IHO HYDROGRAPHIC COMMITTEE ON ANTARCTICA (HCA)

2nd HCA Meeting, Simon's Town, South Africa, 13-14 March 2001

FINAL MINUTES

Notes:1)The paragraph numbering is the same as in the agenda (Annex C).2)A list of acronyms used in these minutes is in Annex G.

1. **Opening Remarks**

The meeting was hosted by Captain L REEDER, Hydrographer of the South African Navy. RAdm Neil GUY was Chairman and also represented the IHB. Delegates from Argentina, Australia, Chile, China, France, Italy, Norway, South Africa and the United Kingdom attended. A list of Participants is in Annex A. Documents of the meeting are listed in Annex B.

2. Approval of the Agenda (HCA/2/2rev3)

The Agenda was approved with the addition of the following:

- Item 3 Replace '2000' with '1998'.
 - 5.5 Replace 'Chile' with 'Australia'.
 - 5.6 Italy Report will include Agenda Item 19.
 - 5.9 Argentina's Report
 - 5.10 China's Report
 - 6 Maritime Safety Information-Marine Information Objects (MIO).
 - 7.2 Include 'Update of South African INT Chart Scheme'.
 - 11 Correction 'ASDI' to read 'AGDI.
 - 18 Include South Africa.
 - 19 See Agenda item 5.6.
 - 21 Add Cooperation in surveys, charting, instruction, international organizations and exchange of data.

A revised Agenda is in Annex C.

3. Matters Arising (HCA/2/3)

The Chairman was unable to report on all the outstanding items from the last meeting as he had only very recently taken over as Chairman. This was due to the resignation of a Director of the IHB who had been the previous Chairman.

It would appear that on the Action List Items 3 and 4 had been attended to. Items 14 and 22 were ongoing, Items 5, 9, 10, 13, 16, 17, and 21 would be followed up by the IHB, Item 11 would be followed up by Italy, correspondence would be entered into over Items 7, 8, 12, and 20, and Items 6, and 15 were not done.

No further matters arose from the last Meeting or from the Action List (HCA/2/3.)

Action: The IHB to investigate the outstanding issues from AHC/1 and to attend to them.

4. Statutes (HCA/2/4/1-HCA/2/4/3)

After much discussion the Statutes were amended (Annex D) and the IHB is to circulate the amended Statutes to HCA Member States for signature.

The Amendments are as follows:

Article 2.2 last line 'And' to become 'and'

Article 2.3 first line 'States' to become 'State''

- Article 8.2 sixth line to read 'made by the Members of the Committee by correspondence"
- Article 8.5 from the third line to read '....to each Member, Associate Member and Observer. Comments are to reach the Chairman within one month of the receipt of the Summary Report.'
- Article 10.2 to be replaced with '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 the Members of the 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.

Article 10.3 deleted.

Action: IHB to circulate the amended Statutes to HCA members (IHO) for signature.

UK requested confirmation of current membership of the Committee. The Chairman agreed to circulate this with the report of the meeting.

Action: Chairman to circulate a list of HCA members with the report.

5. National Reports (HCA/2/5.1-HCA/2/5.10)

National Reports were presented or updated at the Meeting.

In addition National Delegates commented as follows:

Chile has received much support from the UKHO with their INT Chart Series. Recently, a new set of aerial photograms have been provided by the UKHO to continue the compilation that ceased in 1998 due to lack of this type of information.

Italy requested that Chart 884 be added to the INT Chart List and commented that the area of this chart was where their survey efforts were currently concentrated. They handed out a sample of their first ENC in Antarctic waters (INT 9005).

UKHO's offer to produce Chart No 908 (Production date 2002) was accepted. UKHO indicated that, as requested by the IHB, the production dates for the following charts were 907 (2000), 9109 (1999), 9153 (1999) and 9158 (2001).

South Africa and Germany would resolve the responsibility for the production of 9056. Australia requested that INT Chart No 74 (S-59 page 1.14) be included in Region M of IHO Publication M11. They emphasised their reliance on ships of opportunity for advancing their surveying efforts in the region. Action: HCA members to provide the IHB with updates on the ENC/RNC production in the region

Action: South Africa and Germany to resolve the responsibility for production of INT 9056

Action: IHB to consider the inclusion of the Italian chart 884 and INT 74 (Australia) in M-11, Region M.

