

**12th Conference of the Hydrographic Commission on Antarctica (HCA)
Montevideo, Uruguay, 10-12 October 2012**

MINUTES

Notes: 1) A list of acronyms used in these Minutes is at Annex A.
2) A list of all actions from HCA12 is at Annex E.

1.- OPENING

Docs: HCA11-01A [List of Documents](#) (also Annex C)
HCA11-01B rev1 [List of Participants](#) (also Annex B)

The 12th Conference of the Hydrographic Commission on Antarctica (HCA) took place at the InterCity Premium Hotel in Montevideo, Uruguay, from 10 to 12 October 2012. The conference was organised by the *Servicio de Oceanografía, Hidrografía y Meteorología de la Armada* (SOHMA), of Uruguay. Ten HCA Member States¹, out of 23, were represented at the conference, plus observers from COMNAP and IAATO, and one expert contributor (Fugro-Pelagos). In total, 21 delegates were in attendance.

Participants were welcomed by Captain Gustavo MUSSO, Director of SOHMA, in the presence of Rear Admiral Daniel NUÑEZ, Chief of the Uruguay Navy Staff. Opening Remarks were provided by IHO President Robert WARD, the new HCA Chair. He highlighted the differences of HCA from the Regional Hydrographic Commissions. In particular, that the Chair is a member of the IHB Directing Committee, rather than from a Member State. In addition, there are no recognised coastal States in Antarctica, meaning that the recognition and support States in meeting the obligations of SOLAS V Regulation 9 is more problematic than in the Arctic Regional Commission, where there are recognised littoral States. He stressed that conducting hydrographic surveys in Antarctic waters is expensive, hence there is a need to raise awareness among all organisations with interests in the region. Mechanisms must be developed that improve the level of hydrographic surveying and nautical charting; an accident may have a huge detrimental impact on the environment. President WARD expressed regret that the discussions held at HCA11 on the IMO Polar Code were not followed up at IMO forums.

He thanked Capt. MUSSO for organizing the conference and the Uruguay Navy for its support.

IHB Assistant Director Michel HUET, HCA Secretary, reviewed the documentation available to the conference, noting that all documents had been posted on the IHO website (www.iho.int/mtg_docs/rhc/HCA/HCA12/HCA12Docs.htm).

Outcome:

- The Commission noted the documents introduced.

2.- HCA MEMBERSHIP STATUS

Docs: HCA12-02A [HCA Membership and Observers List](#)
HCA12-INF1 [Current HCA Statutes](#)

The Chair (President WARD) indicated that HCA currently comprised 23 IHO Members States. As 10 HCA members were in attendance, the quorum to hold a conference was attained (one third of the

¹ Australia, Brazil, Chile, Ecuador, New Zealand, Peru, Spain, United Kingdom, United States and Uruguay.

total number being eight). Should a vote be necessary, decisions would be taken by a simple majority of members present.

Referring to the HCA statutes, the Chair noted that some updates to the text were needed to take into consideration recent changes, for example, former “Administrative Resolution T1.3” should now be described as “Resolution 2/1997, as amended” at para. 1.1 and the most recent version of current Resolution 2/1997 should be included in Annex A of the Statutes.

The Commission felt that additional changes to the Statutes might be required and established an ad hoc group led by Australia (Cmdre. Rod NAIRN) to conduct a thorough review of the statutes during the conference. This review resulted in the revised HCA statutes shown at Annex F (changes highlighted through “track changes”), which was approved.

Regarding article 5.1 of the statutes which deals with HCA chairmanship, the majority views was that the HCA Chair should continue to be an IHB Director.

Outcome:

- The Commission noted the two papers.
- The Commission agreed revised HCA statutes, as at Annex F.
- **Action HCA12/01 - IHB**, as HCA Secretariat, to finalize editorial amendments, such as, references to Resolution T1.3 at Appendix A, in the revised HCA Statutes adopted at HCA12 and promulgate an updated version of the Statutes on the HCA page of the IHO website.

3.- APPROVAL OF THE AGENDA

Docs: *HCA12-03A rev1* [Agenda](#) (also Annex D)
HCA12-03C [Programme](#)

The agenda was agreed without change.

UK (RAdm Nick LAMBERT) mentioned that a presentation on crowd source data collection would be given as part of the UK report (section 7.4A).

Outcome:

- The Commission approved the agenda (see Annex D).

4.- ELECTION OF VICE-CHAIRMAN

The Chair reminded that, according to the HCA statutes, a Vice-Chair must be elected at each HCA conference. The Vice-Chair’s role was briefly discussed. The general understanding was that, so far, it was limited to replacing the Chair when the latter is unable to fulfil the requirements of the position. However, the Vice-chair could possibly take a more active role, e.g. he/she could be an intercessional work coordinator.

Mr. John J. HAUTMANN Jr. (USA) confirmed his acceptance to be a candidate for HCA Vice-Chair. There were no other candidates. Mr. HAUTMANN was elected by acclamation.

Outcome:

- Mr. John J. HAUTMANN Jr. (USA) was elected as Vice-Chairman of HCA.

5.- STATUS OF LIST OF ACTIONS RESULTING FROM THE 9TH HCA CONFERENCE

Docs: HCA12-05A rev1

[Status of Actions List from HCA11](#)

HCA12-INF2

[Minutes of HCA11](#) (Hobart, Australia, 2011)

HCA12-INF3

[IHO Report submitted to ATCM-35](#) (Hobart, Australia, 2012)

The Chair and the Secretary reviewed all actions arising from the 11th HCA conference. Most of the actions had been completed and the pending items would be addressed as part of the conference agenda. Particular comments were made as follows (Action nos. are those in HCA12-05A):

- Action HCA11/1 – *Guidelines for ships of opportunity data collection*. It was reported by NZ that no progress had been made on this matter. The Commission established an ad hoc group led by New Zealand (Stuart CAIE), with participation from Chile, UK, Uruguay and IAATO, to develop “IHO guidelines for the collection and rendering of hydrographic data by Ships of Opportunity operating in the Antarctic Region”. NZ agreed to progress the matter by correspondence.

