243. For these reasons,

THE CHAMBER,

By four votes to one,

Decides

That the course of the single maritime boundary that divides the continental shelf and the exclusive fisheries zones of Canada and the United States of America in the area referred to in the Special Agreement concluded by those two States on 29 March 1979 shall be defined by geodetic lines connecting the points with the following co-ordinates :

	Latitude North	*Longitude West*
A	44° 11′ 12″	67° 16′ 46″
B	42° 53′ 14″	67° 44′ 35″
C	42° 31′ 08″	67° 28′ 05″
D	40° 27′ 05″	65° 41′ 59″

IN FAVOUR : *President* Ago ; *Judges* Mosler, Schwebel ; Judge *ad hoc* Cohen ;

AGAINST : Judge Gros.

Done in French and in English, the French text being authoritative, at the Peace Palace, The Hague, this twelfth day of October one thousand nine hundred and eighty-four, in three copies, one of which will be placed in the archives of the Court and the others transmitted to the Government of Canada and the Government of the United States of America respectively.

(Signed) Roberto AGO,
President of the Chamber.

(Signed) Santiago TORRES BERNÁRDEZ.
Registrar.

Judge SCHWEBEL appends a separate opinion to the Judgment of the Chamber.

Judge GROS appends a dissenting opinion to the Judgment of the Chamber.

(Initialled) R.A.

(Initialled) S.T.B.

Delimitation of the Maritime Boundary in the Gulf of Maine Area

TECHNICAL REPORT

PRESENTED TO THE CHAMBER OF THE COURT BY COMMANDER PETER BRYAN BEAZLEY, O.B.E., F.R.I.C.S., R.N. (RETD.), THE TECHNICAL EXPERT APPOINTED, PURSUANT TO ARTICLE II, PARAGRAPH 3, OF THE SPECIAL AGREEMENT, BY THE ORDER OF THE CHAMBER DATED 30 MARCH 1984

1. To conform to Article II (2) and Article IV *(b)* of the Special Agreement, and to achieve consistency between the delimitation line and the method of its construction, all lines are taken to be geodetic lines.

2. For practical application of the methods described in the Judgment for determination of the first two segments of the line calculations have been made on the Universal Transverse Mercator grid using a Central Meridian of 68° West. The course of the closing line of the Gulf and the perpendicular to it have been determined using geodetic azimuths. Computations were based on the Clarke 1866 spheroid. The basepoints having been determined to a second of arc the final positions of the delimitation line have been defined in whole seconds of arc also.

3. *Positions of the various coastal points* were found to be as follows :

Name	*Latitude N*	*Longitude W*	*Chart*
SE tip of Nantucket Island	41° 15′ 04″	69° 58′ 01″	13241 US
LWL position for determining 200′ limit	41° 15′ 56″	69° 57′ 37″	13241 US
Cape Cod elbow	41° 38′ 35″	69° 57′ 15″	13248 US
Position on Cape Cod nearest to Chebogue Point	42° 00′ 31″	70° 01′ 36″	13246 US

Name	*Latitude N*	*Longitude W*	*Chart*
Cape Ann	42° 38′ 12″	70° 34′ 27″	13279 US
Cape Elizabeth	43° 33′ 41″	70° 12′ 02″	13290 US
International Boundary Terminus (TP15)	44° 46′ 35″.3	66° 54′ 11″.3	
North coast of Bay of Fundy	45° 16′ 31″	65° 41′ 01″	4010 Canadian
South coast of Bay of Fundy	44° 53′ 49″	65° 22′ 47″	4010 Canadian
Brier Island (Whipple Point)	44° 14′ 11″	66° 23′ 50″	4324 Canadian
Chebogue Point	43° 43′ 57″	66° 07′ 18″	4326 Canadian
Cape Sable	43° 23′ 22″	65° 37′ 23″	4216 Canadian
Seal Island (SW point)	43° 23′ 33″	66° 01′ 21″	4330 Canadian

4. All positions are on 1927 North American Datum. Corrections have been applied to positions from the Canadian charts as indicated in the Agent for Canada's letter to the Registrar dated 18 April 1984. The Annex lists the rectangular UTM co-ordinates of some of these positions.

5. The two positions in the Bay of Fundy were determined by plotting taking account of the fact that the most easterly point of a 12-mile limit (depending on the low-water lines of Quaco Ledge and the southern shore of the Bay) was found to be at 45° 04′ 21″ N, 65° 31′ 11″ W approximately.

6. *For calculation of the ratio of coastal lengths* the following true distances in nautical miles were determined :

Cape Cod Elbow to Cape Ann	65.7	
Cape Ann to Cape Elizabeth	57.9	
Cape Elizabeth to Boundary Terminus	160.0	
TOTAL United States coastline	*283.6*	(284)
Boundary terminus to N coast of Bay of Fundy	59.9	
N coast to S coast of Bay of Fundy	26.1	
S coast of Bay of Fundy to Whipple Point	59.0	
Whipple Point to Cape Sable	60.9	
TOTAL Canadian coastline	*205.9*	(206).

