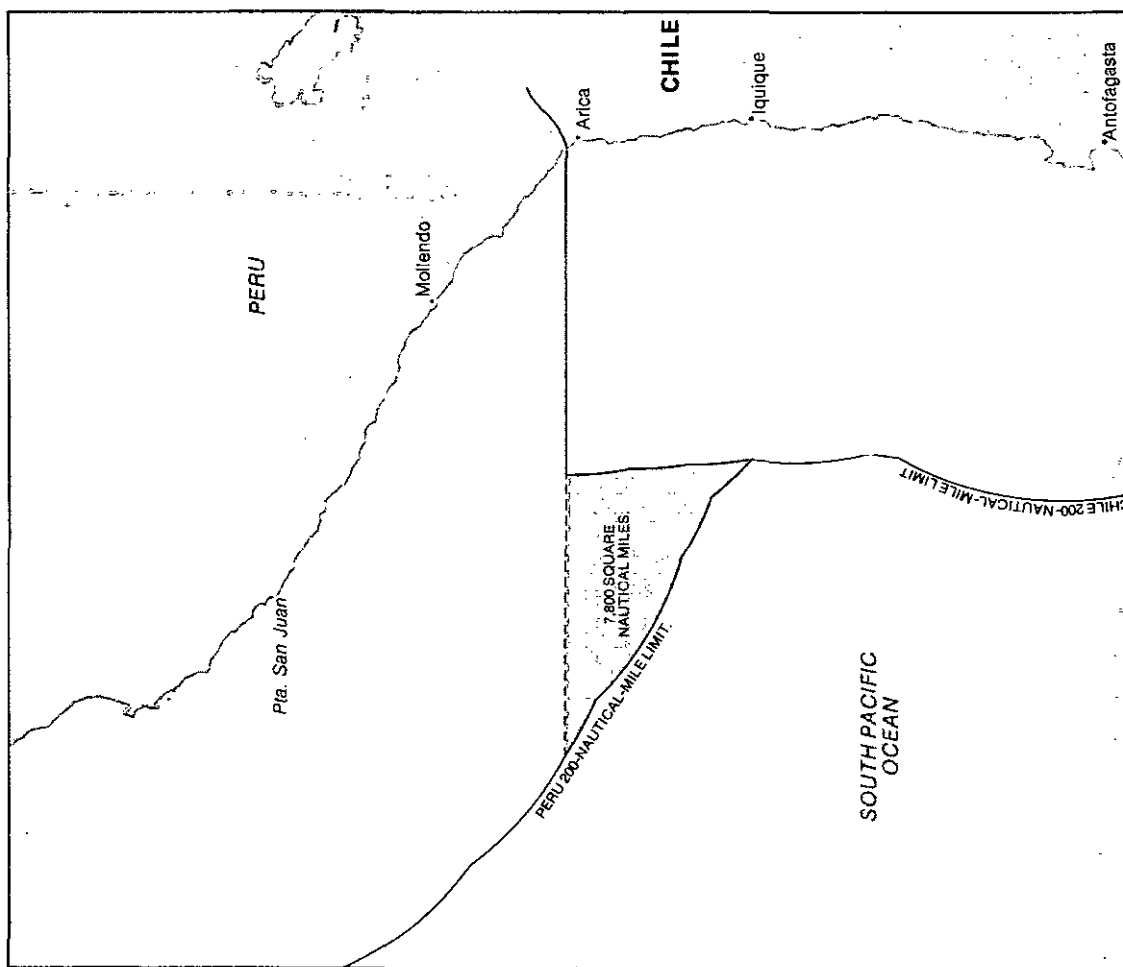
**EXPLORATION PROPOSED  
UNDER PERMIT E3-89  
ON GEORGES BANK**

