

Case concerning the delimitation of maritime areas between Canada and the French Republic
10 June 1992

Technical report to the Court by Commander P.B. Beazley

Excerpts from the Award rendered on 10 June 1992 by the Court of Arbitration for the delimitation of maritime areas between Canada and France

1. The full description of the line of delimitation, together with the necessary geographical coordinates, is given in the Decision, and is not included in this report. All computations have been made on the ellipsoid using North American Datum (NAD) (1983) (see Canadian Memorial, p. 14, n 13), the associated ellipsoid being that of the Geodetic Reference System (1980). The international nautical mile of 1852 metres has been used.
2. Positions of the relevant basepoints have been taken from Canadian charts as indicated in the table at paragraph 4 below. As the submissions of the Parties have expressed all coordinates to 0.1 arc seconds (see Canadian Counter Memorial, pp. 251 and 252; French Memorial, p. 286) I have done the same.
3. The coordinates listed in the Agreement of 27 March 1972 are given approximately and are expressed only to the nearest arc second. Although the Canadian Counter Memorial at p. 251 has applied datum corrections to the quoted coordinates, the French Memorial does not assign coordinates to either Point 1 or Point 9. Further, Point 1, as described in the Agreement and corrected for datum change, does not lie exactly on a 12-mile arc centred on L'Enfant Perdu. It may be assumed, therefore, that had the coordinates been given to the nearest 0.1 arc second they would have been slightly different. The data is not available to determine the exact coordinates of those points as agreed in 1972, and the Court has not been asked to undertake the task.
4. The French Memorial (p. 286) lists the coordinates of an equidistant line. The controlling basepoints are named but their coordinates are not given. The Canadian Counter Memorial (p. 252) gives coordinates for most of the basepoints that they have used for the French islands, but comparison with the French equidistant coordinates shows that the coordinates used were not identical to those used by France. This is only to be expected from the scales of the charts even if the features used were the same. I have determined my own values for the coordinates of the basepoints for the French islands as defined in the Decision, although they differ only slightly from those used by Canada. The NAD 83 values used for the various basepoints which affect the delimitation, and their sources, are as follows:

Name	Latitude North	Longitude West	Source
Watch Rock	47 23 09.1	56 50 02.3	See para. 69 of Decision.
Lord Island	47 22 30.1	56 58 55.3	
Pte. à l'Abbé	47 07 32.9	56 23 30.1	
Veaux Marins	47 02 09.9	56 31 02.8	Canadian Chart 4626
Pte. Plate (extreme W)	46 49 16.5	56 24 19.2	
Pte. Plate (extreme SW)	46 49 14.5	56 24 17.4	
Cap Bleu	46 47 36.5	56 22 21.3	
Pte. du Ouest (islet SW)	46 46 58.7	56 21 00.9	
Drying rock SW of Pte. du Diamant	46 44 55.2	56 13 41.6	
Islet off Tête du Petit Havre	46 45 14.3	56 10 30.3	
Ile aux Chasseurs	46 45 41.5	56 09 15.5	Canadian Chart 4643
L'Enfant Perdu	46 47 03.7	56 06 45.4	
Cap Noir	46 46 03.2	56 08 59.6	

5. The corrections to be applied to the charted coordinates to place them on NAD 83 were obtained from information supplied by

the Agent for Canada under cover of his letter to the Registrar dated 2 July 1991. This information indicates, inter alia, that the corrections to be applied to the large scale Canadian chart 4633, which charts the Canadian basepoints, are various and large, and that the smaller scale (1/350,000) chart 4015 should be used. Information supplied by Mr. David H. Gray, of the Canadian Hydrographic Service, is that the coordinates for the relevant Canadian basepoints listed in the Territorial Sea and Fishing Zones Geographical Coordinates Order were taken off this smaller scale chart. Having checked those coordinates, I have applied the appropriate corrections to them for chart 4015, which are +0."1 in latitude and -2."7 in longitude (minus representing a decrease in westerly longitude).

6. The corrections to be applied to both charts 4626 and 4643 were -0."1 in latitude and -2."9 in longitude.

7. The controlling base points for the turning or intersection points along the line of delimitation are listed below:

Turning Point	Basepoints
A	C1, F1
B	C1, F1, F2
C	C1, C2, F2
D	C2, F2
E	F2, F3
F	F3, F4
G	F4, F5
H	F5, F6
I	F6, F7
J, M, and N	F7
Q	F8
R	F8, F9
S	F9, F10

8. The western and eastern limits of the southward projection described at paragraph 71 of the Decision are determined by Pointe Plate (F3) and Cap Noir (FE).

These give: Mean latitude 46° 47' 39."9N.

Mean longitude 56° 16' 39."4W.

The distance between the meridians passing through F3 and PE at the mean latitude is 19,502.5 metres, so that any point on the western or eastern limits must lie approximately 9,751.25 metres west or east respectively of the central meridian of 56° 16' 39."4 West.

9. The limits described by the Court for this sector are "small circles" and are neither geodetic lines nor rhumb line. A geodetic line is the closer approximation, but because positions have been given to 0.1 arc seconds it has been necessary to determine two intermediate points along each limit in order to reduce the divergence of the geodesics from the small circles to a value commensurate with the degree of precision being quoted. These are points K, L, O and P.

10. The line of delimitation has been illustrated on copies of Canadian chart 4490, which although no longer published was selected as the largest-scale chart embracing the area. The turning points of the line have been plotted by their geographical coordinatea on NAD (83) as given in the Decision, but because of Datum differences on the chart the first five points (9 to D) appear to lie further from the coast of Newfoundland than is actually the case.

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