Outcome:

- **Action HCA12/2: New Zealand** to circulate an initial draft to the Ships of Opportunity Guidelines WG by end October 2012, for consideration and comments; then complete and circulate a first draft to all HCA members and observers by end December 2012 for comment. Final draft to be considered at HCA13.

- Actions HCA11/2 & 3 – *Precautions in Using Navigational Charts in Polar Waters*. The Chair stated that this matter had been overtaken by events. The so-called “Danish paper” that was mentioned in HCA Letter 4/2011 was presented as an information paper at NAV58. There was therefore no debate or discussion on the contents. The Chair felt that an opportunity had been missed to include HCA requirements into the IMO Polar Code. He encouraged HCA members to contact their IMO national delegates and bring Antarctic hydrographic and charting issues to their attention: it was unlikely that IMO delegates would obtain expert advice otherwise. The Commission agreed that an information paper should be developed that would assist HCA members in their dealings with their IMO national delegates.

Outcome:

- **Action HCA12/3: HCA Chair** to circulate an initial draft text that may be used by HCA members to maintain as strong relationship as possible with their IMO national delegates in order to raise level of awareness of the need for improved hydrographic surveying and charting in Antarctica. Deadline: end December 2012.

- Action HCA11/4 – *Development of a large scale ENC scheme*. It was reported by IHB that no progress had been made on this matter. It was agreed that, from now on, the coordination of INT chart and ENC scheming in Region M would be undertaken by the Hydrography Priorities Working Group (HPWG) instead of the IHB. Accordingly, the development of a large scale ENC scheme in Region M becomes a task for HPWG to undertake. See also section 8 for HPWG revised terms of reference.

Outcome:

- The Commission agreed the change of INT coordinator for Region M, from the IHB to the Hydrographic Priorities Working Group (HPWG), and that HPWG will also coordinate the ENC scheming in Region M.
- **Action HCA12/4: HPWG**, as INT chart and ENC coordinator for Region M, to develop a large scale ENC scheme (navigational purposes 4 and 5) and review the existing smaller scale schemes, and submit to HCA by correspondence for comments / approval. Deadline: Mid March 2013.

- Action HCA11/5 – *HCA-related capacity building initiatives*. See HCA12-07.6A and section 6.7.
- Actions HCA11/6 & 7 – *Seeking support from ATCM*. The results of these two actions were reflected in a paragraph of the IHO report to ATCM-35 (HCA12-INF3). The Commission considered that there was a need to be more proactive, to do more lobbying to ATCM. Instead of simply submitting IHO reports to ATCM, which are politely noted, it would be better to ask ATCM to take position on topics of interest to HCA. It was agreed that an awareness paper should be prepared, for submission to the next ATCM. The option to involve the government of Monaco, as party to the Antarctic Treaty, at a later stage was mentioned.

Outcome:

- **Action HCA12/5:** Subject to it being feasible, **UK** to prepare, in liaison with HCA Chair, an IHO/HCA submission to ATCM-36 raising awareness of the need for improved hydrographic surveying and charting in Antarctica; paper to be co-sponsored by HCA members through their ATCM delegates. Deadline: end November 2012.

- Action HCA11/8 – *IAATO ships' track information*. IAATO referred to the IAATO ships' track system and reported that this action was still ongoing. See also section 6.3.
- Action HCA11/9 – *Proforma data request form for chart producers to request data to other HCA members*. See HCA12-07.1E and section 7.1.
- Action HCA11/10 – *ENC(s) based on INT 902 and 903*. It was reported by the UK that the planned visit to Russia by the UK had been cancelled. The Commission was informed by the IHB that Russia has published two 'overview' ENCs based on the above INT charts. See also section 7.2.
- Action HCA11/11 – *Antarctic GIS/database*. See HCA12-07.4B and section 7.4.
- Actions HCA11/12 & 13 – *Inclusion of two new INT charts in the scheme*. See HCA12-07.1D and section 7.1.
- Routine Actions HCA/1 & 2 – *Feedback from and visit of hydrographic surveyors to IAATO ships*. IAATO reported that a reminder and a reporting form were circulated in the IAATO Field Operation Manual. Also, the only request received for the 2011/12 season (SOHMA, Uruguay for Maxwell Bay, King George Island) could not be satisfied as the timing of the HO campaign missed the visits of most of IAATO vessels at this location. It was believed that the situation will improve when the "HCA Ships of Opportunity Guidelines" are available (see Action HCA12/2).
- Routine Action HCA/4 – *Catalogue of Chart Production in Antarctica*. It was agreed that the Catalogue of Chart Production in Antarctica would be replaced with a list of links to national chart catalogues. See initial list at Annex G. As a result, Routine Action HCA/4 becomes "IHB to

maintain the page on the IHO website listing the links to national chart catalogues of HCA members publishing charts in Region M". See also § 7.5.

- Routine Action HCA/6 – *List of nautical publications*. It was agreed that this list would be replaced with a list of links to national catalogues of nautical publications. See initial list at Annex H. As a result, Routine Action HCA/6 is changed to: "IHB to maintain the page on the IHO website listing the links to national catalogues of nautical publications, for HCA members publishing nautical publications in Region M."

This concluded the review of action items arising from HCA11.

Outcome:

- The Commission noted the 3 papers.
- The Commission agreed the Minutes of HCA11 as a true record.
- The Commission noted the list of actions reviewed.

6.- RELEVANT INTERNATIONAL ORGANIZATIONS' REPORT

6.1 Antarctic Treaty Secretariat (ATS) (www.ats.aq)

Docs: HCA12-INF3 [IHO Report submitted to ATCM-35](#) (Hobart, Australia, 2012)
HCA12-INF4 [Outcomes from ATCM-XXXV](#) (IHB)

There was no representative of the ATCM Secretariat at the conference and no report was received. Brief reference was made to the IHO report submitted to the 35th ATCM in 2012.