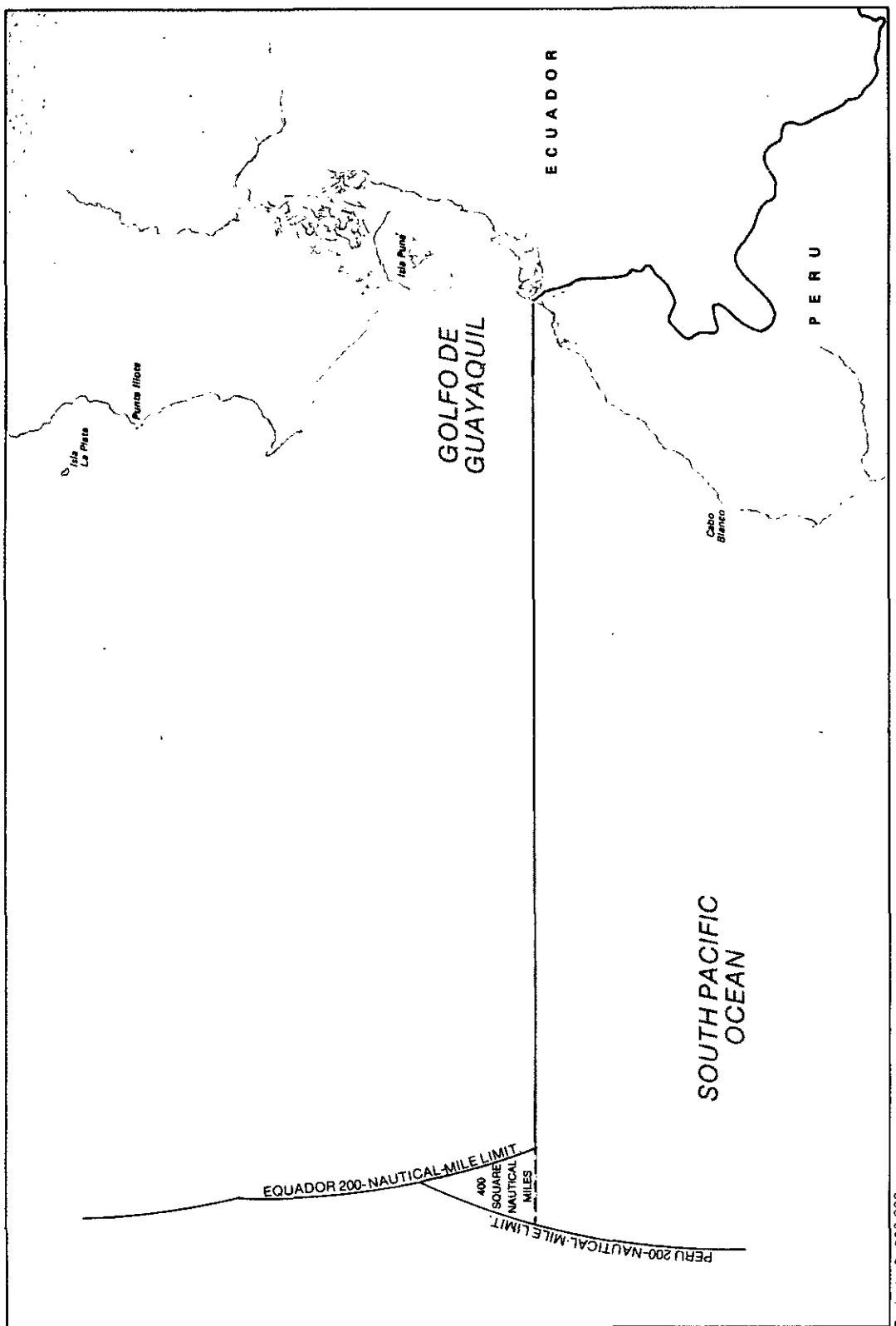
Depth contours in fathoms  
1 fathom = 1 829 meters  
Mercator Projection, Scale 1:3,500,000 at 45°N

