

**IHO HYDROGRAPHIC COMMITTEE ON ANTARCTICA (HCA)
3rd Meeting, IHB, Monaco, 8 – 10 September 2003**

FINAL MINUTES

- Notes:*
- 1) *A list of acronyms used in these Minutes is at Annex F.*
 - 2) *A list of all actions agreed at HCA/3 is at Annex A*
 - 3) *Names of persons are written in full the first time they appear in the Minutes. Afterwards, only the surname is shown.*

1. OPENING REMARKS

The 3rd Meeting of the IHO Hydrographic Committee on Antarctica took place in the IHB Conference Room on 8-10 September 2003.

Attendees (see list in Annex B) were welcomed by Vice Admiral Alexandros Maratos, IHB president. He made special mention of the planned IBCSO Project, the under going project for updating IHO publications S-55 that would include area covered by S-59, and the IHO study on the Status of Hydrography and Cartography in remote areas, including Antarctica, which was submitted to NAV 49.

Rear Admiral Kenneth Barbor, IHB Director, mentioned the need to foster ENC production in Antarctica for use on ECDIS, and the necessary cooperation with Industry.

Captain Hugo Gorziglia, IHB Director and Chair of HCA, made special mention of Poland, represented at HCA for the first time. He stressed the need for HCA members to be more active, stated that HCA/3 was held back to back with CBC/1 to facilitate attendance at both meetings, and mentioned the IHO presentation to ATCM 26, early this year.

2. APPROVAL OF THE AGENDA (HCA3-2A)

The Agenda (see Annex D) was approved without amendment. The Chair proposed to take Agenda Item 5 (Review of Statutes) before Item 3 (Election of Chairman) so as to clarify in the Statutes the issue of HCA chairmanship before addressing the election of Chair and Vice-Chair. This was agreed. The Time table was amended accordingly.

3. LIST OF ACTIONS FROM HCA/2 (HCA3-4A)

The Secretary, Ing. en chef Michel Huet (IHB), conducted a review of the status of all actions resulting from HCA/2. The following comments were noted (# below refer to the numbering of actions, as in document HCA3-4A):

5 (Use of Satellite Imagery for INT 9056 – South Africa producer)

UK reported on comments from CSPCWG (Chair : Mr. Peter Jones, UK), as follows:

- INT Spec 301 leaves selection of colour for land tint to national discretion.
- The direct use of uninterpreted satellite image for topography does not appear to cause any problems from a user perspective, although the addition of near-shore elevations may enhance its utility.

- Potential printer nations would have difficulty should they prefer conventional symbology.

It was agreed that the IHB would forward these comments to South Africa.

Action:

IHB to forward to South Africa the comments on the use of satellite imagery for INT 9056, which have been received from the CSPCWG.

7 and 18 (Positioning of aids to navigation in the Antarctic)

Action:

Noting the difficulties of placing and maintaining structures in Antarctica it was agreed that the IHB would consult SCAR, COMNAP and IAATO to obtain views of ship operators on priorities for terrestrial aids to navigation.

10, 11 and 26 (Listing Nautical Publications on Antarctica on the IHO website)

Action:

It was agreed that HCA Members would provide the IHB with a list of their publications on Antarctic waters, with a brief résumé (maximum of 5 lines) of their contents. IHB will then maintain a register of these publications on the HCA page of the IHO Website.

15 (Provision of tidal data to SCAR)

Action:

It was agreed that IHB would contact SCAR, asking for confirmation of the SCAR's need for tidal data and details on the requested data. IHB to then monitor this issue and, possibly, ask HCA Members to forward tidal data to SCAR.

#16 (Visit of vessels from non-ATCM countries in Antarctica)

Action:

Noting IAATO's concern over the entry of new ship operators into Antarctica, with no experience of navigational conditions in Antarctica, and sometimes with inadequate planning, it was agreed that HCA Members should maintain communication with IAATO and COMNAP to assist to encourage best practice.

17 (Impact on marine mammals of multibeam systems)

GEBCO (Dr. Hans Werner Schenke, AWI, Germany) indicated that he would report on the matter later in the meeting. Also, suggestion by Italy (Cdr. Paolo Lusiani) to contact SACLANCEN (La Spezia, Italy) on this issue, would be dealt with at the same time.

#19 (Awareness of the need for good survey data in Antarctica)

Australia (Capt. Bruce Kafer) and UK (Mr. Nicholas J. Webb) reported that they took action on this item.

20 ((Future Meetings of IAATO)

IAATO (Ms. Denise Landau) mentioned that the next IAATO meeting was planned in either Christchurch, New Zealand sometime between April 20-30 or Norway at the end of March. A final decision will be made in the near future.

25 (Placing information on navigation cruises, etc. on the IHO website)

Suggestion by Australia (Kafer) to make, on the IHO Website, links to other websites giving information on activities in Antarctica was agreed.

Action:

IHB to include in the HCA page of the IHO Website links to other websites giving information on activities in Antarctica.

4. REVIEW OF STATUTES

The Chair provided a review of which IHO Member States had signed the Statutes. He noted that 12 HCA Members out of 23, had signed the current Statutes. The required majority to approve changes to the Statutes was therefore 7. He further mentioned that 9 of those 12 HCA Member States were represented at the meeting.

To make the Statutes more permanent, he suggested to remove TR T 1.3 and the ATCM Resolution from the Statutes (Appendices A and C). This was supported by Australia (Kafer), France (Ing. en chef Michel Le Gouic), and UK (Webb), whereas Norway (Mr. Odd Breivik) preferred inclusion of the ATCM Resolution.

Italy (Lusiani) noted that the Statutes constitute a legal document which should include everything. He further noted that removing any reference to the ATCM Resolution could solve the problem of “permanence” of the Statutes.

IHB (Maratos) believed that it was better to keep TR T 1.3 and the ATCM Resolution in the Statutes as Appendices. He suggested that the IHB be tasked to amend the appendices, as necessary, as a routine administrative action and to then circulate the Statutes, as amended, to HCA Members. This view was generally supported.

The meeting appointed a Task Group (Australia, Chile, France, Italy and UK) to draft the required changes to the Statutes, following discussion by the meeting. The Task Group was led by Capt. Fernando Mingram (Chile).

Outcome:

IHO Technical Resolution T 1.3 and ATCM Resolution will be kept as Appendices in the Statutes, which were amended to enable replacement of these appendices, as necessary, without constituting a formal change of the Statutes.

On the following day, Capt. Mingram presented the proposed amendments to the Statutes, as developed by the Task Group, which were reviewed by the meeting.

The revised Statutes appear at Annex E, where changes from the previous version have been highlighted. They were approved unanimously by the participants that represented the 9 HCA Member States entitled to vote, as they had previously signed the Statutes.

The Chair invited participants with an appropriate mandate to sign the Statutes. This copy will constitute the original HCA Statutes, to be kept at the IHB. The other HCA Members were asked to take a copy of the Statutes, have them signed by their appropriate authority, and return to the IHB the signature page which will be appended to the original copy of the Statutes.

Action :

IHB to circulate the revised Statutes, requesting signatures by appropriate authorities. The **IHB** to then keep the original copy of the Statutes.

5. CHAIRMANSHIP

The Chair reported that one nomination for chairing HCA had been received from Chile (Capt. Mingram). IHB (Maratos) reminded that there were views expressed at the 2002 International Hydrographic Conference that IHO Committees/WGs should be chaired by Member States representatives. However the IHB Directing Committee would have no problems if a majority of HCA Members wished to keep an IHB Director as Chair (i.e. Capt. Gorziglia).

Australia (Kafer) proposed that an IHB Director should continue to chair the HCA, as Antarctica is an international area, and the current arrangement also facilitated liaison with other international organizations. France (Le Gouic), UK (Webb), Rep. of Korea (Mr. Choi Shin-Ho) and India (Cdr. Vinay Badhwar) supported Australia's views.

