

IHB File No. S3/7020

CIRCULAR LETTER 26/1999
1 June 1999

S-23 - IDENTIFICATION OF "SOUTHERN" OR "ANTARCTIC OCEAN"

Reference: IHB CL 27/1998 dated 8 June 1998.

Dear Sir,

Reference is made to CL 27/1998, paragraph 3, under Future Action. In this it was noted that the name and limits of "Southern" or "Antarctic Ocean" have been particularly contentious matters over the years and Member States with an interest in this matter were invited to provide the Bureau with their views. To date only seven Member States have responded. As a decision on whether to identify a new main zone in the next edition of S-23 will have a major impact on its structure, it is necessary to obtain this decision before proceeding further in the production.

Although this body of water was specifically defined in the First and Second Editions, it was left out in the Third Edition and a note on page 4 reads:

"The Antarctic or Southern Ocean have been omitted from this publication as the majority of opinions received since the issue of the 2nd.Edition in 1937 are to the effect that there exists no real justification for applying the term Ocean to this body of water, the northern limits of which are difficult to lay down owing to their seasonal change. The limits of the Atlantic, Pacific and Indian Oceans have therefore been extended South to the Antarctic Continent. Hydrographic Offices who issue separate publications dealing with this area are therefore left to decide their own northern limits (Great Britain uses Latitude of 55 South.)"

In preparing to produce a Fourth Edition, the use of the name "Southern Ocean" was put to Member States in CL 32/72. The responses of 32 Member States are discussed in CL 8/1976. The summary of comments is as follows:

"The 32 replies received from Member States indicate an overwhelming preference for the name "Antarctic". Only Australia, New Zealand and the UK prefer the term "Southern Ocean". Chile suggests the name "Antarctic Glacial Ocean", whilst Brazil and the USA wish to continue the present practice wherein the Atlantic, Indian and Pacific Oceans extend to the Antarctic Continent.

Opinions regarding the limits proposed by the UK and Australia (amended by New Zealand) were evenly divided, some countries preferring a mixture of both proposals. Norway proposed the 60 degree parallel as the northern limit and several Member States suggested that the northern limit of the Antarctic Convergence might be used.”

The decision in the end, made by the Directing Committee, was not to include a “Southern” or “Antarctic” Ocean. This is outlined in paragraph 6 of CL 6/1986, which promulgated the Draft Fourth Edition. The reasons behind its decision are listed in the letter. A compromise was offered in the last part of paragraph 6, to quote:

“In the event Member States believe that it is absolutely necessary to define a “Southern Ocean” and its subdivisions, the Bureau could be suitably tasked, and the zone, described and added after the nine adopted hydrographic zones as a “supplementary presentation for use as an aid to scientific projects” could become an Appendix to SP23. In any case, a paragraph will be added to the “NOTE” of the final publication in order to reflect the decision of Member States.” (This did not appear in the Draft Fourth Edition).

As noted in CL 27/1998, the Draft Fourth Edition of 1986 was not approved and we are now in the process of developing a version that hopefully will be approved. From the six responses received there does appear to be some change in attitude. France (SHOM) has stated that in 1983 it had confirmed its opposition to the introduction to the designation of either “Southern” or “Antarctic” Ocean but two arguments could undermine this position. Firstly, the growth of shipping in this particular area could justify its cartographic identification. Secondly, the now-approved INT scheme recognizes a special status for the area south of 60°S. Therefore, SHOM accepts the opinion expressed by the 1st Conference of the Hydrographic Committee for Antarctica, in favour of the name, yet favours the adoption of a fixed limit, corresponding to the area covered by the Antarctic Treaty. Germany has responded that although the reply of DHI of 1989 is maintained, the position outlined by the then GDR is no longer supported. Following consultation with the Alfred Wegener Institute for Polar Research, it proposes to include the term “Southern Ocean” with the new edition of S-23, as this term appears to have found widespread acceptance in international marine research. A number of oceanographic atlases already use this term. In going on to discuss the limits, Germany states that there is no precise delimitation of the northern boundary for the Southern Ocean possible. No other limit can be specified than through the seasonally variable physical boundary of the position of the subtropical front which can usually be found between 45 and 55 degrees south. The respective position of the south tropical front can be taken from oceanographic atlases.

Other Member States which have responded are Argentina, Australia, Chile, New Zealand and the UK. While all, except Argentina, favour the designation of a “Southern Ocean”, there are differences of view on the limits. The Australian position on the limits is complicated and can best be described by referring to Enclosure 2 provided in its letter, dated 28 April 1998, and a recently updated description of the turning points, provided in Annex A to Australian letter, dated 14 April 1999. These enclosures are attached as Annex A and B to this CL.

Australia notes that this definition does take account in its earlier correspondence of comments made by New Zealand. New Zealand therefore appears to support the Australian proposal. Chile, while accepting the term “Southern Ocean”, states its preference for the limits as published in the First and Second Editions. For convenience a reduced chart showing the 2nd Edition limits is attached as Annex C

Finally, we may note that the UK supports “Southern Ocean” as a term but believes that 50 degrees South should be the northern limit, although it does consider the Antarctic Convergence, but considers that it would be more practical to use 50 degrees South.

IHB Comments.

The response to CL 27/1998 on this matter has been disappointing, particularly when it is noted that there were 32 replies on the same matter in CL 8/1976. In addition, there has been no response from most of the Member States who had earlier stated opposition. On the other hand, the majority of Member States who attended the 1998 meeting of the IHO Committee for Antarctica were strongly in favour of the use of the term "Southern Ocean". The members of this Committee may be said to be the most concerned in the matter.