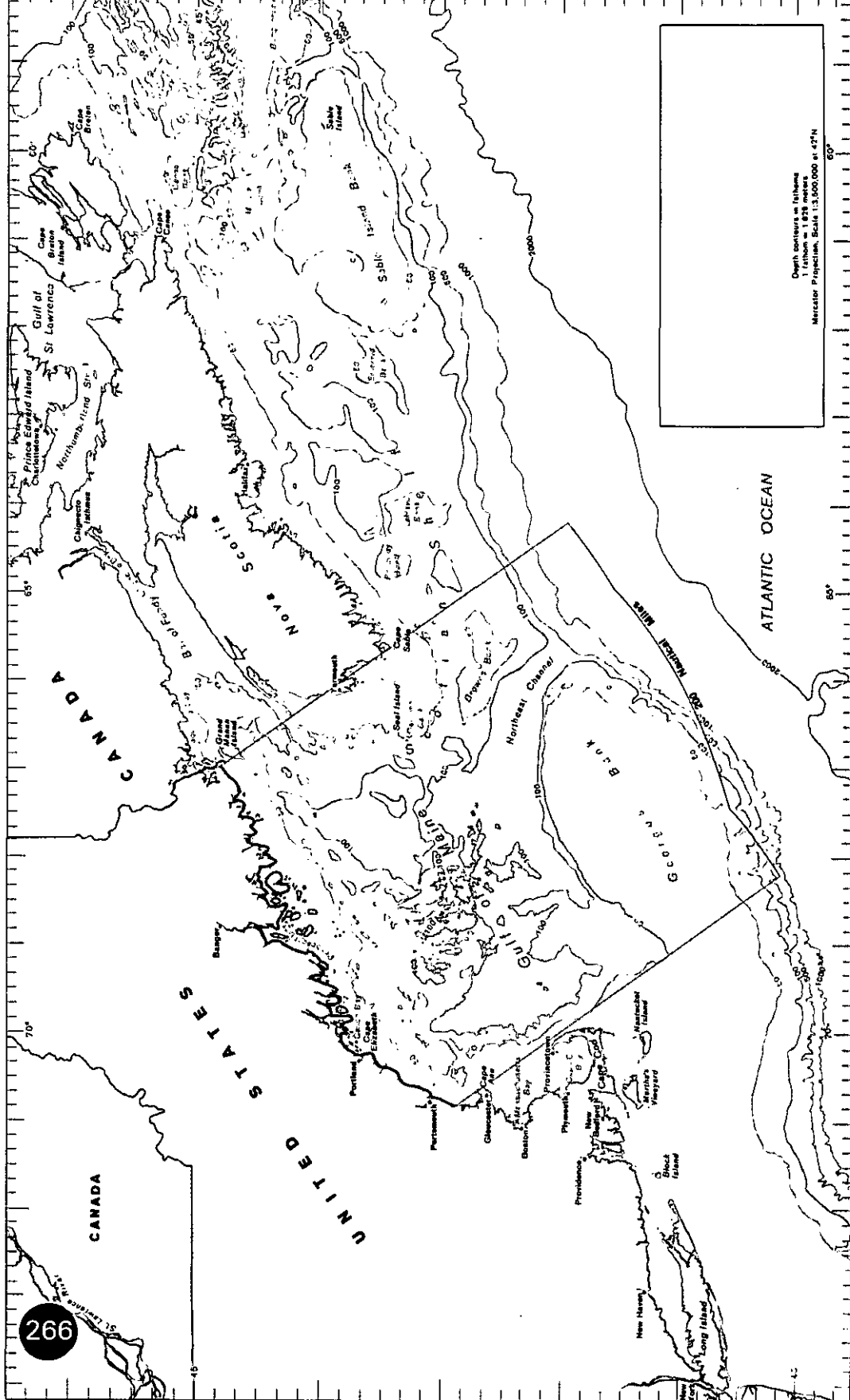


**EXPLORATION CONDUCTED ON  
GEORGES BANK UNDER PERMIT  
E4-69**