Chile (Mingram) reported that it had received a number of letters of support for the HCA being chaired by Capt. Mingram. In case of HCA Chair being an IHB Director, Chile would be willing to serve as Vice-Chair. Australia (Kafer) remarked that, in that case, it would be necessary to amend the Statutes since at present Vice-Chair is from the host country.

In addition to Chile, Norway (Breivik), Italy (Luciani) and Greece (Col. Giorgios MAKRIDIS) supported the view that the HCA Chair be from a Member State.

France (Le Gouic) suggested a permanent Vice-Chair.

The Chair noted that out of the 9 MS representatives to the Committee entitled to vote, 5 were in support to keep the statutes and 4 were in support to change them. Therefore there was no sufficient majority for amending the current article of the Statutes which states that the HCA should be chaired by an IHB Director.

UK (Webb) proposed Capt. Mingram (Chile) for the position of Vice Chairman, initiative that was seconded by Norway (Breivik) and unanimously supported. Capt. Mingram was elected Vice Chairman.

<p>Outcome:</p> <ul style="list-style-type: none"> - Capt. Hugo Gorziglia (IHB Director) continues as Chairman of HCA. - Capt. Fernando Mingram (Chile) is elected Vice-Chairman of HCA.

6. HCA ACTIVITIES IN RELATION TO THE IHO WORK PROGRAM

6.1 INT Charts – Region M of M-11

It was confirmed that UK has producer status for chart INT 908.

It was remarked that INT 9112 (UK producer) and 9121 (Spain producer) duplicate a 1:25 000 plan of Half Moon Island. The need for liaison between UK and Spain to resolve this issue was mentioned. A possibility could be that the plan be dropped from INT 9112, as this chart has not yet been published.

<p>Action</p> <p><i>The IHB to invite UKHO and IHM to resolve the duplication issue. Further noting that INT 9121 had been published in 1998, whereas INT 9112 is planned for the future, it was suggested that dropping this plan from INT 9112 could be an option to solve the problem.</i></p>
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A master copy of Chapter M of M-11 (HCA3-6.1A) was circulated for comments/corrections. These were reflected in a revised version which was produced and distributed during the meeting.

For ease of updating INT charts, for consistency, and as they constitute the basis for ENC production, the Meeting recommended that INT charts in Antarctica should be referred to WGS-84. UK (Capt. Michael Barritt) suggested to generalize the recommendation to all INT charts. He added that, in Antarctica in particular, there is a need for INT charts based on a common geodetic datum, for safety of navigation.

Chile (Mingram) stated that users' point of view, e.g. IAATO, should be taken into consideration. IAATO (Landau) advocated the use of one single datum.

Outcome:

The Meeting adopted the following new Recommendation:

Noting IMO concern over safety of navigation in remote areas, and IAATO evidence of the particular challenges in Antarctica, the HCA recommends to the IHB that WGS 84 should be adopted as the common datum for INT charts and ENCs, and proposes IHB task the CSPCSW with assessing the merits of this proposal.

Following a request by New Zealand (LINZ) in their national report (HCA3-6.4E), the meeting formally approved the insertion, in the INT Chart Scheme for region M, of the following INT charts, with New Zealand as producer :

No. INT	Title/Plan Title	CHART LIMITS				Scale
		Latitude		Longitude		
		South	North	West	East	
9006	Cape Adare and Cape Hallett					
	Plan A – Cape Adare	71°22'S	71°09.3'S	169°56'E	170°48'E	
	Plan B – Cape Hallett	72°22'S	72°09.1'S	169°49.9'E	170°44.7'E	
	Plan C – Ridley beach	71°19.0'S	71°17.3'S	170°09.4'E	170°13.5'E	
	Plan D – Seabee Hook	72°20.0'S	72°18.0'S	170°10.0'E	170°14.7'E	
9007	Possession Islands	72°02.5'S	71°42.1'S	170°36.0'E	171°23.8'E	1:60 000
9008	Cape Adare to Cape Hallett	72°46'S	71°00'S	168°20'E	172°00'E	1:200 000
9009	Cape Hooker to Coulman Island	73°47'S	69°18'S	165°00'E	174°10'E	1:500 000
9012	Balleny Islands	68°08'S	65°20'S	161°20'E	165°52'E	1:300 000
	Plan A – Balleny Seamount	65°50'S	65°10'S	160°00'E	161°40'E	

The Meeting also confirmed the approval for inclusion in the scheme of Charts INT 9004 (Italy producer) and INT 9017 (France producer), as reported in HCA Letter 3/2003, with details as follows:

No. INT	Title/Plan Title	CHART LIMITS				Scale
		Latitude		Longitude		
		South	North	West	East	
9004	<i>To be completed by Italy</i>	75°56'S	74°05'S	162°00'E	167°00'E	1:250 000
9017	De l'Ile Hélène au Rocher du Débarquement - Archipel de Pointe Géologie	66°42.1'S	66°34.0'S	139°42.0'E	140°11.8'E	1:20 000
	Plan A – Accès à la Base Dumont d'Urville	66°40.3'S	66°39.2'S	139°58.9'E	140°01.8'E	

Outcome:

The meeting approved the inclusion, in the INT Chart Scheme for region M, of Charts INT 9006, 9007, 9008, 9009 and 9012 (New Zealand producer), INT 9004 (Italy producer) and INT 9017 (France producer).

6.2 Bilateral and Regional Cooperation

Italy (Lusiani), Chile (Mingram) and India (Badhwar) reported on their good cooperation with Argentina on Antarctic activities. As examples, Chile mentioned that they had combined navy patrol and exchange of officers with Argentina.

India (Badhwar) reported similar training cooperation with Argentina. India does not have a ship to deploy to Antarctica, but can provide personnel and equipment to undertake hydrographic surveys.

UK (Barritt) asked if it would be possible for ships of IAATO Members to be used to transport hydrographers to Antarctica. IAATO (Landau) answered that this should be possible. IHB and IAATO should liaise to find a mechanism to make this possible, and a well-defined mandate should be given to the embarked hydrographic personnel. Therefore, there is a need for a protocol to be developed between IHB and IAATO to establish a regime for hydrographic surveyors to conduct surveys in Antarctic waters in IAATO vessels of opportunity.

Action:

IHB to liaise with IAATO to possibly find a mechanism for hydrographic surveyors to be carried in IAATO ships of opportunity to conduct hydrographic activities in Antarctica.

6.3 Interaction with IOC**6.3.1 GEBCO**

GEBCO (Schenke) reported on the history of GEBCO, its structure (Guiding Committee, Sub-Committees, etc.), the GEBCO Digital Atlas (GDA) and its Centenary Edition in 2003.

He also reported on GEBCO/SCUFN activities, noting that the Antarctic portion of the GEBCO Gazetteer of Undersea Feature Names includes only 184 names, as compared to the 17,000 names in the SCAR Composite Gazetteer, most of them on "land". Therefore, it is hoped that many new names will be proposed in future for bathymetric features in this area.

GEBCO (Schenke) noted that there was a lack of bathymetric data from this region, particularly in the SW Pacific sector.

Actions:

GEBCO (Dr. Schenke) to provide the IHB with a list of scientific institutions which would be asked to prepare and submit name proposals to GEBCO/SCUFN when they discover new undersea features.

IHB to then issue a CL, asking Member States to contact scientific institutions in their countries, as appropriate, and provide them with relevant information (Undersea Feature Name Proposal Form, Publication B-6, Gazetteer, etc.)

6.3.2 IBCSO Project

IBCSO (Schenke) gave a presentation on the Southern Ocean Mapping Project, to be developed entirely in digital form, modelled on the successful IBCAO Project. He reported on bathymetric data available and on bathymetric charts already produced in Antarctica. He also provided a “Fledermaus” demo using Weddell Sea topographic data.

IBCSO (Schenke) presented a project work plan for IBCSO (collection of data, construction of database, data quality control, etc.). Sponsors will be IOC, IHO and SCAR, with the following contact persons : G. Giermann (IOC), H. Gorziglia (IHO), and J. Manning (SCAR).