6. Significant New Navigational Activities (HCA/2/6)

The establishment of a new IHO/IEC Harmonisation Group on Marine Information Objects was noted (previously Agenda item 20). Although this Group would concentrate on ECDIS related matters it was assuming responsibility for all MIO which was an area of interest to the IHO. It was of significance to the meeting as MIO included objects such as ice and other oceanographic phenomena. The Committee would be kept advised of developments within this WG.

Action: The IHB to contact both SCAR and COMNAP in regard to the positioning of aids to navigation in the Antarctic.(See also Agenda Items 10 &13)

7. Review of S-59 and M-11 (HCA/2/7.1, HCA/2/7B)

The Status of surveys in the Antarctic Region, as reflected in S-59 was considered and noted by the Meeting. There were no corrections but comments were submitted by France and Italy (HCA/2/7.1). There was also a document on the updates to INT Chart Scheme for Region M, as in M-11.

South Africa requested that the IHO Chart Standardization Committee be requested to consider a relaxation of the colours used in certain Antarctic areas to allow for the continued use of satellite imagery for charting in Antarctica. An example was handed to the IHB who would forward it to the CSC.

Action: HCA members to advise the IHB of any updates to \$59 and M-11 (Region M).

Action: IHB to forward a copy of the South African Chart to the CSC for comment.

8. Status of Nautical Publications in the Antarctic Region

It was noted that there was a CHRIS WG (SNPWG) which was developing guidelines for the preparation of nautical publications both in a digital format compatible with ECDIS and secondly in paper and digital formats as stand-alone publications. CHRIS was awaiting their Report. The need for comprehensive publications was stressed especially in view of the increase in eco-tourism in the region.

Australia stated that while they did not have a dedicated Antarctic Section they were preparing a Mariners Handbook.

The UKHO drew attention to their Antarctic Pilot which they regarded as being as comprehensive as they could make it and also their List of Lights, Volumes D, G, and K which cover the area. In addition a digital tidal product called 'TotalTide' would take over from the present digital version 'called 'TideCalc'.

Italy and Norway reported that they did not have any publications of the region.

South Africa reported that their Sailing Directions Volume 3 had a section dealing with ice navigation.

Chile had not produced any new publications but were preparing 'guidelines' for piloting in Antarctica. These were based on the experience of their pilots and the revision of its content should be finished by the end of this year, in order to print a new edition in 2002. The current edition of their 'Guidelines' for Antarctica was published in both English and Spanish.

Argentina's new edition on Antarctica would be available in the middle of 2001.

China reported that, at this stage, they were not issuing publications of Antarctica.

Various ways of promoting the existence of these publications were Discussed.

Action: The IHB to investigate whether it is possible to maintain a register on it's website, listing all the publications available.

Action: HCA Members to forward to the IHB a list of their publications covering Antarctic waters with a brief resumé of their contents.

9. Limits in the Oceans and Seas IHO Publication S-23 (HCA/2/9.1-HCA/2/9.3)

IHO Special Publication S-23, Chapter 10, was presented to the Meeting, by the IHB, for the Meeting's comments. Although the comments on this Chapter were being dealt with in detail by correspondence, this Chapter was discussed in general terms especially with regard to the limits of the various State responsibility.

Australia commented on the limits of the Southern Ocean. The Australian Government regarded the waters on it's southern coast as being part of the Southern Ocean and questioned the limit of that Ocean at 60° S, as referred to in S-23. However, IHB CL 45/1999 clearly reported on the approval by IHO Member States of the name 'Southern Ocean' with its northern limit at 60° S.

France indicated that they had contacted the French Southern Territories Administration for the adequate limits of "Mer Dumont D'Urville", and confirmed that they were against the systematic use of English generic terms instead of the most ancient used toponymic names [see recommendation n° 3 of SCAR (Cambridge, 1996)]. Therefore the name "Mer Dumont D'Urville" should not be changed in S-23 in "Dumont D'Urville Sea". The same should apply to the other non-English original names in Antarctica.

The UKHO drew attention to the need to define the charting responsibility limits between Chile and the UK in the Weddell Sea and requested that in future graphics be provided when chapters of S-23 were distributed for comment.

It should be noted that the IHB was endeavouring to publish the new edition of S-23 during 2002.

Action: The UKHO to send comments on the limits of the Weddell Sea to the IHB

Action: HCA members to send written comments on S-23, Chapter 10, to the IHB.