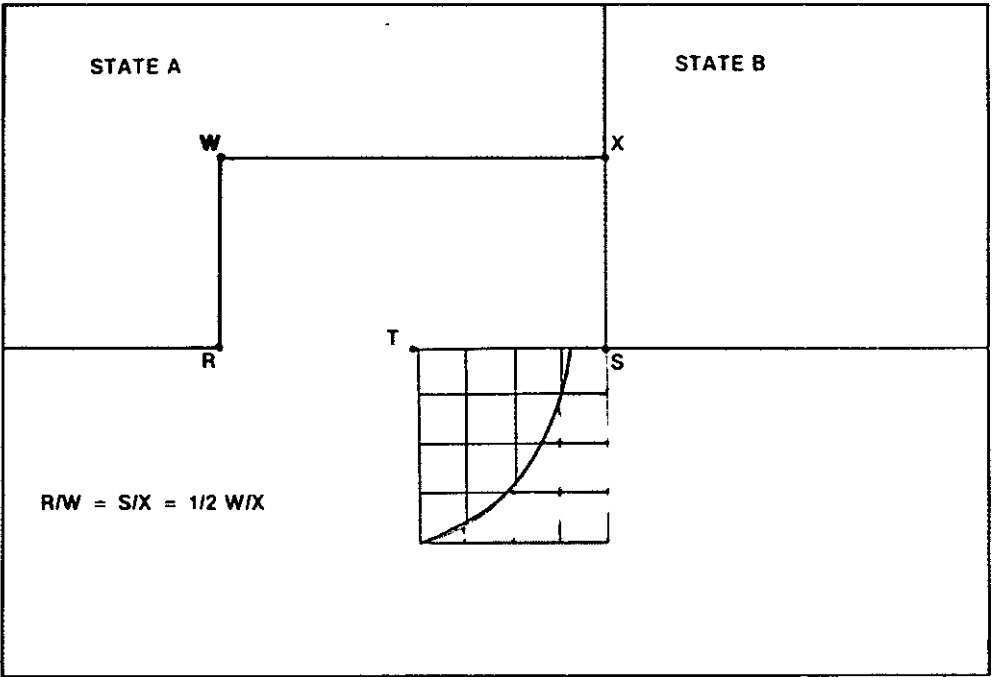
Depth contours in fathoms  
1 fathom = 1.829 meters  
Mercator Projection, Scale 1:500,000 at 49°N