The IBCSO launch meeting is planned to occur on 30 July 2004, in Bremen, Germany, in conjunction with a COMNAP-SCAR Meeting.

UK (Webb) indicated that they would support a review of IHO policy on provision of HO’s data in support of IBC projects.

The Chair stressed the need for closer liaison between the IHO and IOC in Ocean Mapping Projects. Australia proposed that a joint resolution be developed for presenting to the IOC Executive Council. The meeting agreed to this proposal, however, the Chairman advised that any such proposal must also be submitted to IHO Member States for consideration and approval.

Action:

IHB to draft, in liaison with the IOC Secretariat and Dr. Schenke as prospective IBCSO Chair, a proposal to be submitted to the IOC Executive Council (June 2004) and the IHO Member States, on improving cooperation and collaboration in support of ocean mapping projects, e.g. GEBCO and IBCs.

6.4 HYDROGRAPHIC SURVEYING, NAUTICAL CHARTING

6.4.1 National Reports

Norway (HCA3-6.4A) – Currently, no hydrographic surveys are conducted in Antarctica. INT 904 (1:2 Million) was published in 2002.

UK (HCA3-6.4B) – An overview of INT chart production and hydrographic surveys, carried out and planned, was given.

IAATO (Landau) thanked UKHO and all HOs active in Antarctica for their work. She will encourage IAATO ships to provide hydrographic information to IHO.

UK (Barritt) remarked that sometimes cruise ships navigate in areas where no official charts are available. He expressed concern that commercial interests may be an impediment for chart data being released. IAATO (Landau) answered that there is an official reporting system which should ease the release of chart information. However there has never been a mandate or official urging by either the IHO or IAATO to companies to send updated charting information. Several IAATO member companies however have been proactive and have been sending chart updates regularly to various Hydrographic Offices.

Italy (HCA3-6.4C) – Area of interest : TERRANOVA Bay in the Ross Sea.

UK (Barritt) suggested that experiences in tidal data observations by non-HCA Members be sought, e.g. Denmark in Greenland.

China (HCA-6.4D) – Survey activity mainly conducted in Prydz Bay. Positioning with DGPS. Two bathymetric maps have been produced : Great Wall Station (1:5 000) and Zhongshan Station (1:25 000). Also a chart on Prydz Bay (1:25 000).

New Zealand (HCA3-6.4E) (Report on behalf of New Zealand by Capt. Kafer, Australia)– Area of interest is the Ross Sea. Multibeam hydrographic surveys have been conducted by NIWA in southern hemisphere summer 2001, with particular emphasis on positioning the coastline and surveying anchorages at Cape Adare, Cape Hallett and Possession Islands.

Plans for the season of 2004 are to undertake another hydrographic survey in the Ross Sea.

INT 65 (1:10M) and INT 900 (1:2M) have already been produced. INT 9006, 9007 and 9008 are being completed. Two additional INT charts are under production (INT 9009 and 9012).

New Zealand (LINZ) has published a “Ross Sea Region Strategy (2003-2012)” document (**HCA3 – INF9**).

Australia (HCA-6.4F) - Surveys have been carried out on an opportunity basis, with the programme driven by research cruise availability. INT 9031 was published in November 2002 (1: 500 000), New Editions of INT 9014 and 9032 were published in November 2002 and March 2003.

Spain (HCA3-6.4G) – INT 9121 was published in April 1998.

UK (Barritt) noted the importance of sound velocity observations, especially for Multi Beam Echo Sounder, and the complex sound velocity regime in polar waters. Germany (Schenke) supported this view, adding that they were using a fixed sounding velocity of 1500 m/s and applying corrections based on real-time sound velocity observations during post-processing.

Rep. of Korea (HCA3-6.4H) – There are no activities related to hydrography/nautical cartography, and no plans at the moment, only research by KORDI through observations (e.g. Earth Science, Biology, Oceanography) at King Sejang Station.

Germany (HCA3-6.4I) – AWI worked on the Weddell Sea and produced several bathymetric maps.

INT charts 9055 (1:500 000) and 9057 (1:200 000) are to be produced by Germany, through a joint program BSH-AWI. Surveys and topography by AWI and chart production by BSH. Publication is planned in 2005.

India (HCA3-6.4J) – In support of INT 9050 and 9051, to be co-produced with Russia, India has carried out hydrographic surveys in the concerned area (India Bay). Proposed activities for the next expedition include determination of coastline and ice limits.

Chile (HCA3-6.4K) – Hydrographic surveys are conducted in any summer period. A review of INT charts produced by Chile, sometimes in cooperation with Argentina and UK, was presented.

Three ENC's have been produced from INT 9155 and two national charts. The IHB (Huet) commented that these were, to his knowledge, the first ENC's ever published in Antarctica.

UK (Barritt) advocated the use of source data diagrams on INT charts, and the population of equivalent M-SREL attributes in addition to CATZOC in ENC's.

France – France hydrographic interest is focused on DUMONT D'URVILLE Sea and the access to TERRE ADELIE where a permanent station is operated.

Four INT charts have been allocated to France. One was published in the beginning of 2003 (INT 9017) and a second one will be issued before the end of 2003 (INT 9016). The two others (INT 9015 and INT 901) are scheduled in 2004.

Greece – Nothing to Report.

The Chair noted that there had been no reports on aids to navigation and nautical publications. He asked for confirmation of what should be done. Is there a need for the IHB to put a list of nautical publications, with résumés, on the IHO Website ?

There was general support for the above. IAATO (Mr. Daniel Beissel) saw an interest in having this information available, in particular concerning tidal data. Knowledge of tide and currents helps in forecasting ice drifts.

Germany (Schenke) mentioned that the Bidston Laboratory (UK) is working on modelling tides in Antarctica. He added that there may be a need to establish a common vertical datum.

Action:

IHB to invite the IHO Tidal Committee to consider ways of improving collection and promulgation of tidal information in Antarctica.

Notices to Mariners – MSI

France noted that there was not much to report on Antarctica in Notices to Mariners, due to the lack of activity there (no lights, no harbour works, etc.)

Chile (Mingram) expressed the need for an international approach to dissemination of Maritime Safety Information.

Spain (Cdr. Fernando Güimil) stated that Antarctic waters come within NAVAREA areas. He further reported that he had noted some concern at the IMO regarding MSI in the Arctic waters, but not the Antarctic waters.

6.4.2 New Techniques, New Equipment

Germany (Schenke) noted that the SSPARS project is considering the deployment of drifting buoys along the circum-Antarctic current to measure soundings (several US research laboratories). Sonar would be 10-15 m underneath the buoy.

Chile (Lt. Enrique Silva) commented that wireless communication will in future allow for transmission of cartographic ENC updates to ships at sea.

Germany (Schenke) mentioned the possible use of LIDAR technique (Airborne laser bathymetry) in Antarctica, despite the high cost. Logistic challenges were discussed.

6.5 REPORT ON S-55/S-59

UK (Barritt) reported on the ongoing review of IHO publications S-55 and S-59. References are CL 23/2003 and 41/2003.

New developments since S-55 was published : Regulation 9 of SOLAS V; Publication of M-2; UN call for Annual Reports on Hydrography status worldwide.

Purpose of S-55. Strategic data for national and international policy makers and resource controllers. Must be informed by analysis of navigational activities and other sea usage. Close liaison is required with IMO, ICS, etc. RHCs have a vital role to play.

Format. Divided into RHC areas. Highlights deficiencies in Hydrographic Surveys, Cartography and MSI. The ultimate objective should be to transition to an IHO layered database on WWW.

S-59. Part I duplicated in M-11, and Part II already available in digital format.

Main points. S-55 to contain strategic global overview. S-59 could be a prototype for a regional data-base.