10. Scientific Committee on Antarctic Research (SCAR) (HCA/2/10 HCA/2/10.2)

Mr Richard Wonnacott presented, on behalf of Mr Glenn Johnstone who was unable to attend, the SCAR, and Antarctic Geographic Data Integration (ADGI) Reports. In addition he reported on the Working Group on Geodesy and Geographic Information(WG-GGI) Programme In the presentation he highlighted the following:

The WG-GGI was established in 1958 six months after the establishment of SCAR. SCAR/ WG-GGI activities included the Geodetic Infrastructure in Antarctic Program (GIANT) and the Geographic Information Program (GIP) included permanent observations, GPS epoch campaigns, physical geodesy, GLONASS evaluation, DGPS base stations, remote geodetic observations and access to information. Of particular interest to the IHO was the tidal gauge data. The Project leaders were Kazuo Shibuya and John Manning. The GIP had a number of projects including the standardization of activities in Antarctica, place names (Composite Gazetteer of Antarctica [CGA]), a topographic database (Antarctic Digital Database [ADD]), the King George Island GIS, and a maps and Charts Catalogue. The AGDI was also a project of GIP. The website of the Outreach Project was (<u>www.scarggi.org.au/outreach.htm</u>).

Current Projects of AGDI (www.scar-ggi.org.au/geog/agdi/intro.htm) include:

Bathymetry (GEBCO & Other) Surface Elevation (RAMP) Icebed Elevation (BEDMAP) Coastline (RAMP & ADD) Names (CGA) Features (ADD) Remote Sensing (RAMP)

Action: The IHB to advise IHO Member States of the website address where SCAR and other information can be obtained.

Action: HCA members to forward tidal data to Kazuo Shibuya (<u>shibuya@nipr.ac.jp</u>) and John Manning (<u>johnmanning@auslig.gov.au</u>).

11. **IHO MS Contribution to AGDI**

There was no comment on the subject and no further action was suggested by the Meeting.

12. Harmonization of S-57 with ISO TC 211 Standards (HCA/2/12)

The Working Groups of the IHO are aware that as S-57 is intended to be a comprehensive standard to be utilized for all hydrographic applications, new extensions should also be compatible with ISO (TC211) standards and not developed *ab initio* by TSMAD. It is hoped that data produced by IHO Member States for Antarctica would be S-57 compliant and eventually ISO compatible.

13. COMNAP Report

Mr Henry Valentine gave a report on COMNAP. He stated that COMNAP is the spokesman for the Treaty States and COMNAP are also expected to encourage cooperation between the Treaty States. Their concern was the activities of the non-Treaty States. The increasing number of tourist vessels that are frequenting Antarctic waters was also a concern. In spite of the fact that most of them are affiliated to IAATO, should there be a disaster, the response time would be long and the damage to the environment could be catastrophic, due to the remoteness of the area. It is obvious that good pilots, that are well trained and with significant Antarctic experience, are needed.

Action: HCA members to forward comments on the subject to COMNAP.

Dr Hans Werner-Schenke advised the IHB that the use of some surveying equipment, such as multi-beam systems, may be prevented by the German Government. The Chairman indicated that the IHO was concerned and would formally correspond with the Alfred Wegener Institute, Germany. The potential for enormous environmental damage being done as a result of groundings and collisions, should modern surveys not be undertaken, was far greater than that possibly caused by multi-beam transmissions. It was also not scientifically proven that sonar transmission had in fact adverse effects on oceanic mammals. It appears that some States are still using single echo sounders but some, like Germany, are using multi-beam as well.

Action: The IHB to contact the Alfred Wegener Institute, Germany, over the prohibition on the use of multi-beam systems.

In response to a question on what aids to navigation were allowed in Antarctica it was stated that aids to navigation were allowed in terms of the Treaty.

Action: After obtaining the information, COMNAP to respond to the IHB with the extent of aids to navigation in Antarctica.

Australia requested that Members should strive to improve the awareness of need for good survey data in Antarctica.

Action: HCA members to improve the awareness of need for good survey data in Antarctica.

14. IMO Activity Report

The Chairman reported on recent developments at the IMO's Maritime Safety Committee and Navigation Sub-Committee. While the amendments to SOLAS Chapter V were of general importance they did not refer to the Antarctic Region in particular. The IMO was considering an Antarctic Shipping Code in line with that developed for the Arctic.