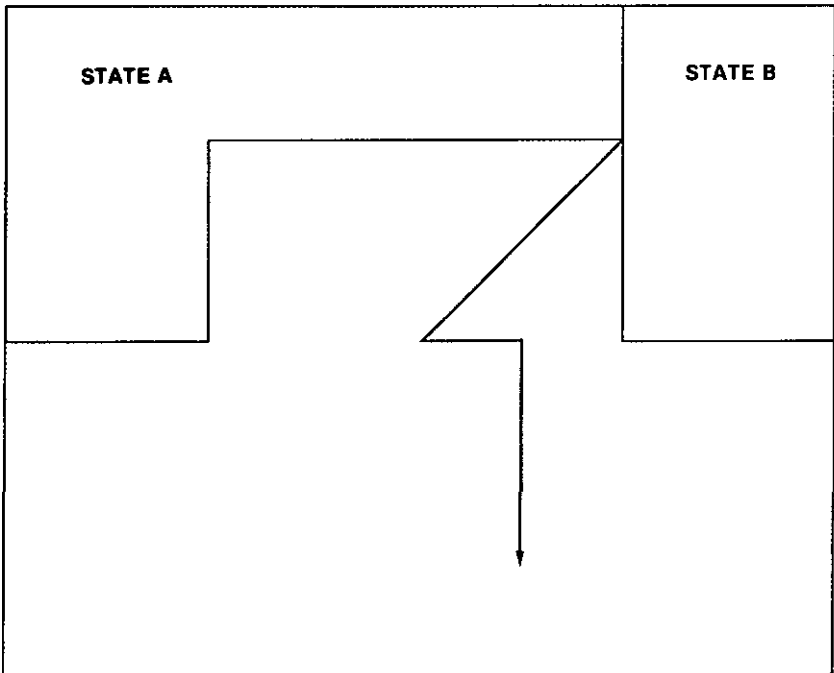




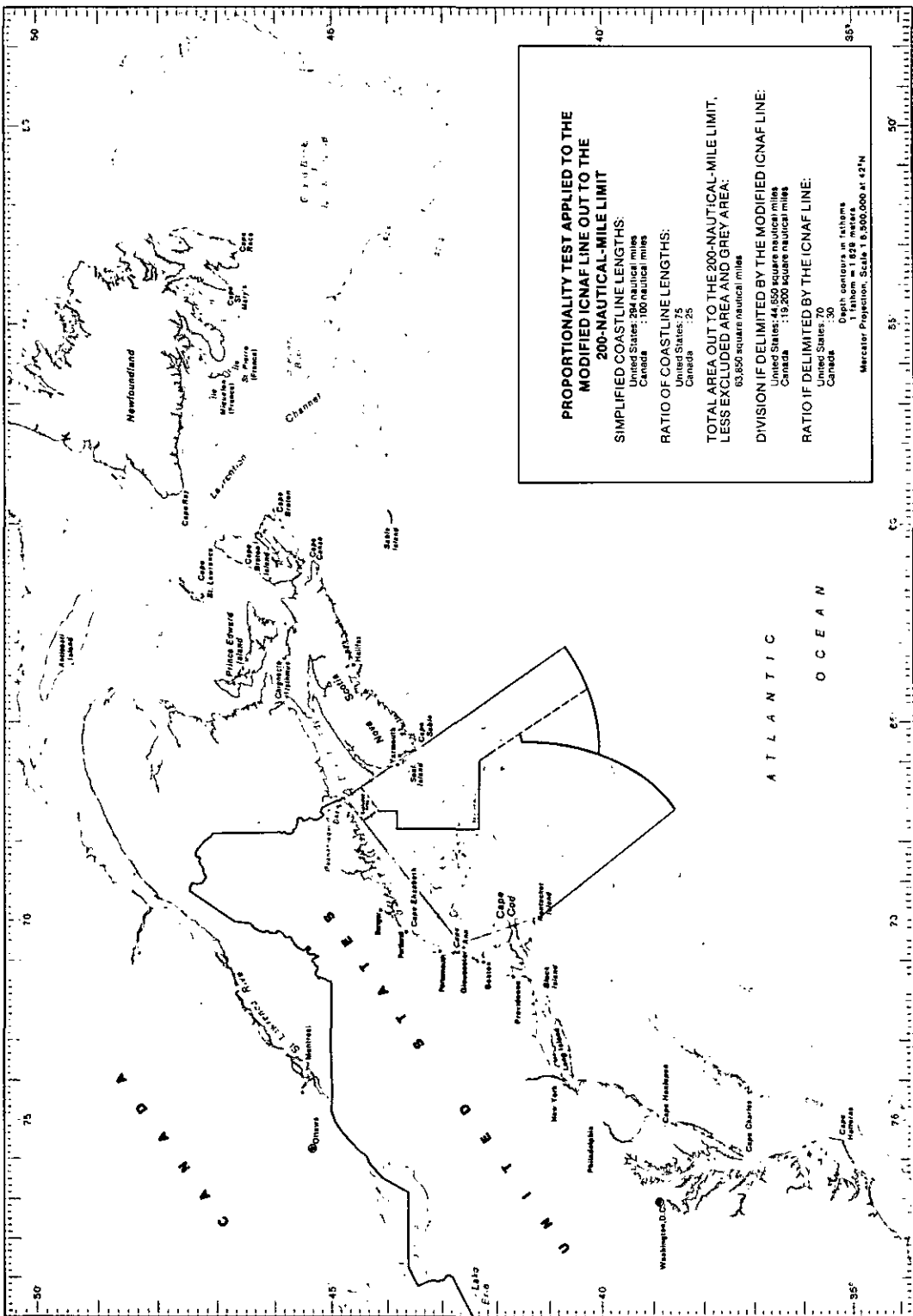
Depth contours in fathoms  
 Scale 1:5,000,000 at 47°N  
 Mercator Projection