With reference to HCA12-INF4, section C, paragraph SP 9 "Report of the ICG on Review of ATCM Recommendations on Operational Matters", the Commission established an ad hoc group led by the HCA Vice Chair (HAUMANN, USA), with the participation of New Zealand and UK, to review all existing ATCM recommendations/resolutions dealing with hydrography and prepare a consolidated text covering hydrography. This work resulted in a consolidated text, as at Annex I.

It was noted that the 36th ATCM will take place in Brussels, Belgium, from 20 to 29 May 2013.

Outcome:

- The commission noted the two papers.
- **Action HCA12/6 - HCA Chair** to forward the proposed consolidated ATCM Recommendation concerning Hydrography in Antarctica to Ms. Rogan-Finnemore - leader of the review group established at ATCM-XXXV. Deadline: end November 2012.

6.2 Council of Managers of National Antarctic Programs (COMNAP) (www.comnap.aq)

Docs: HCA12-06.2A [COMNAP Report](#)

The main purpose of COMNAP is to develop and promote best practice in managing the support to scientific research in Antarctica. COMNAP provides the Antarctic Treaty System

with practical and technical advice drawn from the National Antarctic Programs' pool of expertise.

Reference was made to the COMNAP Ship Position Reporting System (SPRS), a voluntary system for exchange of information about National Program ship operations and capabilities.

The Chair remarked that COMNAP appears to act as an implementation body for ATCM, similarly to the IHO with respect to IMO. He suggested approaching COMNAP to see if an MOU-like agreement should be established between IHO/HCA and COMNAP, which hopefully would increase HCA's influence to ATCM. This was agreed.

The 24th COMNAP Annual General Meeting (AGM) took place on 16-19 July 2012 in Portland, Oregon, USA. The 25th COMNAP AGM will be held on 8-11 July 2013 in Seoul, Rep. of Korea.

Outcome:

- The Commission noted the report.
- **Action HCA12/7 - HCA Chair** to investigate options to establish liaison protocol between HCA and COMNAP. Deadline: end December 2012.

6.3 International Association of Antarctica Tour Operators (IAATO) (www.iaato.org)

Docs: HCA12-06.3A [IAATO Report](#) (to ATCM-34)

HCA12-INF5 [IAATO Overview of Antarctic Tourism: 2011-12 Season and Preliminary Estimates for the 2012-13 Season](#)

IAATO is a global network of tour operators that banded together in 1991 to advocate, promote and practice safe and environmentally responsible private-sector travel to the Antarctic.

The total number of passengers and clients carried by IAATO operators during the 2011-12 season decreased to 26,519. This is a decline of 21.6 percent from the previous 2010-11 Antarctic tourism season (33,824). This is due to the worldwide economic downturn, but also the withdrawal from the market of several IAATO members that operate cruise-only programs that are affected by amendments to the IMO MARPOL convention that bans the use and carriage of heavy fuel oil in the Antarctic Treaty area and came into effect 1st August 2011. The vast majority of tourism voyages operate in the Antarctic Peninsula region.

All commercial SOLAS passenger ships in the IAATO fleet are now equipped with a web-based satellite vessel tracking system, to enhance contingency response. IAATO indicated that vessel tracking information will be made available to HCA members from 2013, via the IHB, for chart and survey priority purpose (Action HCA11/8 refers).

See also Action HCA12/2 - *Ships of Opportunity Guidelines*.

The 23rd IAATO Annual Meeting took place on 1-3 May 2012 in Providence, Rhode Island, USA. The 24th IAATO Annual Meeting will be held on 22-25 April 2013 in Punta Arenas, Chile.

Outcome:

- The Commission noted the report and the information paper.

6.4 Scientific Committee on Antarctic Research (SCAR) (www.scar.org)

There was no SCAR representative at, nor SCAR report to the conference.

7.- HCA ACTIVITIES IN THE LIGHT OF THE IHO WORK PROGRAM:

7.1 INT chart scheme: progress made since last conference and actual charting status; new requirements and modifications proposed to the scheme (S-11).

Docs: HCA12-07.1A [INT Chart Scheme and Production Status for Region 'M'](#)
 HCA12-07.1B [INT Charts in Progress or Not Produced](#)
 HCA12-07.1C [Layout of INT Production Status for Region 'M'](#)
 HCA12-07.1D [Justification for two new proposed INT charts](#) (Action HCA11/12)
 HCA12-07.1E [Proforma Bathymetric Data Request Form](#) (Action HCA11/9)

IHB reported that, as of September 2012, 70 INT charts had been published, from a total of 108 charts in the scheme for Region M. Since the previous conference, five new charts had been published by Argentina (INT 9142), Australia (INT 9038), UK (INT 9163), USA (INT 9062) and Ecuador (INT 9129 – presented to the conference), and three new editions by South Africa (INT 9056) and UK (INT 9153 & 9154). 27 INT Charts were planned for publication in the period 2012 – 2015 as either new publication or new edition.

The Commission reviewed HCA12-07.1B focusing on INT charts not yet published. The review results are summarized in the table below.