15. ATCM Activity Report

The Recommendations of the Antarctic Treaty Meeting of Experts, of April 2000, as contained in Document HCA/2/15, were referred to. In particular the recommendations on guidelines for Antarctic shipping, and the Report of the Drafting Group on Environmental Protection and Damage Control.

16. IAATO Report

Unfortunately a representative from IAATO could not attend the Meeting and so the Chairman reported on the correspondence received from IAATO to date. The meeting felt that greater cooperation was necessary between the HCA, IAATO and COMNAP.

UK recommended bringing into use the post visit report form developed by NZ for reporting on tourist and non-governmental activities in the Antarctic Treaty area.

The IHB would enquire as to the next meeting of IAATO and suggest that a representative from the HCA attend. COMNAP would also be advised in the event that they may also wish to attend. The IHB could possibly attend on behalf of HCA.

Action: IHB to enquire as to the next meeting of IAATO and to inform HCA members and COMNAP accordingly.

17. GEBCO Report

GEBCO data had been collected in the area and Members should ensure that this was passed to the GEBCO database in Boulder Colorado or to Hans Werner Schenke who was the GEBCO Coordinator for the Antarctic.

The Chairman drew attention to the fact that SCUFN, which was a part of the IHO/IOC GEBCO Programme, had responsibility for the naming of undersea features. There was little or no involvement on behalf of HCA. It was recommended that IHO Member States with interests in Antarctica should ensure that undersea feature names in the region were approved by SCUFN.

The Gazetteer of Undersea Feature Names would be placed on the IHO website as soon as the database was updated from the last SCUFN Meeting held in Tokyo in April 2001.

Action: HCA Members to endeavour to submit data to the GEBCO database.

Action: HCA members to ensure that Antarctic undersea feature names are approved by SCUFN.

Action: The IHB to place the Gazetteer of Undersea Feature Names on the IHO website as soon as possible.

18. Systematic Use of Spot Images for Antarctic Coastlines

France and Italy submitted a paper on the use of SPOT images in Antarctica and highlighted the use of high-resolution satellites. The request from South Africa over the use of different colours on charts determined from satellite imagery was dealt with under Agenda Item 7.

19. Tidal Data Exchange

This Item was dealt with in Italy's National Report under Agenda Item 5.6.

20. Marine Information Objects

This Item was dealt with under Agenda Item 6.

21. Other Business - Cooperation in surveys, charting, instruction, international organizations and exchange of data

COMNAP informed the Meeting that there were opportunities for training, education and cooperation within COMNAP. He would endeavour to arrange that this information was passed on to the HCA Members.

Australia suggested a website for information on navigation, cruise, and other relevant matters on Antarctica. The IHB undertook to investigate options such as the IHO website and an OEF type of site.

Action: COMNAP to inform HCA members of training, education and cooperation within COMNAP.

Action: IHB to investigate the options for the display of additional information on Antarctica.

Action: IHB to place a resumé of Antarctic charts and publications on the IHO website.

22. Time and Place of Next Meeting

The next Meeting would be held in Monaco (provisionally) immediately prior to or after the IHO Conference in April 2002.

Annex A

LIST OF PARTICIPANTS

COUNTRY	ORGANIZATION	NAME	
Argentina	Hydrograhic Office (SHN)	Jorge C. LAPENTA	shn@hidro.gov.ar
Australia	Hydrographic Office	Capt. Bruce KAFER	Bruce.Kafer@defence.gov.au
	(RANHS)	Mr. Jasbir RANDHAWA	Jasbir.Randawa@defence.gov.au
Chile	Hydrographic Office (SHOA)	Cdr. Jorge PEREIRA LIBOR	shoa@shoa.cl
China	Antarctic Surveying and Mapping Centre	Mr. DONGCHEN E	edc1939@public.wh.hb.cn
France	Hydrographic Office (SHOM)	Ing. en Chef Michel LE GOUIC	mlegouic@shom.fr
Italy	Hydrographic Office	Capt. Gai VASSALLO	iim@assicomitalia.it
	(IIM)	Lt Cdr. Lamberto LAMBERTI	
Norway	Norwegian Mapping Authority, Hydrographic Service (NHS)	Cdr. Arne HAUSKEN	arne.hausken@statkart.no
South Africa	Hydrographic Office	Capt. Leon REEDER	hydrosan@iafrica.com
	(SANHO)	Mrs. D. du PLESSIS	
		(Rapporteur)	
	Surveys and Mapping	Mr. R. WONNACOTT	rwonnacott@sli.wcape.gov.za
United	Hydrographic Office	Mrs. Rosemary TUHEY	Rosemary.Tuhey@ukho.gov.uk
Kingdom	(UKHO)		
COMNAP		Mr. H. VALENTINE	henryv@antarc.wcape.gov.za
ІНВ		Radm Neil GUY (<i>Chairman</i>)	dir1@ihb.mc