From the information that is available at the Bureau, it would appear that there is increasing support for designating this ocean area and that "Southern Ocean" appears to be the most appealing term.

In defining the limits there are first of all two choices, between a fixed limit and a variable limit. The latter is taken to be the limits of the Antarctic Convergence. The Bureau takes the position that while a limit that varies with the seasons may be suitably shown in an oceanographic atlas it would be difficult to use on navigational charts, which are presumed to provide the basic requirement for S-23.

For fixed limits there are the choices of:

- i) the Australian proposal;
- ii) the limits shown in the First and Second Editions;
- iii) 60 degrees South (Antarctic Treaty);
- iv) 50 degrees South (UK).

Of these, there is no doubt some simplicity in using a common parallel of latitude throughout and the Antarctic Treaty gives some legislative backing. On the other hand, the Australian proposal, although rather complex, has already been considerably discussed. If we consider that the limits adopted in Edition 2 were refined from the 1st Edition, it can be assumed that the Australian proposal carries this refinement another step forward. The main differences are in the area of Australia itself with some smaller modifications around South Georgia.

Although responses to this CL could be of a discursive nature, it is proposed to go directly to a vote in order to allow the preparation of the overall publication to proceed. For those Member States who may not like the outcome of the decision, there will always be other opportunities when the complete draft is put to Member States' approval. This does not deny Member States the opportunity to offer comments that may be further considered by the Bureau.

Member States are requested to respond to this Circular Letter by 31 July 1999.

On behalf of the Directing Committee
Yours sincerely,

Commodore John LEECH
Director

Enclosures:

- Annex A (Australian Enclosure 2 of AH96/091/00 dated 28 April 1998)
- Annex B (Paragraph 10, Annex A to Australian letter, dated 14 April 1999)
- Annex C (Reduced Map from IHB SP 23 2nd Edition 1st July 1937)
- Annex D (Voting Paper)

Copy of paragraph 10, Annex A, Australian letter of 14 April 1999:

10.0 Southern Ocean

The limits of the Southern Ocean:

On the South:

The Antarctic continent.

On the North:

Bordering the South Atlantic Ocean to the north:

From Cape de Hornos [55°58'45"South, 67°16'West], northeastward along the islands and coast to Cape Buen Suceso [54°56'10"South, 65°23'West], the south eastern extremity of Tierra del Fuego,

thence to a line to Cape San Bartolomé [54°54'40"South, 64°42'20"West], the south west extremity of Los Estados Island,

thence a line to Cape San Juan [54°43'15"South, 63°48'West];

thence eastward through Burdwood Bank [54°25'South, 58°00'West] to Shag Rocks [53°33'South, 42°01'West],

thence eastward to Willis Islands [54°00'South, 38°14'West] off the western extremity of South Georgia Island,

thence along the southern coast of Willis Islands and South Georgia Islands to Cape Vahsel [54°45'30"South, 35°47'30"West],

thence a line eastward to 53°00'South, 00°00'East and

thence a line eastward to a point [45°00'South, 20°00'East] [the meridian of Cape Agulhus].

Bordering the Indian Ocean to the north:

From the point [45°00'South, 20°00'East], a line eastward to the position [45°00'South, 90°00'East], and

thence a line north eastward to Cape Leeuwin [34°22'30"South, 115°08'00"East].

Bordering Australia to the north:

From Cape Leeuwin eastward along southern coast of Australia to Cape Otway [38°51'30"South, 143°30'40"East], the southern point of the western coast of the Australian State of Victoria,

thence a line southward to Cape Wickham [39°34'45"South, 143°57'05"East], the northern point of King Island,

thence southward along the western coast of King Island to Stokes Point [40°09'20"South, 143°55'25"East], the southern point of King Island,

thence south eastward to Cape Grim [40°40'45"South, 144°41'05"East], a point on the northern part of the west coast of Tasmania,

thence generally southward and southeastward along the western and southern coasts of Tasmania to South East Cape [43°38'35"South, 146°49'30"East], the southern point of Tasmania.

Bordering the South Pacific Ocean to the north:

From South East Cape, a line south eastward to position [53°00'South, 162°00'East],

thence a line eastward to the position [53°00'South, 162°00'East],

thence a line eastward to the position [53°00'South, 173°00'West],

thence a line eastward to southern extreme of Waterman Island [55°22'30"South, 70°00'West] off S coast of Chile,

thence SE along the islands to Cape de Hornos [55°58'45"South, 67°16'West], the point of commencement.

VOTING PAPER
(to be returned to the IHB, duly completed by 31 July 1999)

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Member State _____

Date of reply _____

1. Do you agree that there should be a single name given to the sea areas surrounding Antarctica?

Yes No

2. Do you agree that the area be called "Southern Ocean"?

Yes No

3. Should the northern limit be defined by:

- | | | |
|----------------------|-----|-----|
| a) A fixed limit? | Yes | No |
| b) A moveable limit? | Yes | No. |

4. If a fixed limit, then :

- | | | |
|---|-----|-----|
| a) 50 degrees South? | Yes | No. |
| b) 60 degrees South? | Yes | No |
| c) The Australian proposal at Annex A? | Yes | No |
| d) As defined in 2 nd Ed. of S-23? | Yes | No |
| e) Other | | |

Do you have comments on any of the questions above or on any of the contents of this Circular Letter?

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Signature _____