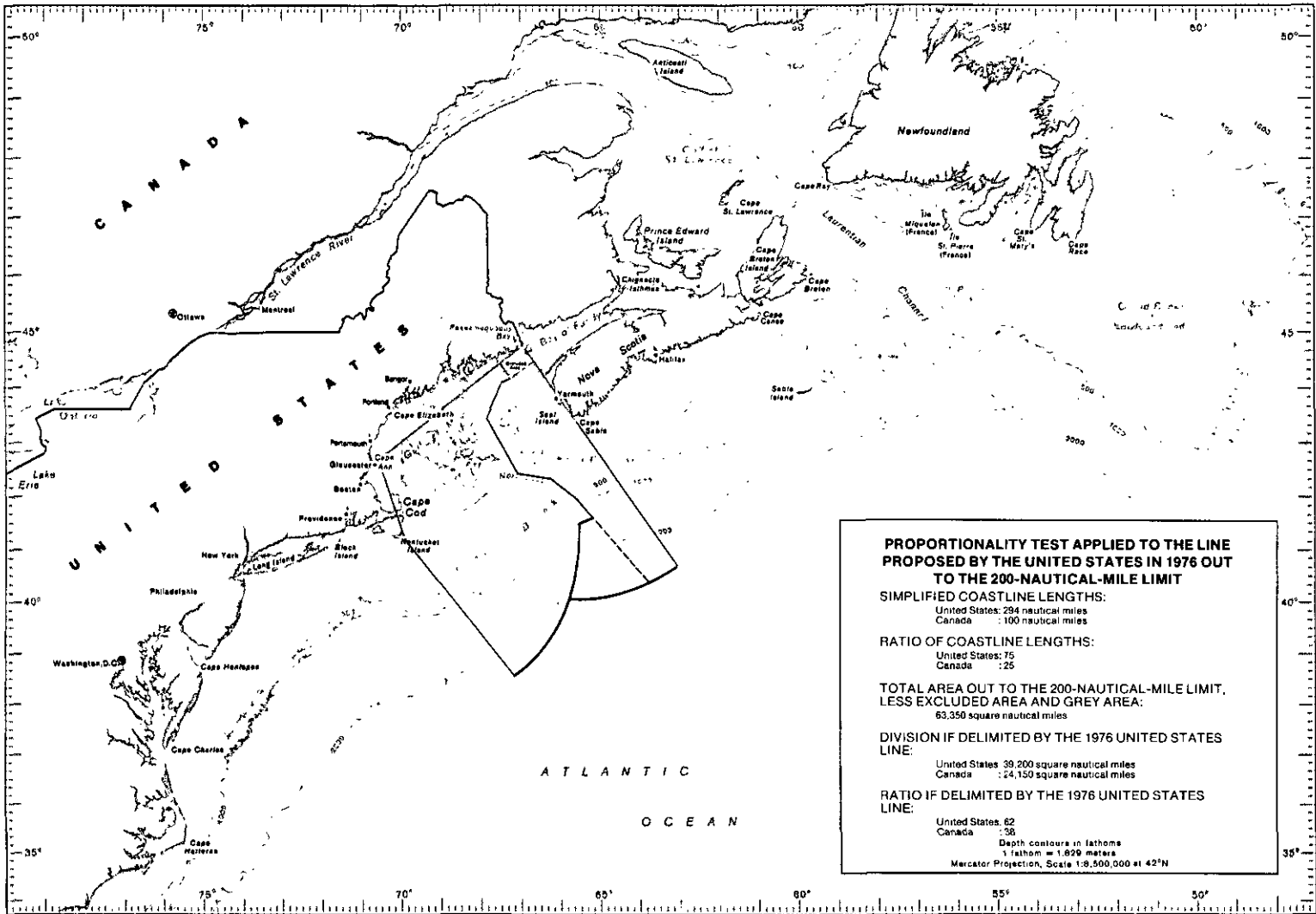
267



268







**PROPORTIONALITY TEST APPLIED TO THE LINE PROPOSED BY THE UNITED STATES IN 1976 OUT TO THE 200-NAUTICAL-MILE LIMIT**

**SIMPLIFIED