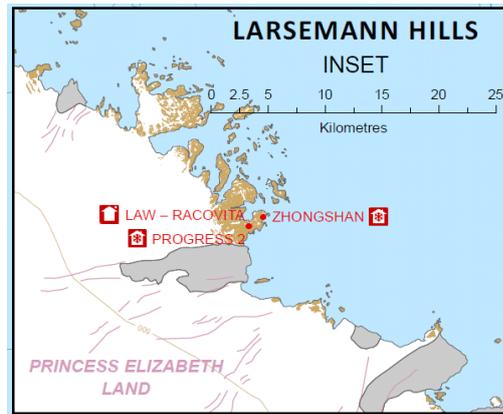
| INT No. | Producer | Scale 1: | Comments |
|---------|----------|-----------|---|
| 9000 | IT | 500 000 | No information available. |
| 9022 | AU | 500 000 | Publication planned in late 2012 or 2013. |
| 908 | GB | 2 000 000 | Publication planned after 2015. |
| 909 | NO | 2 000 000 | Publication planned in 2013. |
| 905 | DE | 2 000 000 | Publication planned in 2013. |
| 9140 | AR | 150 000 | Publication planned after 2015. |
| 9103 | CL | 50 000 | Publication planned in 2014. |
| 9104 | CL | 50 000 | Publication planned in 2013. |
| 9107 | GB | 50 000 | Publication planned in 2013. |
| 9108 | CL | 50 000 | No date for the time being. |
| 9110 | CL | 30 000 | No date for the time being. |
| 9111 | AR | 25 000 | Publication planned in 2013. |
| 9117 | GB | 10 000 | Publication planned after 2014. |
| 9131 | GB | 75 000 | No date for the time being. |
| 9132 | GB | 75 000 | Publication planned in 2013. |
| 9133 | GB | 75 00 | No date for the time being. |
| 9157 | CL | 150 000 | Publication planned after 2015. |
| 9159 | GB | 150 000 | Publication planned after 2014. |

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| 9160 | GB | 150 000 | Publication planned after 2014. |
| 9161 | CL | 150 000 | No date for the time being. |
| 9162 | CL | 150 000 | Publication planned after 2014. |
| 9164 | CL | 150 000 | Publication planned after 2014. |
| 9171 | GB | 500 000 | Publication planned after 2015. |
| 9100 | AR | 25 000 | No date for the time being. |
| 9101 | AR | 10 000 | Publication planned in 2013. |
| 9112 | GB | Various | Publication planned after 2015. |
| 9113 | GB | Various | Publication planned after 2015. |
| 9114 | GB | Various | Publication planned after 2015. |
| 9115 | AR | 50 000 | No date for the time being. |
| 9116 | GB | Various | Publication planned after 2015. |
| 9125 | BR & PE | 40 000 | Publication planned in 2013. |
| 9126 | BR | 40 000 | Publication planned in 2014. |
| 9127 | BR | 40 000 | Publication planned in 2014. |
| 9128 | ES | 5 000 | Publication planned in late 2012 or 2013. |
| 9130 | GB | 75 000 | Publication planned after 2015. |
| 9151 | CL & BR | 200 000 | Publication planned after 2015. |
| 9152 | CL & BR | 200 000 | Publication planned after 2015. |

The commission reviewed HCA12-07.1D providing justification for the inclusion of two new charts in the scheme:

- One INT chart covering Melchior Islands, at scale 1:30 000 and with following limits: South = 64°23.0'S; North = 64°14.5'S; West = 63°04.0'W; East = 62°50.0'W
The proposed new chart was accepted. It was noted that Argentina has a summer station in this area.
UK volunteered to be the producer nation for this chart, which was agreed. UK indicated that it could only be published after 2015.
- One INT chart covering the northwestern part of English Strait, at scale 1:25 000 and with following limits:
South = 62°25.0'S; North = 62°16.5'S; West = 59°38.1'W; East = 59°51.0'W
The proposed new chart was accepted.
No HCA member volunteered to be the producer nation for this chart. It would be marked "unallocated" for the time being.

Australia suggested there may be a need for a new INT chart at medium scale, e.g. 1:150 000, in the area of Larsemann Hills, with approximate limits 68°S to 69°30'S and 75°E to 77°E. There are three scientific stations in this area, from China (Zhongshan – all year), Russia (Progress 2 – all year) and Australia & Romania (Law-Racovita - summer), and an additional Indian station (Bharati – all year) is being established. The proposed chart would cover the approaches to these stations.



It was agreed that the IHB would seek the views of the HCA members concerned.

Noting that production of INT charts in Region M is regularly delayed, the Commission discussed possible means of remedying this situation, e.g. by contracting out some of the relevant activities. UK offered to progress this issue, in liaison with the IHB.

It was mentioned that the Hydrographic Priorities Working Group (HPWG), with its new responsibility as coordinator of INT chart and ENC schemes, will have to address charting requirements and priorities, in addition to survey requirements, which could lead to changes to the chart schemes.

The Commission considered HCA12-07.1E providing a “Request for Bathymetric Data” form, to be used by chart producers seeking data from HCA members prior to chart compilation in order to ensure that any new chart / edition will make use of all available data. The form was accepted, subject to the addition of quality elements as suggested by Australia.

Outcome:

- The Commission noted the five reports/papers.
- The Commission agreed the proposal to include two new INT charts in the scheme (HCA12-07.1A), with details as above.
- The Commission agreed the proposed “Request for Bathymetric Data” form (HCA12-07.1E), subject to the addition of quality elements.
- **Action HCA12/8 – IHB** to include two new INT charts in the INT chart scheme for
 - Melchior Islands, scale 1:30 000, UK producer, post 2015; Region M, as follows (limits as amended during HCA12):
 - NW accesses to English Strait, scale 1:25 000, unallocated producer.
- **Action HCA12/9 – IHB** to invite India, Russia, China and Australia to comment on a proposal to include in the INT chart scheme for Region M, a new chart at medium scale, e.g. 1:150,000, in the area of Larsemann Hills, with approximate limits 68°S to 69°30’S and 75°E to 77°E. Deadline: end December 2012.
- **Action HCA12/10 - UK**, in cooperation with **IHB**, to investigate external funding opportunities to accelerate the Antarctic survey and charting programmes, including supporting scientific and environmental benefits. IHB and UK to discuss in Monaco in early December 2012.