Therefore the ratio of coastline lengths United States : Canada is

1.38 : 1

7. *To determine the course of the bisector,* forming the first segment of the line, UTM grid bearings were determined :

Boundary terminus to Cape Elizabeth	243° 16′ 24″
Boundary terminus to Cape Sable	145° 09′ 30″.

Therefore the perpendiculars from A to these lines are, respectively,

333° 16′ 24″
055° 09′ 30″

and the course of the bisector lies along the grid bearing

194° 12′ 57″.

8. *To determine the direction of the median line,* which forms the basis of the second segment of the delimitation line, it is necessary to make allowance for a change of scale factor between the southeastern and northwestern ends of the two controlling lines. The grid bearings of the controlling lines are :

Cape Cod Elbow to Cape Ann	336° 36′ 32″.5
Cape Sable to Whipple Point	325° 07′ 14″.9.

9. A mid-point between Whipple Point and the Cape Ann to Cape Cod line will lie on a grid bearing from Whipple Point of

240° 51′ 53″.7

and will intersect the line at position

(1) 42° 32′ 29″.6 N 70° 30′ 49″.8 W.

The mid-point of this line after correcting for scale factor is

(2) 43° 24′ 27″.0 N 68° 29′ 03″.0 W.

10. Similarly a mid-point between Cape Cod Elbow and the Whipple Point to Cape Sable line lies on the reciprocal bearing which intersects at

(3) 43° 24′ 38″.4 N 65° 38′ 31″.7 W

and the corrected mid-point is

(4) 42° 32′ 50″.1 N 67° 49′ 42″.9 W

11. The grid bearing between these two corrected mid-points is the direction of the median line which is

150° 52′ 34″.3

12. *To determine the location of the second segment* of the line I understand my instructions from the Chamber to be to give half-effect to Seal Island when applying the ratio in which the line from Chebogue Point to the nearest point on Cape Cod (the location line) is to be divided. To effect this, Seal Island must be related to Chebogue Point and the location line rather than to the coast nearest to the island.

13. The true (geodetic) length of the location line was found to be

372 088 metres

and the grid bearing from Chebogue Point is

239° 04′ 36″.1.

A line parallel to the line from Cape Sable to Whipple Point (representing the coastal front of Nova Scotia) drawn from the southwestern point of Seal Island intersects the location line at a true distance of 14 234 metres from Chebogue Point. A position 7 117 metres along the location line from Chebogue Point would then represent a notional half-effect position for the island. Applying the ratio of 1.38:1 on the location line between Cape Cod and the half-effect position of the island divides the line at a position 153 349 metres from the half effect position, or

160 466 metres (grid distance 160 418 metres)

from Chebogue Point. This represents a division of the whole location line in the ratio 1.319:1 (1.32:1). The co-ordinates of this point are

(5) 43° 00′ 19″.8 N 67° 49′ 56″.7 W.

14. A line of grid bearing 150° 52′ 34″.3 from this point intersects the bisector from A at position

B 42° 53′ 14″ N 67° 44′ 35″ W

which is the first turning point on the line of delimitation. A line on the same grid bearing intercepts the geodetic line (geodesic) between Nantucket and Cape Sable at position

C 42° 31′ 08″(.35) N 67° 28′ 05″(.33) W

which is the second turning point on the line of delimitation.

15. The azimuth of the geodetic line between Nantucket and Cape Sable at position C is

N E
56° 39′ 49″
S W

so that the required perpendicular has an azimuth of

S 33° 20′ 11″ E.

The last place on the path of this perpendicular where the 200-mile zones claimed by the two Parties overlap is a point 200 nautical miles from the nearest point of the low-water line of the United States of America. The relevant point of the low-water line is given at paragraph 3 above, and the point of intersection between the perpendicular and a 200-nautical mile arc drawn from that point is position

D 40° 27′ 05″N 65° 41′ 59″W

which also lies within the area laid down in Article II of the Special Agreement.

16. The delimitation line is therefore defined by geodetic lines joining in succession the following positions the co-ordinates of which are given in 1927 North American Datum :

A	44° 11′ 12″ N	67° 16′ 46″ W
B	42° 53′ 14″ N	67° 44′ 35″ W
C	42° 31′ 08″ N	67° 28′ 05″ W
D	40° 27′ 05″ N	65° 41′ 59″ W.

This line crosses Georges Bank, as defined by the 100-fathom contour on Canadian chart 8005, at positions

42° 11′8 N 67° 11′0 W
and 41° 10′1 N 66° 17′9 W

but these positions do not form part of the definition of the delimitation line.

Done in one copy, in English, at The Hague, 3 October 1984.