Annex B

LIST OF DOCUMENTS

HCA/2/2 rev.3	Agenda
HCA/2/3	Items arising from march 1998 Meeting
HCA/2/4.1	Statutes of the IHO Hydrographic Committee on Antarctica (HCA)
HCA/2/4.2	Signing of Statutes - Note by Australia
HCA/2/4.3	Statutes of the HCA – Comments by Chile
HCA/2/5.1	National Report by Chile
HCA/2/5.2	National Report by France
HCA/2/5.3	National Report by Japan
HCA/2/5.4	National Report by New Zealand
HCA/2/5.5	National Report by Australia
HCA/2/5.6	National Report by Italy
HCA/2/5.7	National Report by Norway
HCA/2/5.8	National Report by South Africa
HCA/2/5.9	National Report by Argentina
HCA/2/5.10	National Report by China
HCA/2/6	Reports of significant new navigational activities
HCA/2/7.1	Status of Surveys Report (for S-59) – Comments by France and Italy
HCA/2/7.2	Update of INT Chart Scheme for Region M
HCA/2/9.1	IHB S-23, Chapter 10
HCA/2/9.2	IHB Australia/Russian comments on S-23
HCA/2/9.3	UKHO comments on S-23
HCA/2/10.1	SCAR WG-GGI Activities including the Antarctic Geographic Data Integration Project (AGDI) 1998 – 2000
HCA/2/10.2	WG- GGI Report to XXVIth SCAR, Tokyo, Japan, July 2000
HCA/2/12	Spatial Data Standards: An Inventory of Hydro-Oceanographic Needs, by Ing. en chef Michel Huet
HCA/2/15	Antarctic Treaty Meeting of Experts - Guidelines for Antarctic Shipping and Related Activities, April 2000, London, UK
HCA/2/17.1	GEBCO Gazetteer of Undersea Feature Names, March 2001
HCA/2/17.2	Standardization of Undersea Feature Names - Publication B-6
HCA/2/18	Use of satellite data for coastlines – Contribution from France
HCA/2/20	Ice Objects for ECDIS - Version 2.1 (Canada)

Annex C

AGENDA

Opening Items

1.	Opening Remarks		
2.	Approval of Agenda (HCA/2/2)IHB		
3.	Items arising from March 1998 Meeting (HCA/2/3)		
	Business Items		
4.	Signing of Statutes4.1IHB letter (HCA/2/4.1)4.2RANHO (HCA/2/4.2)	ALL	
5.	National Reports 5.1 Chile (HCA/2/5.1) 5.2 France (HCA/2/5.2) 5.3 Japan (HCA/2/5.3) 5.4 New Zealand (HCA/2/5.4) 5.5 Australia (HCA/2/5.5) 5.6 Italy (HCA/2/5.6) 5.7 Norway (HCA/2/5.7) 5.8 South Africa (HCA/2/5.8) 5.9 Argentina (HCA/2/5.10)	ALL	
6.	Reports of significant new navigational activities (HCA/2/6)	ALL	
7.	 Review of S-59 and M-11 7.1 Status of surveys – Report from France and Italy (<i>HCA/2/7.1</i>) 7.2 Update of INT Chart Scheme for Region M (<i>HCA/2/7.2</i>) Update of South African INT Chart Scheme 7.3 Proposals for ENC/RNC Production 	ALL	
8.	Status of navigational publication	ALL	
9.	 S-23 Progress 9.1 IHB Chapter 10 (HCA/2/9.1) 9.2 IHB Australia/Russian comments (HCA/2/9.2) 9.3 UKHO (HCA/2/9.3) 	IHB/ALL	
10.	SCAR 10.1 WGGI Report (<i>HCA/2/10.1</i>) 10.2 WGGI Report to XXVI SCAR (Tokyo) (<i>HCA/2/10.2</i>)	SCAR	
11.	IHO MS Contribution to AGDI	ALL	
12.	Harmonization of S-57 with ISO TC 211 standards (HCA/2/12) IHB		
13.	COMNAP Report	COMNAP	