UK (Barritt) recommended that no further work should be done on updating S-59 in its current format. Instead attention should be focused on the definition of layers with surveys, INT charts (M-11) and ENC's as a minimum. A demonstration was made by the IHB (Mr. Anthony Pharaoh) on layered S-59.

Overlays: 1:10M INT charts, trade routes, INT charts, Hydrographic surveys.

Chile (Mingram) inquired whether "the new S-55 would be sent directly to Ministry of Foreign Affairs?". UK (Barritt) answered that S-55 is intended to be a tool for national Hydrographers, for them to promote Hydrography and possibly raise funds at national level.

France (Le Gouic) noted that S-55 can be a tool to describe to non-IHO Member States the status of Hydrography in their country and to explain why and where there is a need for improvement.

Australia (Kafer) suggested to try reaching some non IHO Member States, particularly in remote areas, through IMO and/or UN. IHB (Maratos) supported this view.

UK (Barritt) asked for a member of HCA to be his point of contact to co-ordinate HCA Members' completion of the S-55 questionnaire for the Antarctic. Chile volunteered to provide a candidate (Capt. Mingram). This was agreed.

Outcome:

- Report by Capt. Barritt was endorsed by the meeting.
- Capt. Mingram (Chile) was appointed HCA contact to Capt. Barritt, as S-55 project manager, to coordinate completion of S-55 questionnaire.

Action:

- *IHB to develop a prototype GIS data base of the future S55, having a chart background base with layers for hydrographic surveys (based on the data in S-59 Part II), INT charts (based on the data in M11), ENC's (based on the ENC coverage description, as on the IHO Website), and RNC's (based on ARCS). This data base will be made available from the HCA page of the IHO Website, for consultation/ comments by HCA Members.*

6.6 ENC PRODUCTION

France (Le Gouic) reported on the setting up of a WEND Task Group to foster ENC production (Chair : Mr. Horst Hecht, Germany). Work is to be based on the INT Chart Scheming. Need for RHCs to be involved. He reminded that CL 43/2003 asked for

corresponding Members from RHCs and suggested that the meeting appoint a representative for the HCA area.

Vice Chair (Capt. Mingram) was proposed by Italy (Lusiani), seconded by India (Badhwar). Capt. Mingram accepted and this was agreed by the meeting.

Outcome:

Capt. Mingram (Chile), Vice Chair of HCA, was appointed HCA corresponding Member to the WEND Task Group.

UK (Webb) reported that they can provide training on ENC production in Spanish language.

Chile (Mingram) reminded that they have produced 3 ENC cells, available to mariners.

7. OBSERVERS REPORTS

7.1 SCAR

The Chair drew attention to the SCAR Report. There were no comments.

7.2 COMNAP

The Chairman read a message of apology for non attendance by a COMNAP representative.

7.3 IMO

Presentation by Mr. Steve SHIPMAN, IHB

On request by IMO, IHO presented to NAV 49 a report on the status of hydrography and nautical charting in remote areas, including Antarctica. An update is to be provided to NAV 50.

Antarctic shipping code: there was no feed back from NAV 49.

IHB (Maratos) mentioned the possibility of IHO establishing a regional committee / commission for the Arctic region, similar to HCA. Another option could be to expand the scope of HCA, so as to include Arctic areas.

IAATO (Landau) mentioned that IAATO Members are having similar discussions. She would favour merging Arctic with Antarctic if the issues are similar and those involved in working with these areas are basically the same individuals. This would avoid the need for additional meetings. In the case of IAATO many of the companies operate in the Arctic and Antarctic.

UK (Barritt) felt that the Committee might become unmanageable with the inclusion of Arctic countries and suggested that the RHCs in the region should be consulted.

Australia (Kafer) suggested that Member States' views be sought on the matter. France (Le Gouic) said that hydrographic issues to be addressed are not the same in Antarctica and Arctic. He felt that the two areas should be dealt with separately. This was supported by Norway (Breivik), Chile (Mingram), Spain (Güimil), India (Badhwar) and Italy (Lusiani).

Following proposal by IHB (Maratos), it was agreed that the IHB would issue a CL on the way ahead for representing the polar regions.

Action:

IHB to issue CL to Member States seeking comments on the concepts of establishing an

RHC for the Arctic Ocean, or absorbing it into the HCA, for focus on remote areas.

UK (Barritt) suggested that a separate issue of IHO contribution to safety of navigation in remote areas world-wide needed to be addressed.

7.4 ATCM Activity Report

The Chair reported that participation in ATCM/26 was a good opportunity for IHO to promote Hydrography at this forum. On this occasion, he presented a paper “Status of Hydrography and Nautical Cartography in Antarctica and Proposals”. As a result, ATCM/26 put forward a Resolution on the need to improve hydrography in Antarctica.

Next ATCM will be in Cape Town, South Africa, on 24 May – 4 June 2004.

The Chair stressed the importance for HCA Member States with Antarctic territories to be represented at ATCM Meetings.

Australia (Kafer) stated that ATCM should be briefed on the risks (loss of human life, environment, etc.) associated with navigating in ill-charted/surveyed areas. IAATO (Landau) supported these views, adding that any papers aimed at improving safety of navigation in Antarctica can only but be helpful.

7.5 IAATO Report

IAATO (Landau) briefed delegates on the 3 papers that IAATO had presented to this meeting. IAATO Membership consists of 58 companies from around the world. There are seven categories of membership which include both ship and land based operators. Nearly all ship operators are under the IAATO umbrella. Less than 50% of Antarctic waters visited by ships (including tourist and government vessels) are uncharted. All experienced IAATO members have their own chart information specific to the places they visit. It is necessary to use a combination of charts in the Antarctic which include the UK British Admiralty Charts, Chilean, Argentine, Russian to navigate with.

The Chair asked: “Are operators aware of the IHO INT Chart Scheme? Can they assist in identifying priorities in INT production?” IAATO (Landau) answered that some ships’ operators are not aware of the INT Chart Scheming. She added that IAATO can surely help in prioritizing INT production. She suggested that IHO prepare a paper on the matter to IAATO.

Action:

IHB to keep IAATO informed of INT Chart Scheme in Antarctica, and request comments on how to best prioritize INT chart and ENC production for the region.

8. ANY OTHER BUSINESS

Impact on Marine Mammals of multibeam systems

Germany (Schenke) informed the meeting that before any German ships using sonar can be deployed in Antarctic waters, the German Federal Environment Agency insists that an assessment of environmental impact on marine mammals be carried out. There are specific restrictions on the use of multibeam systems. This has resulted in frequently interrupted surveys, of little use for charting purposes.

He added that AWI was considering how to reduce the source level of Multibeam Echo Sounder (MBES) noise, to reduce impact on mammals.

He suggested that HCA submit a Resolution forwarding the requirements for high quality nautical charts based on high quality surveys, for safety of navigation; and that there is a need for continuous multibeam surveys in the region.

He also suggested that an action to report this issue to the IMO could help to reduce the restrictions on use of multibeam systems.

Italy (Lusiani) mentioned that SACLANCEN (La Spezia) has conducted studies on the matter in connection with the Ligurian Sanctuary for Whales (Italy – France – Monaco). He felt that the results of these studies could be helpful to AWI.

UK (Barritt) reported that studies are also ongoing in UK on the matter. He would provide AWI with the relevant information.

Action:

IHB to issue CL to Member States, informing them of problems regarding the impact of Multibeam Echo Sounders (MBES) on marine mammals.

9. NEXT MEETING

Italy (Lusiani) proposed to have the next HCA Meeting in conjunction with next EIHC, i.e. in Monaco in 2005. This was supported by China (Dongchen), France (Le Gouic), Korea (Choi) and Norway (Breivik).

Chile (Mingram) favoured an earlier meeting and proposed 2004. Australia (Kafer) agreed, stating that it was important to maintain momentum. This was also supported by Germany (Schenke), Greece (Makridis), India (Badhwar) and Poland (Capt. Czeslaw Dyrz).