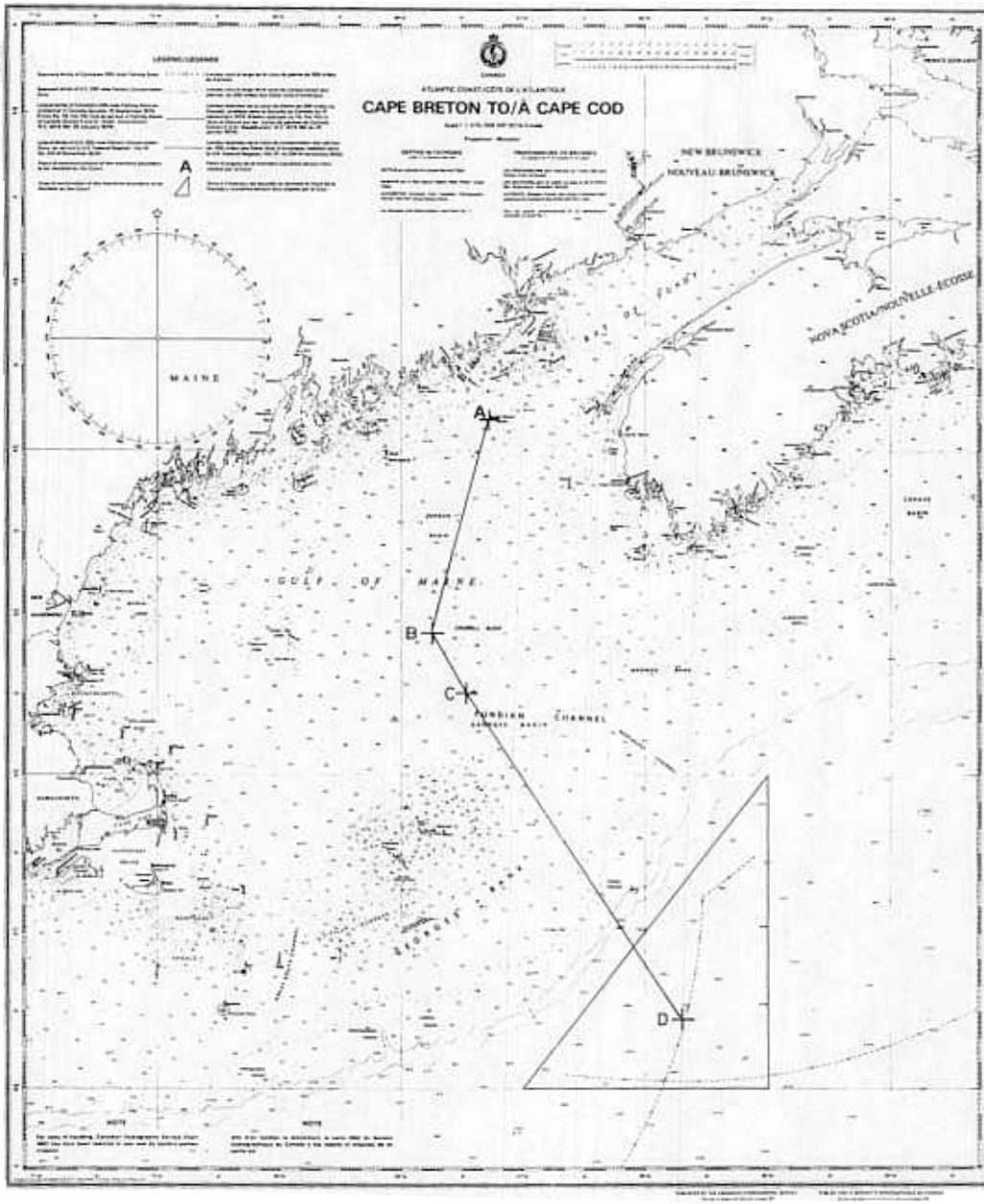
(Signed) P. B. BEAZLEY.

ANNEX TO THE TECHNICAL REPORT

List of UTM rectangular co-ordinates of certain positions mentioned in the Report. Central Meridian 68° W ; Clarke's 1866 spheroid.

Position	*Easting*	*Northing*
Cape Cod Elbow	337 251.1	4 611 778.0
Position on Cape Cod nearest to Chebogue Point	332 170.6	4 652 505.7
Cape Ann	288 940.0	4 723 466.6
Cape Elizabeth	322 270.6	4 825 296.1
TP15	586 787.5	4 958 487.9
Whipple Point	627 994.2	4 899 161.2
Chebogue Point	651 274.2	4 843 661.5
Cape Sable	692 521.4	4 806 592.0
Seal Island	660 159.4	4 806 086.4
A	557 590.2	4 892 641.9
(1)	293 572.8	4 712 756.3
(2)	460 796.9	4 805 966.2
(3)	690 908.9	4 808 905.2
(4)	514 074.6	4 710 338.6
(5)	513 658.6	4 761 224.3
B	520 972.0	4 748 097.5
C	543 688.4	4 707 324.0

(position C is on the geodesic between Cape Sable and Nantucket about 7 metres from the grid line joining those points).



DELIMITATION LINE DRAWN BY THE CHAMBER