IMO Activity Report [Antarctic Shipping Code/Navigational Infrastructure]		
ATCM	ATCM Activity report [SATCM/ Group of Experts] (HCA/2/15)	
IAATO Report		
GEBCO) Report	
17.1	SCUFN Gazetteer (HCA/2/17.1)	
17.2	Standardization of Undersea feature Names B-6 (HCA/2/17.2)	

18. Systematic Use of SPOT Images for Antarctic Coastlines (HCA/2/18) FRANCE ITALY S. AFRICA 19. Tidal Data Exchange via Internet ITALY (Dealt with under 5.6) 20. Marine Information Objects – Ice Objects Proposal (HCA/2/20) IHB

(*Dealt with under 6*)

Closing items

- 21. Other Business - Cooperation in surveys, charting, instruction, international organizations and exchange of data
- 22. Next meeting

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23. **Closing Remarks** IHB

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STATUTES OF THE IHO HYDROGRAPHIC COMMITTEE ON ANTARCTICA (HCA)

(revised at the 2nd HCA Meeting, Simon's Town, South Africa, 13-14 March 2001)

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 (see 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 (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 IHO Publication 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 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 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.
- 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.
- 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.

Article 11

LANGUAGE OF THE COMMITTEE

11.1.The official language of the Committee shall be English.

Approved by the Committee, Simon's Town, South Africa, March 2001

Appendices:

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

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		
Russian Federation		
South Africa		
Spain		
Ukraine		
United Kingdom		
USA		
Uruguay		

<u>RESOLUTION T1.3 OF THE IHO</u> <u>AS ADOPTED BY THE XVTH INTERNATIONAL HYDROGRAPHIC CONFERENCE 1997</u>

T1.3 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 and not duplicate 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 and technical assistance. They (RHC) should enable, generally, 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. Geographical areas of the RHC will normally coincide with INT 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 should include full members, associate members, and observers. Full membership is reserved for IHO Member States within the region who establish and sign the statutes of the RHC. Associate membership is available to coastal states of the region non-IHO members but who are signatories of the statutes of the RHC. Other Member States of the IHO may participate as associate members (as signatories to the statutes of the RHC) or observers, if they contribute to the safety of navigation by their activities in the fields of hydrography, nautical charting, or nautical information in the region concerned. Organisations active in the region concerned, in the fields of hydrography, nautical charting, nautical information, or aids to navigation may be invited to participate as observers.
- 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 the RHC.
- 7. The Chairs of RHCs will report their activities and future plans to the relevant sessions of the I.H. Conference. Between sessions, reports of studies or other activities, which may be considered of general interest to all Member States, should be sent by the Chair of the RHC to the Bureau for general dissemination.

APPENDIX B

GEOGRAPHIC LIMITS OF IHO INT CHART REGION M



RESOLUTION OF THE ANTARCTIC TREATY CONSULTATIVE MEETING 1995

RESOLUTION 1 (1995) - <u>Strengthening Co-operation in Hydrographic Surveying and</u> <u>Charting of Antarctic Waters</u>

The Representatives of the Consultative Parties,

<u>Having</u> noted that as an implementation of the Recommendation XV-19 the International Hydrographic Organisation (IHO) has established within its Member States a permanent Working Group on Co-operation in Antarctica with the aim of co-ordinating hydrographic surveys and producing international nautical charts along the standards of the IHO;

<u>Recognising</u> the significant step forward made by the IHO Permanent Working Group for Cooperation in Antarctica (PWGCA) which has established a scheme of INTERNATIONAL charts to ensure safe navigation in Antarctic waters;

<u>Considering</u> that the INT chart scheme for Antarctica has been agreed by IHO Member States and that a number of them volunteered for chart production;

<u>Considering</u> that the PWGCA permanently liaises with SCAR for supporting scientific research, which needs hydrographic products;

Noting that the IHO INT chart scheme for the Antarctic region has the support of COMNAP;

<u>Considering</u> that the Antarctic waters require a considerable effort in manpower and equipment to carry out hydrographic surveys adequate for nautical chart production,

Recommend that:

- 1. All Consultative Parties with a hydrographic surveying and charting capability in Antarctica are encouraged to stress nationally that their surveying and charting activities in Antarctica are being co-ordinated through the IHO's PWG on Co-operation in Antarctica. In particular, they should emphasise the INT chart scheme initiative and their national contribution to it, which international co-operation through IHO implements Recommendation XV-19 of the XVth Antarctic Treaty Consultative Meeting, and emphasises the international commitment and nature of their Antarctic activities particularly when seeking national support for hydrographic surveying and charting priorities and budget.
- 2. That the IHO PWG on Antarctica should continue its endeavours to achieve comprehensive, updated coverage of Hydrographic charting, as envisaged by Recommendation XV-19, through the INT chart scheme.