7.2 ENC scheme and production status

Doc: HCA12-07.2A [ENC Schemes and Production Status for Region M](#)

HCA12-07.2B [ENC Gaps and Overlaps, and Regional Assessments for Cruise Ship Priorities](#)

IHB reported on the ENC status for Region 'M'. From the information available at the IHB, 70 ENCs had been published as of September 2012, based national charts and INT charts. These ENCs include 13 "overview", 10 "general", 17 "coastal", 15 "approach", 14 "harbour" and 1 "berthing". An additional 51 ENCs are planned for publication in 2012-13. Current status of ENC production was as follows:

| HCA Member | ENC published | ENC planned (2012/2013) |
|------------------|---|--|
| Argentina | None | <ul style="list-style-type: none"> - 1 general ENC (AR207000) based on INT 9170 and AR H-724 - 1 coastal ENC (AR307240) based on INT 9156 and AR H-724 - 1 approaches ENC based on INT 9111 - 2 harbour ENCs based on INT 9142 and INT 9101 |
| Australia | <ul style="list-style-type: none"> - 1 coastal ENC based on INT 9014 (AU367142) - 4 approaches ENCs based on INT 9036 (AU468062 and AU468063), INT 9014 (AU468142) and INT 9032 (AU460280) - 2 harbour ENCs based on INT 9036 (AU5600P1) and INT 9014 (AU5603P1) | <ul style="list-style-type: none"> - 4 overview ENCs based on INT 74 (AU190060, AU190090, AU190120 and AU190150). - 8 general ENCs based on INT 9035 (AU270050), INT 9035 & 9033 (AU270060), INT 9033 & 9030 (AU270070), INT 9030 & 9031 (AU270080), INT 9031 (AU270090), INT 9020 (AU270100 and AU270110) and Aus 597 (AU2597P0) - 4 approaches ENCs based on INT 9037 (AU68060 and AU68061) and INT 9021 (AU466110 and AU467110). - 1 harbour ENCs based on INT 9021 (AU601P1) |
| Brazil | <ul style="list-style-type: none"> - 1 coastal ENC based on INT 9150 (BR325110) - 1 approaches ENC based on BR 25121 (BR425121) - 1 harbour ENC based on BR 25121 (BR525121) | None |
| Chile | <ul style="list-style-type: none"> - 1 coastal ENC (CL3MA850) - 3 harbour ENCs based on INT 9102 (CL5MA890) and INT 9155 (CL5MA800 and CL5MA860) | <ul style="list-style-type: none"> - 1 approaches ENC based on INT 9124. - 1 harbour ENC based on INT 9123. |

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| France | <ul style="list-style-type: none"> - 1 approaches ENC based on INT 9016 (FR475940) - 1 harbour ENC based on INT 9017 (FR575930) - 1 berthing ENC based on INT 9017 (FR67593A) | <ul style="list-style-type: none"> - 1 overview ENC based on INT 901 (FR175910). - several coastal ENCs based on FR charts 6741, 6498 and 7171. |
| Germany | <ul style="list-style-type: none"> - 1 general ENC based on INT 9055 (DE260001) - 1 coastal ENC based on INT 9057 (DE3600010) | <ul style="list-style-type: none"> - 1 overview ENC based on INT 905 |
| Italy | <ul style="list-style-type: none"> - 2 coastal ENCs based on INT 9004 (IT300884) and INT 9005 (IT300881) - 1 harbour ENC (IT400881) | <ul style="list-style-type: none"> - 1 general ENC based on INT 9000 |
| Japan | <ul style="list-style-type: none"> - 1 general ENC based on INT 9045 - 4 coastal ENCs based on INT 9046 (JP30ODCO, JP30ODCS, JP30PKEO, JP30PKES) - 4 approaches ENCs based on INT 9047 (JP40POTS, JP40POTU, JP40PKES, JP40PKEU) - 2 harbour ENCs based on INT 9047 (JP50PAME, JP50PKEU) | <ul style="list-style-type: none"> None |
| New Zealand | <ul style="list-style-type: none"> - 2 overview ENCs based on INT 65 (NZ14065E and NZ14065W) - 2 general charts based on INT 900 (NZ21490E and NZ21490W) | <ul style="list-style-type: none"> - 3 coastal ENCs based on INT 9008 (NZ314908), INT 9009 (NZ314909) and INT 9012 (NZ314912) - 5 approaches ENCs based on INT 9001 (NZ414901), INT 9003 (NZ414903), INT 9006 (NZ414961 and NZ414962) and INT 9007 (NZ414907) - 4 harbour ENCs based on INT 9002 (NZ514902), INT 9003 (NZ514903) and INT 9006 (NZ514961 and NZ514962) |
| Norway | <ul style="list-style-type: none"> - 1 overview ENC based on INT 904 (NO1A5500) | <ul style="list-style-type: none"> - 1 overview ENC based on INT 909 |

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| Russian Federation | <ul style="list-style-type: none"> - 2 overview ENC's based on INT 903 (RU1A2K00) and INT 902 (RU1B0PFO). - 6 general ENC's based on INT 9172 (RU2A1AD0), INT 9060 (RU2ANEN0), INT 9050 (RU2A0ES0), INT 9040 (RU2BNM40), INT 9025 (RU2BLQN0) and INT 9010 (RU2A2X10). - 3 coastal ENC's based on INT 9051 (RU3A2J30), INT 9041 (RU3BNMF0) and INT 9011 (RU3BRXL0). - 1 approaches ENC based on INT 9026 (RU4BKR40). - 2 harbour ENC's based on INT 9042 (RU5BNMH0) and INT 9027 (RU5BJR80). | <ul style="list-style-type: none"> - 4 harbor ENC's based on RU 48922 (RU5BNMH2), RU 48919 (RU5BNMH1), RU 48956 and RU 48956-A |
| South Africa | | <ul style="list-style-type: none"> - 1 coastal ENC based on INT 9056 (ZA300300) |
| Spain | None | <ul style="list-style-type: none"> - 1 approaches ENC based on INT 9121 - 1 harbour ENC based on INT 9128 |
| UK | <ul style="list-style-type: none"> - 8 overview ENC's based on INT 24 (GB104024B), INT 64 (GB104064B), INT 75 (GB104075), INT 63 (GB104063), INT 74 (GB104074), INT 907 (GB104907), and on national charts BA 4213 (GB104213) and BA 3200 (GB103200) - 4 coastal ENC's based on INT 9158 (GB372110), INT 9153 (GB372220), INT 9154 (GB372210) and INT 9163 (GB302974) - 2 approaches ENC's based on INT 9106 (GB47211A) and INT 9109 (GB47201A) - 2 harbour ENC's based on INT 9158 (GB57211A and GB57211B) | <ul style="list-style-type: none"> - 1 overview ENC (GB104906), based on INT 906 - 1 coastal ENC (GB303566), based on BA 3566 |
| USA | None | <ul style="list-style-type: none"> - 1 coastal ENC based on INT 9062 - 1 approaches ENC based on INT 9105 |

In order to facilitate the maintenance of the above table reflecting the status of ENC production in Region M, HCA members were invited to include such information in their future national reports.