COASTLINE LENGTHS:**  
 United States: 294 nautical miles  
 Canada : 100 nautical miles

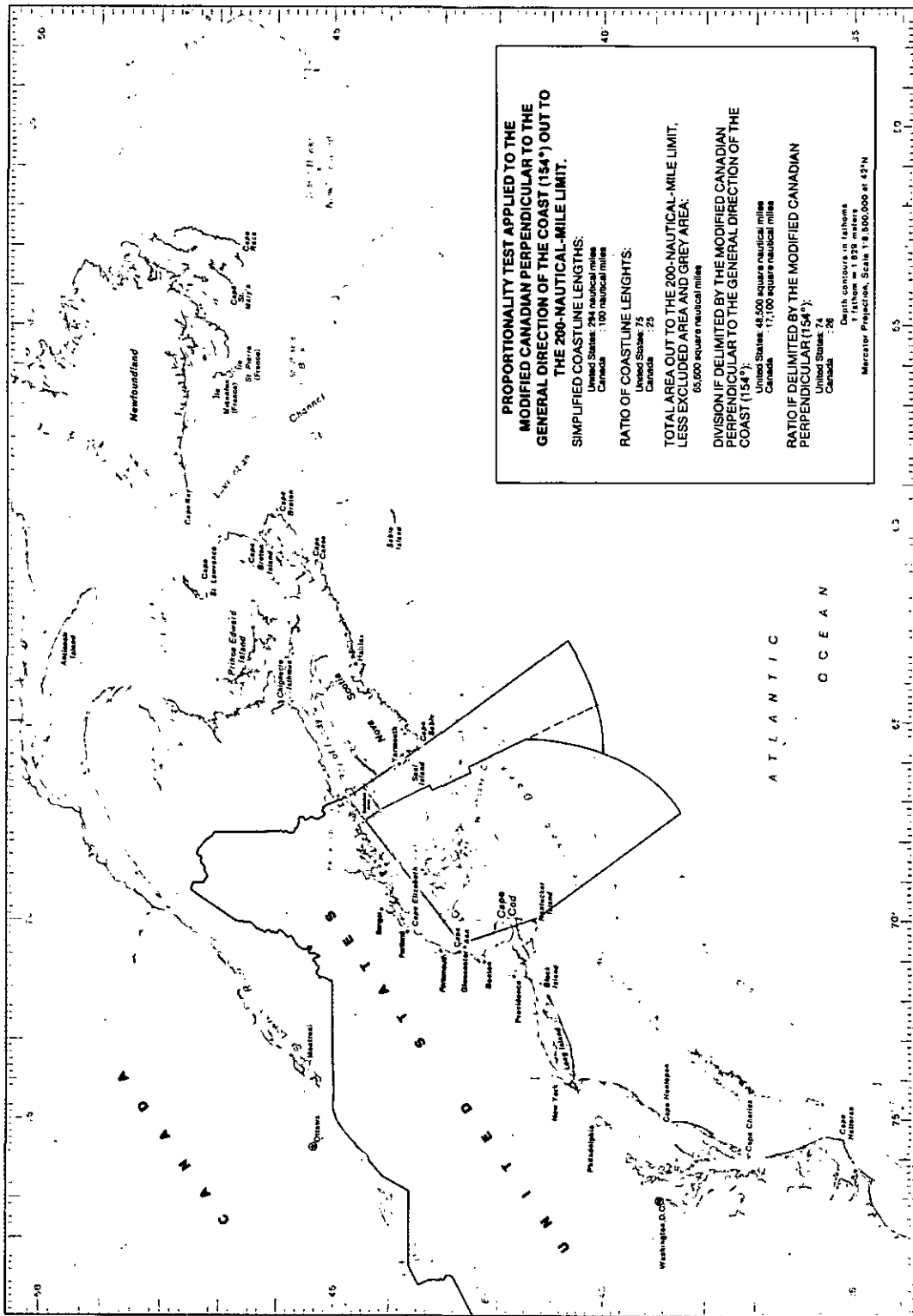
**RATIO OF COASTLINE LENGTHS:**  
 United States: 75  
 Canada : 25