Para.	Subject	Action	Comments/Status (December 2001)
3.	The IHB to investigate the outstanding issues from AHC/1 and to attend to them.	IHB	In progress
4.	a. IHB to circulate the amended Statutes to HCA Members (IHO) for signature.	IHB	Done (This letter)
	b. Chairman to circulate a list of HCA Members with the Report	IHB	Done (This letter)
5.	a. HCA Members to provide the IHB with updates on the ENC/RNC production in the region.	ALL	Done (IHB CL 31/2001)
	b. South Africa and Germany to resolve the responsibility for production of INT 9056.	South Africa & Germany	Not known
	c. IHB to consider the inclusion of the Italian chart 884 and INT 74 (Australia) in M-11, Region M.	IHB	In progress
6.	The IHB to contact both SCAR and COMNAP in regard to the positioning of aids to navigation in the Antarctic.	IHB	TBD
7.	a. HCA members to advise the IHB of any updates to S-59 and M-11 (Region M).	ALL	In progress
	b. IHB to forward a copy of the South African Chart to the CSC for comment.	IHB	TBD
8.	a. The IHB to investigate whether it is possible to maintain a register on it's website, listing all the publications available.	IHB	TBD
	b. HCA Members to forward to the IHB a list of their publications covering Antarctic waters with a brief resumé of their contents.	ALL	TBD
9.	a. The UKHO to send comments to the IHB on the limits of the Weddell Sea.	UKHO	TBD
	b. HCA Members to send written comments on S-23, Chapter 10, to the IHB.	ALL	In progress (IHB CL 55/2001)
10.	a. The IHB to advise IHO Member States of the website address where SCAR and other information can be obtained.	IHB	TBD
	b. HCA Members to forward tidal data to Kazuo Shibuya (<u>shibuya@nipr.ac.jp</u>) and John Manning (johnmanning@auslig.gov.au).	ALL	Not known

Para.	Subject	Action	Comments/Status
13.	a. HCA Members to forward comments on the subject to COMNAP.	ALL	Not known
	b. The IHB to contact the Alfred Wegener Institute over the prohibition on the use of multi-beam systems.	IHB	Done
	c. After obtaining the information, COMNAP to respond to the IHB with the extent of aids to navigation in Antarctica.	COMNAP	TBD
	d. HCA Members to improve the awareness of need for good survey data in Antarctica.	ALL	Not known
16.	IHB to enquire as to the next meeting of IAATO and to inform HCA Members and COMNAP accordingly.	IHB	TBD
17.	a. HCA Members to endeavour to submit data to the GEBCO database.	ALL	Not known
	b. HCA Members to ensure that Antarctic undersea feature names are approved by SCUFN.	ALL	In progress
	c. The IHB to place the Gazetteer of Undersea Feature Names on the IHB website as soon as possible.	IHB	Done (GEBCO Web site)
21.	a. COMNAP to inform HCA Members of training, education and cooperation within COMNAP.	COMNAP	Not known
	b. IHB to investigate the options for the display of additional information on Antarctica.	IHB	TBD
	c. IHB to place a resumé of Antarctic charts and publications on the IHO website.	IHB	TBD