UK (Barritt) noted that International Hydrographic Conferences are busy periods for IHB staff and having an HCA Meeting in addition to the EIHC can only add to the workload. This was confirmed by the IHB.

The Chair confirmed that the next HCA meeting would be held in 2004, ideally in conjunction with another IHO meeting.

The venue for the next HCA meeting was then discussed. Greece (Makridis) offered to host the meeting in September 2004, and Australia (Kafer) offered to host the meeting in October 2004 in conjunction with a meeting of the SWPHC. Delegates determined that Greece would be the preferred venue. Therefore the next meeting of the HCA will take place in Greece, in September 2004.

Action:

IHB in conjunction with **Greece** to organize the 4th HCA Meeting in September 2004..

10. CLOSURE

The Chair concluded by thanking participants for their active and positive contribution to this successful meeting. He felt there was room for improving cooperation between HCA Members and invited attendees to move forward and take initiatives, as appropriate, based on what had been agreed at the meeting.

LIST OF ACTIONS RESULTING FROM HCA/3

No.	Item	Subject	Action
1	3	IHB to forward to South Africa the comments on the use of satellite imagery for INT 9056, which have been received from CSPCWG.	IHB
2	3	Noting the difficulties of placing and maintaining structures in Antarctica, IHB to consult SCAR, COMNAP and IAATO to obtain views of ship operators on priorities for terrestrial aids to navigation.	IHB
3	3	<ul style="list-style-type: none"> • HCA Members to provide IHB with a list of their publications on Antarctic waters, with a brief résumé of their contents. • IHB to then maintain a register of these publications on the HCA page of the IHO Website. 	HCA Members IHB
4	3	<ul style="list-style-type: none"> • IHB to contact SCAR, asking for confirmation of the SCAR's need for tidal data and details on the requested data. • IHB to then monitor this issue and, possibly, ask HCA Members to forward tidal data to SCAR. 	IHB IHB
5	3	Noting IAATO concern over the entry of new ship operators into Antarctica, with no experience of navigational conditions, and sometimes with inadequate equipment, HCA Members to maintain communication with IAATO and COMNAP to assist to encourage best practice.	HCA Members
6	3	IHB to include in the HCA page of the IHO website links to other websites giving information on activities in Antarctica.	IHB
7	4	<ul style="list-style-type: none"> • IHB to circulate the revised Statutes, requesting signatures by appropriate authorities. • IHB to then keep the original copy of the Statutes. 	IHB IHB
8	6.1	Noting that INT Charts 9112 (UK producer) and 9121 (Spain producer), both include a plan of Half Moon Island – “Isla de la Media Luna”, in Spanish – at 1:25,000, which is against the INT Chart concept, the IHB to invite UKHO and IHM to liaise to resolve the duplication issue, further noting that, as INT 9121 was published in 1998 and that INT 9112 is planned for the future, dropping this plan from INT 9112 could be an option to solve the problem.	IHB, UKHO and IHM
9	6.2	IHB to liaise with IAATO to possibly find a mechanism for hydrographic surveys to be carried in IAATO ships of opportunity to conduct hydrographic activities in Antarctica.	IHB
10	6.3.1	<ul style="list-style-type: none"> • GEBCO (Dr. Schenke) to provide the IHB with a list of scientific institutions which would be asked to prepare and submit name proposals to GEBCO/SCUFN when they discover new undersea features. • IHB to then issue a CL, asking Member States to contact scientific institutions in their countries, as appropriate, and provide them with relevant information (Undersea feature name proposal form, Publication B-6, Gazetteer, etc.). 	GEBCO IHB
11	6.3.2	IHB to draft, in liaison with the IOC Secretariat and the prospective IBCSO Chairman (Dr. Schenke), a proposal to be submitted to the IOC Executive Council (June 2004) and the IHO Member States on improving cooperation and collaboration in support of ocean mapping projects, e.g. GEBCO and IBCs.	IHB

No.	Item	Subject	Action
12	6.4.1	IHB to invite the IHO Tidal Committee to consider ways of improving collection and promulgation of tidal information in Antarctica.	IHB
13	6.5	IHB to develop a prototype data base of the future S-55, based on a chart background with layers for hydrographic surveys (based on the data in S-59 Part II), INT charts (based on the data in M-11), ENC's (based on the ENC coverage description, as on the IHO Website), and RNC's (based on ARCS). This data base to be made available from the HCA page of the IHO Website, for consultation/ comments by HCA Members.	IHB
14	7.3	IHB to issue CL to Member States seeking comments on the concepts of establishing an RHC for the Arctic Ocean, or absorbing it into the HCA, for focus on remote areas	IHB
15	7.5	IHB to keep IAATO informed of INT Chart Scheme in Antarctica, and request comments on how to best prioritize INT chart and ENC production for the region. .	IHB
16	8	IHB to issue CL to Member States, informing them of problems regarding the impact of Multibeam Echo Sounders (MBES) on marine mammals	IHB
17	9	IHB in conjunction with Greece to organize the 4 th HCA Meeting in September 2004	IHB GREECE

LIST OF PARTICIPANTS

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LIST OF DOCUMENTS

HCA3-1A rev.6	List of Documents
HCA3-1B rev.3	List of Participants
HCA3-2A	Agenda
HCA3-2B	Annotated Agenda
HCA3-2C	Timetable
HCA3-4A rev.1	Status of Actions List from HCA/2
HCA3-6.1A rev.1	Updated INT Chart Scheme for Region M "Antarctica"
HCA3-6.3A rev.2	GEBCO Gazetteer of Undersea Feature Names for Region M "Antarctica"
HCA3-6.3B	Proposal for the preparation of a new International Bathymetric Chart of the Southern Ocean (IBCSO)
HCA3-6.3C	Report about of the GEBCO Centenary Conference and the new Edition of the GEBCO Digital Atlas Centenary Edition (GDA CE)
HCA3-6.4A	National Report by Norway
HCA3-6.4B	National Report by UK
HCA3-6.4C	National Report by Italy
HCA3-6.4D	National Report by China
HCA3-6.4E	National Report by New Zealand
HCA3-6.4F	National Report by Australia
HCA3-6.4G	National Report by Spain
HCA3-6.4H	National Report by Republic of Korea
HCA3-6.4I	National Report by Germany
HCA3-6.4J	National Report by India
HCA3-6.4K	National Report by Chile
HCA3-6.5A	Report on S-59
HCA3-7.1A	SCAR Expert Group on Geospatial Information (GIG) - Report on 2000 - 2002 Activities

HCA3-7.5A	IAATO Report
Information Papers	
HCA3-INF1	Minutes of the 2 nd HCA Meeting, South Africa, 2001
HCA3-INF2	HCA Statutes as approved by the 2 nd HCA Meeting in 2001
HCA3-INF3	Revised Technical Resolution T 1.3 as approved by IHC-XVI, 2002
HCA3-INF4	IHO Report to IMO on Remote Areas
HCA3-INF5	IHO Report to ATCM-XXVI
HCA3-INF6	Resolution 3 (2003) of ATCM-XXVI on Co-operation in Hydrographic Survey and Charting of Antarctic Waters
HCA3-INF7	Report to ATCM-XXVI of the International Association of Antarctica Tour Operators (IAATO) , 2002-2003
HCA3-INF8	IAATO Overview of Antarctic Tourism
HCA3-INF9	Ross Sea Region Strategy (NZ)
HCA3-INF10	Extract from NAV 49 Report (IMO) on Hydrography and Charting in Remote Areas
HCA3-INF11	Restrictions on the use of multibeam systems in Antarctic waters, decreed by the German Federal Environmental Agency