**TOTAL AREA OUT TO THE 200-NAUTICAL-MILE LIMIT, LESS EXCLUDED AREA AND GREY AREA:**  
 63,350 square nautical miles

**DIVISION IF DELIMITED BY THE 1976 UNITED STATES LINE:**  
 United States: 39,200 square nautical miles  
 Canada : 24,150 square nautical miles

**RATIO IF DELIMITED BY THE 1976 UNITED STATES LINE:**  
 United States: 62  
 Canada : 38

Depth contours in fathoms  
 1 fathom = 1.829 meters  
 Mercator Projection, Scale 1:8,500,000 at 42°N



**PROPORTIONALITY TEST APPLIED TO THE MODIFIED CANADIAN PERPENDICULAR TO THE GENERAL DIRECTION OF THE COAST (154°) OUT TO THE 200-NAUTICAL-MILE LIMIT.**

**SIMPLIFIED COASTLINE LENGTHS:**  
 United States: 284 nautical miles  
 Canada: 1100 nautical miles

**RATIO OF COASTLINE LENGTHS:**  
 United States: .75  
 Canada: .25

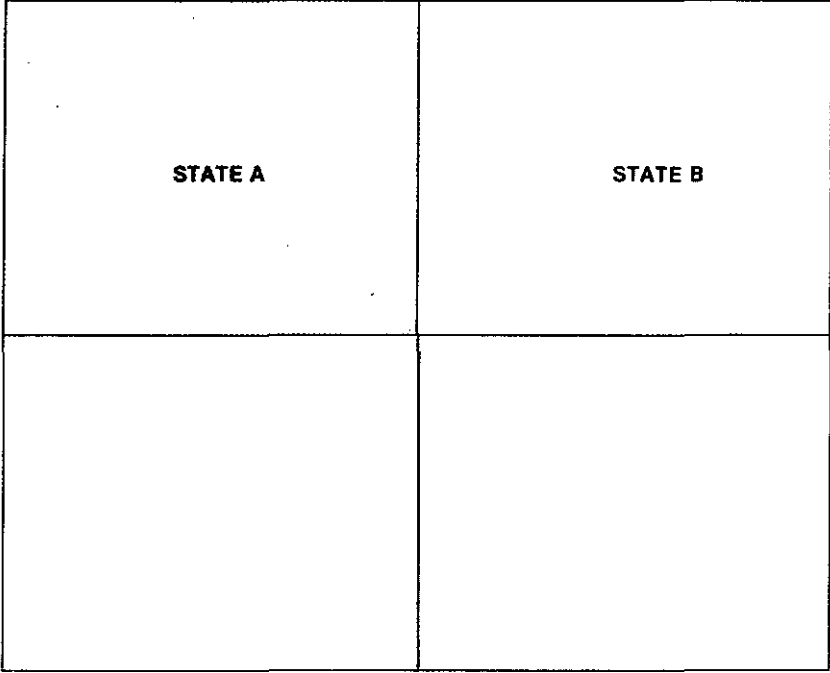
**TOTAL AREA OUT TO THE 200-NAUTICAL-MILE LIMIT, LESS EXCLUDED AREA AND GREY AREA,  
 65,600 square nautical miles**

**DIVISION IF DELIMITED BY THE MODIFIED CANADIAN PERPENDICULAR TO THE GENERAL DIRECTION OF THE COAST (154°):**  
 United States: 48,500 square nautical miles  
 Canada: 17,100 square nautical miles

**RATIO IF DELIMITED BY THE MODIFIED CANADIAN PERPENDICULAR (154°):**  
 United States: .74  
 Canada: .26

Depth contours in fathoms  
 1 fathom = 1.828 meters  
 Mercator Projection, Scale 1:6,000,000 at 42°N

A



B