Annex F

MEMBERSHIP LIST

COUNTRY/ INSTITUTION	NAME	E-mail
Argentina	RAdm D. Eduardo Amadeo	shn@hidro.gov.ar
	RODRIGUEZ	dhidro@hidro.gov.ar
Australia	Capt. Bruce KAFER	Bruce.Kafer@defence.gov.au
Brazil	VAdm Ivan PEREIRA ARÊAS	07bhi@dhn.mar.mil.br
Chile	Capt. Fernando MINGRAM	shoa@shoa.cl
China	Capt. LIU GONGCHEN	tjhjjhzx@public.bta.net.cn
Ecuador	C.F. Fernando ZURITA FABRE	inocar@inocar.mil.ec
France	IGA Yves DESNOËS	desnoes@shom.fr
Germany	Dr. Peter EHLERS	peter.ehlers@bsh.d400.de
Greece	Radm Alexandros MARATOS	dcd@hnhs.gr
India	Rear Admiral K. R SRINIVASAN	nho@sancharnet.in
Italy	Capt. Angelo AGLIATA	iim@assicomitalia.it
Japan	Dr. Yasuhiro GANEKO	ico@cue.jhd.go.jp
Korea, Rep. of	Mr. Ha-Jun KIM	choish@nori.go.kr
New Zealand	Mr. John SPITTAL	jspittal@linz.govt.nz
Norway	Mr. Frode KLEPSVIK	official-sksk@statkart.no
Peru	Radm Hector SOLDI Soldi	dihidronav@dhn.mil.pe
South Africa	Capt. Leon REEDER	hydrosan@iafrica.com
Spain	Capt. Juan M. Nodar CRIADO	ihmesp@retemail.es
Russia	Admiral Anatoliy A. KOMARITSYN	gunio@chartpilot.ru
Ukraine	Capt. (Retd) Andrew KORYAKIN	dudg@ukr.net
United Kingdom	Dr. David Wynford WILLIAMS	wyn.williams@ukho.gov.uk
USA	Captain David B. MacFARLAND	David.Macfarland@noaa.gov
Uruguay	Captain Hugo Roldos de la SOVERA	sohma@armada.gub.uy
OBSERVERS		
COMNAP	Mr. SAYERS, Australia	jsayers@comnap.aq
GEBCO	Dr. Hans Werner SCHENKE, Germany	schenke@AWI-Bremerhaven.DE
ΙΑΑΤΟ	Ms. Denise LANDAU	iaato@iaato.org
SCAR WG-GGI	Mr. Glenn JOHNSTONE, Australia	GlennJohnstone@auslig.gov.au

Annex G

LIST OF ACRONYMS USED IN THESE MINUTES

ADD	Antarctic Digital Database
AGDI	Antarctic Geographic Data Integration
BEDMAP	Antarctic Bedrock Mapping Project (SCAR)
CGA	Composite Gazetteer of Antarctica (SCAR)
CHRIS	Committee on Hydrographic Requirements for Information Systems (IHO)
COMNAP	Council of Managers of National Antarctic Programs
CSC	Chart Standardization Committee (IHO)
DGPS	Digital Global Positioning System
ECDIS	Electronic Chart Display and Information System
ENC	Electronic Navigational Chart (IHO)
GEBCO	General Bathymetric Chart of the Oceans (IHO-IOC)
GIANT	Geographic Infrastructure in Antarctic Program
GIP	Geographic Information Program
GIS	Geographic Information System
GLONASS	Global Navigation Satellite System
GPS	Global Positioning System
HCA	Hydrographic Committee on Antarctica (IHO)
ΙΑΑΤΟ	International Association of Antarctic Tour Operators
IEC	International Electrotechnical Commission
IHB	International Hydrographic Bureau
IHO	International Hydrographic Organization
IMO	International Maritime Organization
INT	International (Chart – IHO)
IOC	Intergovernmental Oceanographic Commission
ISO	International Organization for Standards

MIO	Marine Information Objects
MS	Member State (IHO)
NZ	New Zealand
RAMP	Radarsat Antarctic Mapping Project (SCAR)
RNC	Raster Navigational Chart (IHO)
SCAR	Scientific Committee on Antarctic Research
SCUFN	Sub-Committee on Undersea Feature Names (GEBCO)
SNPWG	Standardization of Nautical Publications Working Group (IHO)
SOLAS	Safety of Life at Sea Convention (IMO)
SPOT	Satellite Pour l'Observation de la Terre
S-23	Special Publication S-23 "Limits of Oceans and Seas" (IHO)
S-57	Special Publication S-57 "IHO Transfer Standard for Digital Hydrographic Data" (IHO)
S-59	Special Publication S-59 "Status of Hydrographic Surveying and Nautical Charting in Antarctica" (IHO)
TSMAD	Transfer Standard Maintenance and Application Development W.G. (IHO)
UKHO	United Kingdom Hydrographic Office
WG-GGI	Working Group on Geodesy and Geographic Information (SCAR)