AGENDA

- 1.- Opening Remarks.
- 2.- Approval of the Agenda
- 3.- Election of Chairman and Vice-Chairman
- 4.- Review of actions from the previous meeting
- 5.- Review Statutes of the Committee and pending signatures.
- 6.- HCA Activities in the light of the IHO Work Program
 - 6.1 Objective 1.1.1 Implementation of the INT chart scheme: progress since last meeting and any resultant modifications to the scheme, Pub.M-11.
 - 6.2 Objective 1.1.2 Bilateral and Regional cooperation agreements.
(Cooperative work, training and education and exchange of hydrographic information)
 - 6.3 Objective 1.2.1 Interaction with IOC.
 - 6.3.1 GEBCO Project (SCUFN and SCDB Sub-Committees)
 - 6.3.2 New IOC IBCSO Project.
 - 6.4 Objective 2.1.1 Hydrographic surveying, nautical charting, nautical publications and information status.
 - 6.4.1 Presentation of National Reports on recent activities and future plans.
 - 6.4.2 New techniques and equipment in hydrography and oceanography
 - 6.4.3 Charting Issues: source data, use of satellite imagery, etc
 - 6.4.4 Significant new navigational activities.
 - 6.5 Task 3.1.1 Review Publications S-59 and M-11 (see also 6.1)
 - 6.6 Task 3.1.2 Progress in national ENC production, training, testing and distribution
- 7.- Relevant International Organizations Report.
 - 7.1 SCAR Report, including WGGI and ADGI
 - 7.2 COMNAP Report
 - 7.3 IMO activity Report (Antarctic Shipping Code)
 - 7.4 ATCM activity report
 - 7.5 IAATO report
- 8.- Any other business.
- 9.- Time and Place of next Meeting
- 10.- Closure

**STATUTES OF THE IHO HYDROGRAPHIC COMMITTEE ON ANTARCTICA
(HCA)**

(revised at the ~~2nd HCA Meeting, Simon's Town, South Africa, 13-14 March 2001~~ 3rd HCA Meeting, IHB, Monaco, 8-10 September 2003)

Article 1

GENERAL

- 1.1. The IHO Hydrographic Committee on Antarctica (hereinafter referred to as "Committee") is a special Hydrographic Commission of the International Hydrographic Organisation (IHO). The Committee is established in conformity with Administrative Resolution T1.3 of the IHO "Establishment of Regional Hydrographic Commissions (RHC)" (Appendix A) and shall be governed according to these statutes.
- 1.2. The Committee is responsible for hydrographic surveying and nautical charting matters in International Region M. The geographic limits of this region are illustrated at Appendix B.

Article 2

MEMBERSHIP

- 2.1. Membership of the Committee is open to any IHO Member State whose government has acceded to the Antarctic Treaty and which contributes resources and/or data to IHO INT Chart coverage of Region M (see Appendix B), and which becomes a signatory to the Statutes of the Committee.
- 2.2. Associate Membership is open to any non-IHO Member State whose government has acceded to the Antarctic Treaty and which contributes resources and/or data to IHO INT chart coverage of Region M, and which becomes a signatory to the Statutes of the Committee. Associate Members may take part in the discussions but shall not have voting rights, except as contained in Articles 4.2 and 4.3.
- 2.3. Observer status in the Committee is open to any other IHO Member State, to the representatives of any national or international organisation, and to individual experts, having professional involvement in hydrographic surveying or nautical charting in Region M either by contributing to those activities, or by providing support to those activities, or as users of derived products. The participation of Observers in any activity of the Committee will be subject to the prior approval of the Chairman of the Committee. The Observers may take part in the discussions but shall not have voting rights.

Article 3

AIMS

The aims of the Committee, which is an integral part of the IHO, shall be:

- 3.1. To promote technical co-operation in the domain of hydrographic surveying, marine cartography, and nautical information within the region.
- 3.2. To stimulate the Members, Associate Members and Observers forming the Committee to widen hydrographic activity in the region in accordance with Antarctic Treaty Consultative Meeting (ATCM) Resolution ~~1 of 1995~~ 3 of 2003 (~~attached at~~ Appendix C), and to encourage them to seek technical advice and assistance from the IHB in establishing and strengthening their hydrographic capabilities in order to promote safe navigation in the region.
- 3.3. To facilitate the exchange of information between Hydrographic Authorities and with other organisations concerning surveys, research or scientific, technical and operational developments, to aid in the planning and organisation of hydrographic activities in the widest sense of the term.
- 3.4. To encourage Members, Associate Members and Observers forming the Committee to participate actively, of their own free will, on all possible occasions - whether in the form of advice or of assistance - in those hydrographic programmes requiring concerted action, but without prejudice to or interference with their national activities.
- 3.5. To examine the implications, in its area of interest, of matters of general interest with which the IHO is concerned, avoiding any interference with the prerogatives of the International Hydrographic Bureau (IHB) and of any other Regional Commissions set up by the IHO.
- 3.6. To implement the INT chart scheme for the region and to monitor its suitability.
- 3.7. To define the needs for new surveys and if necessary to develop co-operative approaches to meet those needs.
- 3.8. To facilitate the provision and wide dissemination of information for scientific purposes (for example through the GEBCO programme).
- 3.9. To carry out studies as a Working Group of the IHO, when considered appropriate.
- 3.10. To develop an annual report of the status and plans for hydrographic surveys in the region, including updating and amplifying relevant IHO Publications ~~S-59~~.
- 3.11. The Committee may appoint working groups of Members and Associate Members interested in particular projects with the object of examining and executing such projects.

Article 4

CONFERENCES

- 4.1. The Committee shall meet in plenary conference in the country of one of its Members or Associate Members, at least twice between two successive ordinary sessions of the International Hydrographic Conference (IHC).
- 4.2. At the end of each conference the Members and Associate Members desirous of hosting the following conference shall put forward their candidatures. Priority shall be given to a country that has not yet hosted a conference, or to the one that did so the

longest time ago. In cases of equal priority a vote shall be held, the decision being taken by a simple majority of Members and Associate Members present.

- 4.3. If it is in the interest of the Committee, and agreed upon by a simple majority of Members and Associate Members, an alternative venue may be selected.
- 4.4. Members and Associate Members shall be represented at conferences by heads of Hydrographic Services or their nominees or, where such services do not exist, by heads of national authorities responsible for hydrography and navigation. They may be accompanied by advisors, but it is most desirable that their number be kept to a minimum.
- 4.5. The presence of a third (1/3) of the Members of the Committee shall constitute a quorum at all conferences.

Article 5

CHAIRMAN, VICE-CHAIRMAN AND SECRETARIAT

- 5.1. The activities of the Committee shall be conducted by the Chairman, who shall be a Director of the IHB appointed by the President of the Directing Committee of the IHB. The Chairman shall also preside over the conference.
- 5.2. The Chairman shall be assisted ~~at the conference~~ by a Vice-Chairman from a Member State of the Committee. The Vice-Chairman shall be elected at the beginning of each Conference by a simple majority of those Members present. ~~from the nation which hosts the conference.~~
- 5.3. The IHB shall provide the Secretariat for the Committee regarding all questions to be dealt with by correspondence. The Chairman will prepare a Provisional Agenda for the next conference and will present, as the first item, his report on the activities of the Committee since the last conference.
- 5.4. The Chairman will report the activities and future plans of the Committee to the relevant sessions of the IHC. Between sessions, reports of studies or other activities, which may be considered of general interest to all Member States, should be reported through the Chairman to the IHB for general dissemination.

Article 6

ORGANISATION OF CONFERENCES

- 6.1. The Chairman shall issue invitations at least one year before the conference.
- 6.2. Proposals to be included in the Agenda of a conference shall be sent to the Chairman at least four months before the date fixed for the opening of the conference.
- 6.3. The Chairman shall prepare the Provisional Agenda in consultation with the Vice-Chairman and host nation, and forward it to the participants at least eight weeks before the opening of the conference.

- 6.4. The Chairman shall be responsible for the organisation of the conference, in conjunction with the Vice-Chairman and host nation.
- 6.5. The host nation will provide the Rapporteur and the secretarial facilities for the conference.
- 6.6. The host nation shall be responsible for the expenses of the conference except those expenses described in Article 6.8 below.
- 6.7. The host nation will assist with the arrangement of authorisations and visas, so as to facilitate attendance at the conference.
- 6.8. All expenses connected with the participation of the Chairman and the delegates in the conference shall be defrayed by their respective organisations.

