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**CIRCULAR LETTER 33/2005
24 March 2005**

**IHO HYDROGRAPHIC COMMITTEE ON ANTARCTICA
4th Meeting, Kythnos I., Greece, 6-8 September 2004**

Dear Hydrographer,

The 4th meeting of the Hydrographic Committee on Antarctica (HCA) took place on the island of Kythnos, Greece, from 6 to 8 September 2004. Minutes of the meeting are available on the IHO website (www.iho.shom.fr > Reg Hydro Commissions > HCA).

It has to be highlighted that cooperation with IAATO and COMNAP has been extremely fruitful. Representatives of these two organizations attended the 4th HCA meeting as observers. IAATO has kindly expressed its willingness to contribute with ships of opportunity to improve the level of hydrographic information gathering and COMNAP has offered proposals to establish aids to navigation where there exists potential risk for navigation. In particular, the following two issues are worth noting:

- Terrestrial Aids to Navigation in Antarctica. A list of those AtNs which have been recommended so far is provided in **Annex A**. Member States may wish to bring this information to the attention of their national maritime administrations.
- International Charts. A proposal was received at the IHB from an IAATO member to include 11 new INT charts in the INT chart scheme for Region 'M'. This matter is currently under consideration by HCA.

The IMO representative reported on the on-going work on Large Passenger Ship Safety and on improving the safety to navigation in remote areas. It was noted that it was the first time that IMO participated in HCA meetings and it was evident that its contribution was in-line with the objectives of the Committee.

IOC was also represented and contributed to the success of the meeting. The recent establishment of IBCSO was considered a good step forward towards the coordination of gathering bathymetric information in the Antarctic region.

The salient issue of the meeting was the establishment of an HCA Survey Programme Working Group with the following objectives:

- to establish a prioritised HCA statement of survey requirements
- to develop guidelines, complementing S-44, for gathering and submitting surveying observations in ships of opportunity
- to promote and co-ordinate hydrographic activity for maximum output during the International Polar Year (2007-2008) by advocacy for an IPY Hydrographic Initiative.

The current developments by this WG include:

- Assessment criteria to prioritise areas requiring surveys,
- A scheme for a main corridor round the Antarctic Peninsula, labelled “Proposed Maritime Shipping Routes”.
- Guidelines for the collection of hydrographic information by tours vessels (to be provided to IAATO¹ and COMPNAP² when finalized).

HCA activities, as reported above, are in line with the objectives of the Antarctic Treaty Parties and with the other participating international organizations concerned with the quality and availability of hydrographic information on remote areas, the Antarctic being an excellent example of this condition. Reports will be presented to the next ATCM Conference (Stockholm, Sweden, June 2005) and to IMO (NAV 51) that will be held in London, UK, June 2005.

As mentioned earlier in this letter, it is planned that HCA will take the opportunity of the International Polar Year (IPY, 2007-2008) to promote hydrographic activity in Antarctica. Contact has already been established with the IPY planning committee, via SCAR³.

Finally we would like to inform you that the 5th HCA Meeting would take place in Christchurch, New Zealand, on 2-4 November 2005 at the kind invitation of Land Information New Zealand (LINZ).

Any comments will be welcome.

On behalf of the Directing Committee
Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Hugo Gorziglia', written over a light blue circular stamp.

Captain Hugo GORZIGLIA
Director

Encls. : Annex A - Terrestrial Aids to Navigation in Antarctica

¹ International Association of Antarctic Tour Operators

² Council of Managers of National Antarctic Programmes

³ Scientific Committee on Antarctic Research

TERRESTRIAL AIDS TO NAVIGATION IN ANTARCTICA

Introduction.

Following the 3rd HCA meeting (2003), the IHB consulted SCAR, COMNAP and IAATO to obtain views of ship operators on priorities for terrestrial aids to navigation. The views and recommendations expressed so far are summarized below. More information can be found in Doc. HCA4-6.1B which is on the IHO website (www.iho.shom.fr > Reg Hydro Commissions > HCA > List of HCA/4 Documents). The following statements in that document are worth noting:

It is extremely difficult and expensive to place and maintain structures on the coastline of Antarctica. Erection of new AtNs should be limited to where danger exists and where there is the highest density of shipping. Also, there must be means to ensure good reliability of any new AtN (a reliability factor of under 80% would probably be more dangerous than helpful). Erecting such artificial objects as AtNs may be considered as an act of a change in nature and environment. In any case, this needs to be in agreement with the Antarctic Treaty and its Protocol. Noting that several permanent geodetic GPS stations are already operated for geodetic observations on the Antarctic Peninsula, a network of three of these stations, e.g. Jubany-Dallmann, Palmer Base and Rothera Base, could cover the entire AP region and supply all ships operating in this region with high precision GPS positions for safe navigation (better than 10 m).