Acknowledging that two “overview” ENC’s, based on INT 902 and 903 (Russia producer) and extending north of 60°S, had been published by Russia, Australia informed of its intention to produce a further “overview” ENC covering both INT charts.

Reference was made to WEND-WG Letter 02/2012 dated 18 September (HCA12-07.2B), requesting that an analysis be conducted in each RHC area in order to identify possible ENC gaps and overlaps. HPWG, being now in charge of also coordinating ENC scheming and production, in addition to INT charts, was tasked to carry out such analysis for Region M.

Outcome:

- The Commission noted the report.
- **Action HCA12/11 – HCA members** to report ENC new editions as part of their future national reports.
- **Action HCA12/12 - HPWG** to analyse existing ENC coverage and respond to WEND-WG letter dated 18 September 2012 (HCA12-07.2B) concerning overlaps, gaps and large scale (major port/points of entry) coverage. Deadline: end January 2013.

7.3 Interaction with IOC

The IOC-IHO GEBCO Project and the IOC-IHO-SCAR IBCSO Project

Docs: HCA12-07.3A [IBCSO Report](#)
 HCA12-07.3B [Undersea Feature Naming in Antarctica](#)

There was no GEBCO representative nor a GEBCO report. IHB reported that GEBCO meetings and Science Day took place in Monaco during the first week of October 2012, in conjunction with an ABLOS conference. Also, a GEBCO “Cook Book” had been approved by Member States as new publication B-11.

IHB mentioned the IBCSO report (HCA12-07.3A) and [presented the IBCSO project](#), on behalf of its Chair, Dr. Hans Wener Schenke (AWI, Germany) who was unable to attend. Version 1 of this IHO-IOC-SCAR sponsored bathymetric mapping project was planned for completion in 2012. The associated Digital Terrain Model (DTM) will be made available to HCA in early 2013. IBCSO is under the coordination of the GEBCO Sub-Committee for Undersea Mapping (SCRUM).

IBCSO v1 is the first bathymetric data compilation of the entire Southern Ocean. It has been made from all available bathymetric data, grids, and maps provided by scientific institutions, hydrographic offices, and international data centres. The IBCSO database, which comprises more than 4.000 million data points, of which approx. 98 % originate from 174 cruises with multibeam data, will provide a homogenous and consistent grid to all potential users, such as hydrographic offices.

IHB, as SCUFN secretariat, reported on undersea feature naming activity in Region M (HCA12-07.3B). The GEBCO Gazetteer of Undersea Feature Names, Publication B-8, which is maintained by the GEBCO Sub-Committee on Undersea Feature Names (SCUFN), includes 204 names in Region M, for use on GEBCO products like IBCSO but also on INT charts and ENC’s. HCA members and observers are invited to submit undersea feature name proposals

to SCUFN, via the IHB as SCUFN secretariat, using the form available on the GEBCO website (www.gebco.net/data_and_products/undersea_feature_names/#features_link3).

Outcome:

- The Commission noted the two reports and the presentations.

7.4 Hydrographic surveying, nautical charting, nautical publications and information status.

A. Presentation of National Reports. Experiences with new techniques and equipment. Project proposals to speed-up compilation and production.

Docs: HCA11-07.4A National Reports, from [Argentina](#), [Australia](#), [Brazil](#), [Chile](#), [Ecuador](#), [Germany](#), [New Zealand](#), [Norway](#), [Russian Federation](#), [South Africa](#), [Spain](#), [United Kingdom](#), [United States](#), and [Uruguay](#)

HCA members briefly introduced their national reports. Presentations were given by [Australia](#), [Brazil](#), [Chile](#), [Ecuador](#), [New Zealand](#), [Spain](#), [United Kingdom](#) and [Uruguay](#). The following particulars were noted (see national reports for more details):

Australia – Passage soundings and multibeam survey data, provided by the Australian Antarctic Division, were being processed. In addition to the 8 ENC's already published in Region M, 12 further ENC's are planned for completion in 2013. Also 14 charts are planned for production in the next five years, including two INT charts.

Brazil – Cooperation with Peru on the production of INT 9125 was highlighted.

Chile – Surveys were conducted in March and April 2012 in Gerlache Strait, and further surveys in Nelson Strait and Caleta Gloria will follow, in support of the preparations for INT 9104. Bathymetric data was received from UK for the production of INT 9103 (Action HCA10/7). Publication of two ENC's, based on INT 9123 and 9124, is planned in 2013.

Ecuador – INT 9129 had just been published. Cooperation with Uruguay and Venezuela on Antarctic issues was highlighted.

New Zealand – A Hydrographic Data Infrastructure (HDI) has been established, using CARIS HPD. Bathymetric data used by LINZ for charting purpose originate from Navy, GNS and IAATO vessels. All NZ ENC's are planned for completion by June 2013. NZ suggested that the risk assessment analysis methodology being used for the SWPHC could be useful to HCA.

Peru – The Peruvian polar ship, to be used for surveying operations in Antarctica, is currently unavailable; she should be ready by end 2012. Cooperation with Brazil on INT 9125 was mentioned.

Spain – Surveys were conducted in the Deception Island area in January and February 2012, most of them (90%) by multibeam.