Article 7

CONFERENCE AGENDA

- 7.1. The Agenda shall be adopted by the Committee at the beginning of each conference.
- 7.2. The Committee may modify in the course of the conference the order in which Agenda items are to be discussed.

Article 8

DECISIONS AND RESOLUTIONS

- 8.1. Decisions taken during each conference should be prepared in written form by the Chairman and presented the next day to the participants present.
- 8.2. At the end of the conference, the Chairman shall circulate the decisions taken during the conference. These decisions shall be adopted by means of a simple majority of the Members present. Votes in favour shall be indicated by a show of hands unless a secret ballot is requested by any Member present. However, when the Chairman, or a majority of Members present, decide that the decision so requires, the decision shall be made by correspondence. Such decision will be approved by a simple majority of the Members who have responded by the due date, provided that the number of votes received is at least equal to the quorum indicated at Article 4.5.
- 8.3. Only Members are entitled to vote, each having the right to one vote. The sole exception to this rule is to be found at Articles 4.2 and 4.3.
- 8.4. All decisions become operative immediately, except in the case where a Member objects and asks that the matter be referred to the IHO. However, such a procedure shall not be applicable to the provisions of Articles 4.2 and 4.3, concerning the hosting of conferences.
- 8.5. The Chairman shall dispatch within one month of the close of the conference a copy of the Summary Report containing the discussions, decisions and recommendations of the conference for verification or comment, to each Member, Associate Member and Observer. Comments are to reach the Chairman within one month of the receipt of the

Summary Report. The final version of the Minutes shall be forwarded within four months of the close of the Conference.

- 8.6. Any decision, which may be of interest to the Member States of the IHO as a whole, shall be brought to the attention of the IHB. This fact shall be mentioned as part of the text of the decisions reached.

Article 9

EXTRAORDINARY MEETINGS

- 9.1. The Chairman may call for a meeting of the Members and Associate Members of the Committee when their representatives are assembled for a session of the IHC, inviting others qualified to attend as Observers.
- 9.2. In the case of urgent matters, which cannot be treated by correspondence and which cannot be postponed until the next conference, the Chairman, or a majority decision of the conference may request that an extraordinary meeting be held in a place considered most appropriate.
- 9.3. The provisions applicable to the conference shall apply to all extraordinary meetings.
- 9.4. When these extraordinary meetings do not include all Members, the decisions reached shall be reported by correspondence.

Article 10

STATUTES

- 10.1. The IHB shall be the custodian of these Statutes.
- 10.2. Members of the Committee may propose amendments to the ~~present~~ Statutes. The Chairman shall submit the proposal(s) by correspondence to all Members for voting. A simple majority of Members of Committee is required for approval. If an amendment is approved, the Chairman will update the Statutes and circulate them to all Members, Associate Members and Observers.
- 10.3 Updated versions of IHO and ATCM resolutions will be added to the Statutes, as appropriate, by the Chairman without the approval of the Members of the Committee. These changes would not constitute formal amendments to the Statutes.

Article 11

LANGUAGE OF THE COMMITTEE

- 11.1. The ~~official working~~ language of the Committee shall be English.

Approved by the Committee,
~~Simon's Town, South Africa, IHB, Monaco,~~

~~March 2001~~September 2003 |

Appendices:

- A. Resolution T 1.3 of the IHO [Adopted by the XVI IHC, ~~1997~~2002] |
- B. Geographic Limits of IHO INT Chart Region M
- C. Resolution of the Antarctic Treaty Consultative Meeting ~~1995~~2003 |

Signature Page**IHO HYDROGRAPHIC COMMITTEE ON ANTARCTICA (HCA)****MEMBERS**

COUNTRY	SIGNATORY	DATE OF SIGNATURE
Argentina		
Australia		
Brazil		
Chile		
China		
Ecuador		
France		
Germany		
Greece		
India		
Italy		
Japan		

COUNTRY	SIGNATORY	DATE OF SIGNATURE	
Korea (Rep. of)			
New Zealand			
Norway			
Peru			
<u>Poland</u>			
Russian Federation			
South Africa			
Spain			
Ukraine			
United Kingdom			
USA			
Uruguay			

RESOLUTION T1.3 OF THE IHO
AS ADOPTED BY THE XVITH INTERNATIONAL HYDROGRAPHIC
CONFERENCE ~~1997~~2002

T 1.3 ESTABLISHMENT OF REGIONAL HYDROGRAPHIC COMMISSIONS (RHC)

1.- It is resolved that the IHB shall encourage Member States having common regional interests in data collecting or nautical charting to form Regional Hydrographic Commissions (RHC) to cooperate in the undertaking of surveys and other projects. As part of IHO, the RHC shall complement the work of the Bureau.

2.- RHCs are intended to provide, in pursuance of the resolutions and recommendations of the IHO, regional co-ordination with regard to nautical information, hydrographic surveys, production of nautical charts and documents, training, technical cooperation and hydrographic capacity building projects. They (RHC) should enable the exchange of information and consultation between the hydrographic services concerned. Geographically adjacent RHCs should liaise with each other.

3.- RHCs shall be properly constituted and have activities in line with the objectives of the IHO as described in Article II of the Convention on the IHO and in accordance with the approved IHO Work Programme. Geographical areas of the RHC will normally coincide with INT chart regions, modified as appropriate to meet regional requirements and special circumstances. There are special provisions for Region M (Antarctica) because of its special status.

4.- RHC membership may include full members, associate members, and observers, all willing to contribute to the safety of navigation in the fields of hydrography, nautical charting, nautical information or navigational warnings in the region concerned. The roles of full members, associated members and observers will be defined by each RHC.

Full membership is reserved for IHO Member States within the region who sign the statutes of the RHC.

Associate membership is available to other IHO Members States or States of the region who are non-IHO members, both being signatories of the statutes of the RHC.

Other States and International Organizations active in the region concerned may be invited by the RHC to participate as observers.

The invitation procedures should be established by each RHC.