It is intended to make this list an on-going document, available from the IHO website (HCA page). Contact will be maintained with the above organization to update and enrich the list.

No.	Area	Type	Latitude	Longitude	Comments	Proposer
1	N. Antarctic Peninsula, E. of the South Sandwich Is., Bransfield Strait	Lighthouse	61° 55'S	057° 39'W	The extreme Eastern part of the South Sandwich Is. has been rounded when the vessel is on her way to and from the Bransfield Strait. In front of the coast are some dangerous rocks.	Uwe Pahl, Master RV Polarstern ⁴ , Germany
2	N. Antarctic Peninsula, passage between W. of Joinville I. and the AP.	Lighthouse / leading lights	63° 22'S	056° 35'W	This is the passage between the western part of Joinville I. and the Antarctic Peninsula. The passage is relatively often used by vessels plying between Bransfield Strait and the Weddell Sea.	Uwe Pahl, Master RV Polarstern, Germany
3	N. Antarctic Peninsula, passage to Neumeyer Channel and Paradise Bay.	Lighthouse, light preferably to be established with sectors	64° 20'S	062° 58'W	The passage to areas like Neumeyer Channel and Paradise Bay is frequently approached by tourist vessels from North.	Uwe Pahl, Master RV Polarstern, Germany

⁴ Operated by the Alfred Wegener Institute (AWI)

No.	Area	Type	Latitude	Longitude	Comments	Proposer
4	Antarctic Peninsula, Graham Land, Butler Passage to Lemaire Channel	Racon, Light and highly visible tower/beacon.	64 58.9S	063 47.8W	Heed Rock, low-lying rock	John Pye, BAS ⁵
4 bis	Antarctic Peninsula, Graham Land, Butler Passage to Lemaire Channel	Racon, Light and highly visible tower/beacon	64 57.8S	063 47.1W	Alternative site to Heed Rock .The passage is very narrow at one point due to low lying rocks on each side namely Heed Rock and Hazard Reef. Hazard Reef presently has a small beacon but it is very hard to see. Again these rocks are low lying and position fixing by radar and visual bearing can be hampered by bergs and bergy bits leading to incorrect identification. A good beacon readily identifiable with certain position would greatly lessen the chance of grounding.	John Pye, BAS
5	Antarctic Peninsula, Argentine (Irizar) Islands & Graham Land, French Passage/Penola Strait.	Racon, Light and highly visible tower/beacon	65 13.0S	064 12.5W	Fanfare Island. The whole of this archipelago is low lying. If making an approach in from the west fixing position with certainty by radar before dangers exist is difficult. The safe approach via French Passage into Penola St is difficult. Again the abundant presence of bergs and bergy bits makes correct identification of radar targets very difficult	John Pye, BAS
5 bis	Antarctic Peninsula, Argentine (Irizar) Islands & Graham Land, French Passage/Penola Strait.	Racon, Light and highly visible tower/beacon	65 11.4S	064 12.3W	Alternative to Fanfare. The whole of this archipelago is low lying. If making an approach in from the west fixing position with certainty by radar before dangers exist is difficult. The safe approach via French Passage into Penola St is difficult. Again the abundant presence of bergs and bergy bits makes correct identification of radar targets very difficult	John Pye, BAS
6	Antarctic Peninsula, Argentine (Irizar) Islands Graham Land, Southwind Channe l/ Grandidier Channel.	Racon, Light and highly visible tower/beacon	65 20.0S	064 32.8W	Gedges Rocks.	John Pye, BAS

⁵ British Antarctic Survey

No.	Area	Type	Latitude	Longitude	Comments	Proposer
6 bis	Antarctic Peninsula, Argentine (Irizar) Islands Graham Land, Southwind Channe I/ Grandidier Channel.	Racon, Light and highly visible tower/beacon	65 22.5S	064 19.6W	Somerville Island as an alternative to Gedges Rocks.	John Pye, BAS
7	Antarctic Peninsula, Austin Rocks, lying south of Deception in the middle of the southern end of the Bransfield Strait and Boyd Strait	Racon, or light beacon	63 26S	061 05W	All shipping heading southwards of the S. Shetlands will pass these rocks if taking the Gerlache Strait. These rocks are low lying and if small bergs are present, bergs could be wrongly identified as Austin Rocks leading to a danger of grounding.	John Pye, BAS