UK – Three multibeam surveys were carried out during the 2011-12 season by *HMS Protector*, around Deception Island and Potter Cove. INT 9153 and 9154 have been published and INT 9107 and 9132 are planned for 2013. In total, 18 ENC's are now available. A new edition of publication NP 9 "Antarctic Pilot" was published. Reference was made to the

following new publications: NP 5012 “ENC symbols used in ECDIS”, NP 231 “Guide to the practical use of ENCs” and its associated computer based version CBT 231.

In addition to its national report, UK gave a [presentation on “Crowd Sourced Bathymetry”](#) (CSB), a method of gathering bathymetric data through a depth and position (GPS) data logger installed onboard vessels of opportunity. The collected data is automatically uploaded to the web for processing, via WIFI, cellular or satellite broadband. This should result in better delivery of navigational situational awareness in areas of the world that are off the normal sea lanes of communications. UK reported on positive preliminary results from a trial conducted in the Antarctic Peninsula, using a data logger known as *Argus* and installed onboard the ship *National Geographic Explorer*.

HCA delegates noted and complimented the UK’s presentation on the potential benefits of CSB and the success of the trial in the Antarctic Peninsula during the 2011/12 season. In discussion, delegates considered the hardware installation, quality assurance and ownership issues and potential ‘not for navigation’ products and services associated with the CSB concept. The HCA welcomed the proposal to extend the trial into the 2012/13 season in conjunction with IAATO and looked forward to receiving the results. The HCA undertook to report the CSB concept and trial to HSSC and IRRC for consideration whether relevant technical standards might be required and the potential application of CSB in other regions such as the South West Pacific and the Caribbean.

USA –INT 9105 and 9062 have been published by NGA and the corresponding ENCs by NOAA. However, NGA will ensure responsibility for future ENC production in Region M.

Uruguay– Multibeam surveys were conducted in February 2012 in the area of Torre Island, in cooperation with Ecuador.

The Chair suggested that participating HOs provide the IHB with high resolution pictures illustrating their charting and surveying activities, to be used by the IHB in the frame of promotional operations, e.g. World Hydrography Day. This was agreed.

Outcome:

- The Commission noted all national reports and presentations.
- **Action HCA12/13 – HCA12 participants** to send a selection of high resolution images depicting nautical charting and surveying activities to the IHB for PR purposes.
Deadline: end December 2012.

B. C-55 Status: 15Hydrographic surveying, nautical charting and provision of MSI – Antarctic GIS

Docs: HCA12-07.4B [GIS for Antarctica – Progress Report](#)

IHB reported, via a presentation, on the Antarctic GIS database that is under development at the IHB. The database comprises a number of layers of information relating to Hydrography, e.g. surveys, INT charts or ENCs. It will provide metadata and geometry for each layer. The work for this development is being done by the officer seconded to the IHB by Japan (JHOD).

A [draft Antarctic database](#) is available on the IHO website (to be used with a GIS accepting kmz files, e.g. Google Earth).

As part of the Antarctic database/GIS development process, a Data Model has been prepared that is described in an [Excel table showing the metadata which are presented for each layer of information](#).

UK referred to a Marine Economic Infrastructure Programme (MEIP) being progressed in the MACHC and using “cloud” technology, further mentioning that MEIP could result in database development similar to that being made for Antarctica. IHB was invited to liaise with MEIP while progressing the Antarctic database.

The GIS database development was generally considered of utmost importance for the furtherance of surveying and nautical cartography activities relating to Antarctica. Therefore, the sooner the Antarctic database will be operational for use by HCA members & observers, and any other potential users, the better. Mid 2013 was agreed as the desired target date for completion of the project, if necessary through contract support.

Outcome:

- The Commission noted the report and the presentation.
- **Action HCA12/14 – IHB** to progress the HCA GIS database to an operational status by mid 2013, seeking contract support if required and appropriate.

7.5 Nautical Publications and Information. IHO/HCA web page.

As mentioned at Section 5, Routine Action HCA/6 – *List of nautical publications*, the conference had agreed that this list would be replaced with a list of links to national catalogues of nautical publications. See initial list at Annex H.

Outcome:

- The Commission agreed the replacement on the IHO website of a *List of nautical publications* with a list of links to national catalogues of nautical publications, as in Annex H.
- **Routine Action HCA/6 – IHB** to maintain the page on the IHO website listing the links to national catalogues of nautical publications, for HCA members publishing nautical publications in Region M.

7.6 Capacity Building Issues

Docs: HCA12-07.6A [CB Project Submission Model for Ships of Opportunity Visits](#)

Reference was made to the project submission model in HCA12-07.6A, for suggested CB-funded visits to vessels embarking to Antarctica to provide information on survey requirements and determine what equipment onboard could be used for data gathering. It was submitted to the CBSC meeting in June 2012; however no information was available on the outcome.

Australia indicated that the intention of this initiative was to improve the quality of bathymetric data in Antarctic waters through its collection by ships of opportunity. The Chair stressed that CBSC has never allocated funds for this kind of activity, limiting its support to maritime safety information in priority.

There was no support to pursue this action.

Outcome:

- The Commission decided not to pursue the request for CB funds in support of visits to vessels embarking to Antarctica.

8.- HCA SURVEY PRIORITIZATION WORKING GROUP (HSPWG)

Docs: HCA12-08B [Revised Long Term Survey Plan](#)
 HCA12-08C [Revised Survey Short List](#)

HSPWG Chair (WILLETT, UK) reported on HSPWG activities and drew attention to the revised HCA Long Term Survey Plan (HCA12-08B) and Survey Short List (HCA12-08C) that reflected new survey requirements in the Antarctic Peninsula.

Participants agreed that it would be useful to centralize all HCA members' planned surveys in a common database, in order to facilitate coordination and avoid overlaps. Ideally, this should also include surveys planned by non-IHO entities such as scientific institutions and commercial companies. A "Planned Surveys" ad hoc group was set during the conference, led by UK, to define the associated requirements. It resulted that planned survey information should at least include:

- A graphic showing the area to be surveyed;
- Dates of the survey;
- Whether it will be a single beam or multibeam survey;
- Scale of the survey;
- If possible, S-44 criteria.