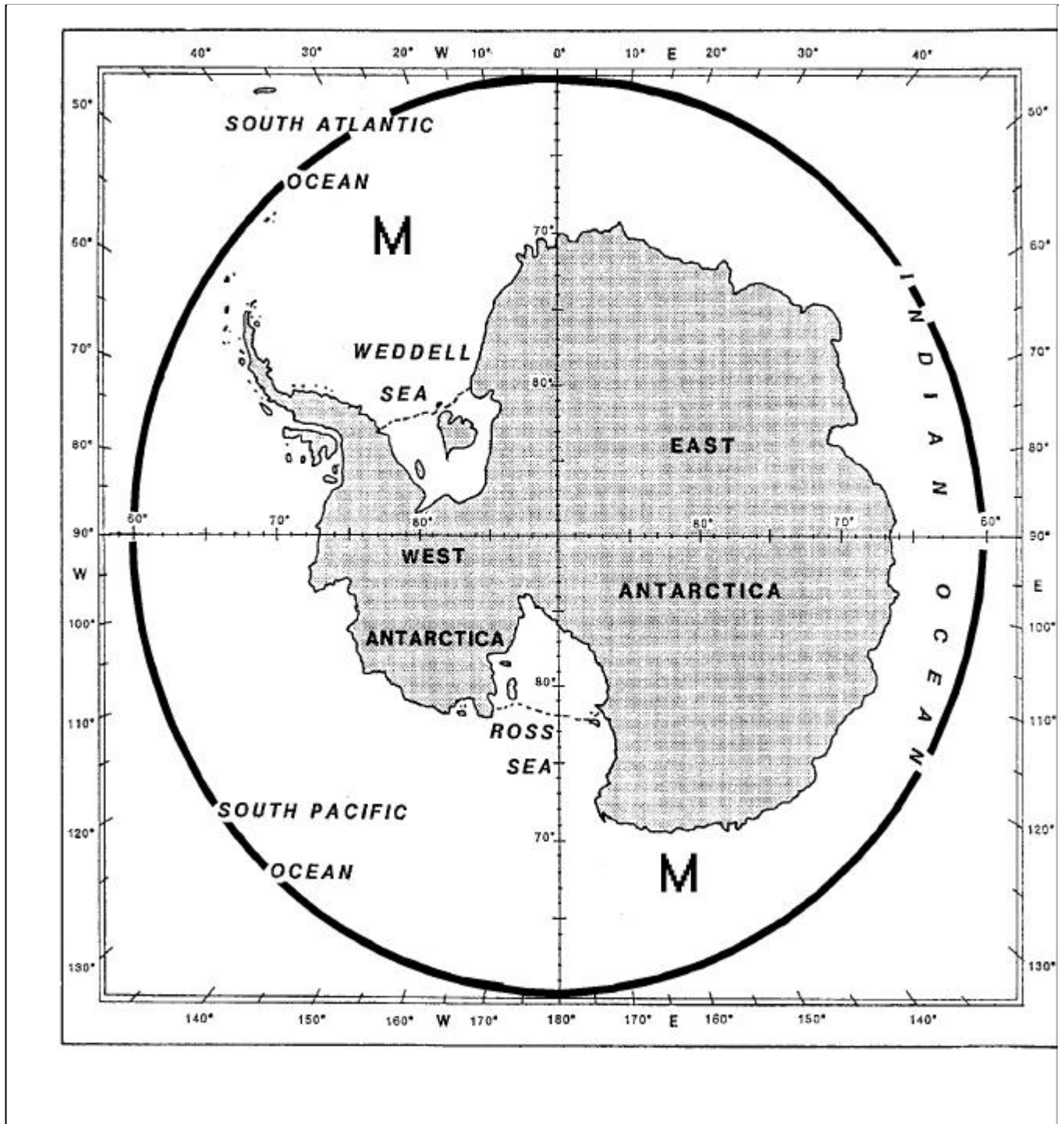
5.- The working languages used by the RHC shall be agreed upon by their members and designated to ensure the best communication between participants. The reports and IHO documents relating to RHC activities shall be in at least one of the official languages of the IHO. For correspondence with the Bureau, one of the official languages of the IHO shall be used.

6.- A representative of the Bureau shall be invited to attend meetings of RHCs.

6bis.- RHCs shall assess regularly the hydrographic capacity and requirements within their region.

7.- Chairs of RHCs shall report to the I.H. Conference on RHC activities, hydrographic capacity and requirements within their region, future plans and the agreed key targets that support RHC tasks detailed in the IHO Work Programme. The Chairs of RHC's shall also submit an annual report to the IHB indicating progress made against the agreed key targets in the IHO Work Programme for general dissemination. Between sessions of the IHC, reports of studies or other activities, which may be considered of general interest to all IHO Member States, shall be sent by Chairs of RHCs to the Bureau for general dissemination.

GEOGRAPHIC LIMITS OF IHO INT CHART REGION M



XXVI ATCM - Resolution 3 (2003)Co-operation in Hydrographic Survey and Charting of Antarctic Waters

The Representatives,

Noting that, in response to Recommendation XV-19 and Resolution 1 (1995), the International Hydrographic Organisation (IHO) has established, amongst its Member States, a Hydrographic Committee on Antarctica (HCA) with the aim of co-ordinating hydrographic survey in the region and producing international nautical charts within the standards of the IHO;

Welcoming the report introduced by the Director of the IHO on progress that is being made by the HCA in the production of the international (INT) scheme of nautical charts for Antarctic waters, though noting that substantial further works remains to be done;

Recalling that the INT chart scheme for Antarctica has been agreed by IHO Member States and that a number of them have volunteered to assist with chart production;

Recognising that the HCA routinely liaises with SCAR in the support of scientific research requiring hydrographic products;

Noting also the valuable contribution to the INT chart scheme by SCAR, COMNAP and IAATO;

Noting further the entry into force of a revised version of Chapter V of the Convention for the Safety of Life at Sea on 1 July 2002 and in particular its Regulation 9 on Hydrographic Services;

Cognisant of the importance of accurate and up-to-date nautical charts as an essential aid to the safety of navigation in Antarctic waters;

Recommend that:

1. All Consultative Parties with a hydrographic surveying and charting capability in Antarctic waters encourage their national authorities to redouble their efforts to:
 - Co-ordinate their hydrographic surveying and charting activities through the IHO's Hydrographic Committee on Antarctica;
 - Support and contribute to the ongoing development of the INT chart scheme for Antarctic waters agreed by the IHO;
 - Promote the international nature of their Antarctic activities particularly when seeking national support for hydrographic surveying and charting priorities.
2. The IHO Hydrographic Committee on Antarctica continue its endeavours to achieve comprehensive, up-to-date coverage of hydrographic charting and chart production through the INT scheme for Antarctic waters;

The item on Co-operation in Hydrographic Surveying and Charting of Antarctic Waters be again included in the agenda of the XXVII ATCM.

LIST OF ACRONYMS

ARCS	Admiralty Raster Chart Service (UKHO)
ATCM	Antarctic Treaty Consultative Meeting
AWI	Alfred Wegener Institute (Germany)
BSH	Bundesamt für Seeschifffahrt und Hydrographie (Germany)
CATZOC	Category of Zones of Confidence (IHO)
CBC	Capacity Building Committee (IHO)
CHRIS	Committee on Hydrographic Requirements for Information Systems (IHO)
CL	Circular Letter
COMNAP	Council of Managers of National Antarctic Programmes
CSPCWG	Chart Specification and Paper Chart Working Group (IHO)
DGPS	Differential Global Positioning System
ECDIS	Electronic Chart Display and Information System
EIHC	Extraordinary International Hydrographic Conference (IHO)
ENC	Electronic Navigational Chart
GDA	GEBCO Digital Atlas (IHO-IOC)
GEBCO	General Bathymetric Chart of the Oceans (IHO-IOC)
GIS	Geographic Information System
HCA	Hydrographic Committee on Antarctica (IHO)
HO	Hydrographic Office
IAATO	International Association of Antarctic Tour Operators
IASC	International Arctic Scientific Committee
IBC	International Bathymetric Chart
IBCAO	International Bathymetric Chart of the Arctic Ocean (IOC-IHO-IASC)
IBCSO	International Bathymetric Chart of the Southern Ocean (IOC-IHO-SCAR)
ICS	International Chamber of Shipping

IHB	International Hydrographic Bureau
IHO	International Hydrographic Organization
IMO	International Maritime Organization
INT	INTERNATIONAL (Charts) (IHO)
IOC	Intergovernmental Oceanographic Commission
LIDAR	LIght Detection And Ranging
LINZ	Land Information New Zealand
MBES	Multi-Beam Echo-Sounder
MS	Member State
MSI	Maritime Safety Information
M-SREL	Meta Object Classes – Survey Reliability (IHO)
NAV	Sub-committee on Navigation (IMO)
NIWA	National Institute of Water and Atmospheric Research (New Zealand)
RHC	Regional Hydrographic Commission (IHO)
RNC	Raster Navigational Chart
SACLANTCEN	SACLANT Undersea Research Centre (NATO)
SCAR	Scientific Committee on Antarctic Research
SOLAS	Safety of Life at Sea Convention (IMO)
SSPARS	Seafloor Sounding in Polar And Remote Regions
SWPHC	South West Pacific Hydrographic Commission (IHO)
TR	Technical Resolution
UK	United Kingdom
UKHO	United Kingdom Hydrographic Office
UN	United Nations
VTS	Vessel Traffic Service
WEND	Worldwide Electronic Navigational Chart Data Base (IHO)
WG	Working Group

WGS	World Geodetic System
WWW	World Wide Web