It was agreed that the Australian "Hydroscheme" provides an appropriate format for the delivery of planned survey information and that a specific layer for such information should be included in the Antarctic database/GIS.

As mentioned at § 5 (Action HCA11/4), the Commission had agreed:

- The change of name from "Hydrographic Survey Prioritization Working Group (HSPWG)" to "Hydrography Priorities Working Group (HPWG)"; and
- The change of INT coordinator for Region M, from the IHB to HPWG, which will also coordinate the ENC scheming in Region M.

Revised terms of reference for the WG were therefore required. A draft was prepared during the conference and final terms of reference for HPWG were agreed. They are provided at Annex J.

UK kindly agreed to continue chairing HPWG. It was reminded that HSPWG was composed of representatives from Argentina, Australia, Brazil, Chile, Germany, Greece, New Zealand, South Africa, Spain, UK, USA, COMNAP and IAATO. It would therefore be useful for the HDWG Chair to ask for confirmation of HPWG membership.

HPWG Chair suggested, via a presentation, that a Maritime Shipping Routes (MSR) scheme be developed for the South Orkney Islands. This was agreed.

Outcome:

- The Commission noted the report and the two papers.
- The Commission agreed the revised HCA Long Term Survey Plan (HCA12-08B) and Survey Short List (HCA12-08C).
- The Commission agreed that a “planned surveys” layer should be included in the Antarctic database/GIS under development at the IHB, and that the Australian “Hydroscheme” provided an appropriate format for the exchange of planned survey information.
- The Commission agreed the change of name from “Hydrographic Survey Prioritization Working Group (HSPWG)” to “Hydrography Priorities Working Group (HPWG)”.
- The Commission agreed revised terms of reference for HPWG, as at Annex J.
- The Commission agreed that a MSR scheme be developed for the South Orkney Islands.
- **Action HCA12/15 – IHB** to request HCA members to provide details of their planned surveys for 2013 to the HPWG Chair as soon as possible; required details to be based on Australian Hydroscheme format. Deadline: mid-November 2012.
- **Action HCA12/16 – IHB** to provide access to the information on HCA members’ planned surveys for 2013, to IAATO and other relevant entities. Deadline: end November 2012.
- **Action HCA12/17 – IHB** to include a layer of information on the Antarctic GIS for national survey programmes in Antarctica. Deadline: July 2013.
- **Action HCA12/18 - HPWG** to develop a Maritime Shipping Route (MSR) scheme for the South Orkney Islands. Deadline: end January 2013.

9.- ANY OTHER BUSINESS

Furuno-Pelagos Inc. (VENTURA) gave a [presentation “Fugro Services: Marine Expertise and Experience in Hydrography”](#).

The Chair noted that polar test data sets would be required as part of the next edition of IHO publication S-64 “IHO Test Data Sets for ECDIS” and informed that this matter would be discussed at a forthcoming workshop to be attended by key ECDIS makers (London, 15-16 October 2012).

10.- TIME AND PLACE OF NEXT CONFERENCE

The 13th HCA conference was tentatively planned in early December 2013 in Cadiz, Spain², with New Zealand or IHB as fall back.

The Commission gratefully accepted an offer from Ecuador to host the 14th HCA conference in early December 2014.

² The Spanish Hydrographic Office, Instituto Hidrográfico de la Marina (IHM), subsequently confirmed that IHM would host HCA13 on 4-6 December 2013 in Cadiz.

Outcome:

- 13th HCA conference to be hosted by the Instituto Hidrográfico de la Marina (IHM) from 4-6 December 2013 in Cadiz, Spain.
- 14th HCA conference to be hosted by the Instituto Oceanográfico de la Armada (INOCAR), Ecuador, in early December 2014.

11.- APPROVAL OF ACTION LIST

The conference reviewed the list of actions arising from HCA12. The agreed list is at Annex E.

12.- CLOSURE

On behalf of the conference, the Chair warmly thanked the *Servicio de Oceanografía, Hidrografía y Meteorología de la Armada (SOHMA)*, of Uruguay, for the excellent arrangements for HCA12. He also thanked all participants and observers for their valuable contribution to the meeting. He concluded that, in his view, the meeting was very successful.

The meeting closed at 14:00 on 12 October 2012.

LIST OF ACRONYMS

| | |
|--------|--|
| ABLOS | Advisory Board on the Law of the Sea (IHO-IAG) |
| ARGUS | Autonomous Remote Global Underwater Surveillance |
| ATCM | Antarctic Treaty Consultative Meeting |
| ATS | Antarctic Treaty Secretariat |
| AWI | Alfred-Wegener-Institut für Polar- und Meeresforschung (Germany) |
| C-55 | Status of Hydrographic Surveying and Nautical Charting Worldwide (IHO publication) |
| CB | Capacity Building |
| CBSC | Capacity Building Sub-Committee (IHO) |
| COMNAP | Council of Managers of National Antarctic Programmes |
| CSB | Crowd Source Bathymetry |
| DTM | Digital Terrain Model |
| ENC | Electronic Navigational Chart |
| GEBCO | General Bathymetric Chart of the Oceans (IHO-IOC) |
| GIS | Geographic Information System |
| GPS | Global Positioning System |
| HCA | Hydrographic Committee on Antarctica (IHO) |
| HMS | Her Majesty Ship (UK) |
| HPWG | Hydrography Priorities Working Group (HCA – formerly, HSPWG) |
| HSPWG | HCA Survey Prioritisation Working Group (now replaced with HPWG) |
| IAATO | International Association of Antarctic Tour Operators |
| IBCSO | International Bathymetric Chart of the Southern Ocean (IOC-IHO-SCAR) |
| IHB | International Hydrographic Bureau |
| IHO | International Hydrographic Organization |
| IMO | International Maritime Organization |

| | |
|--------|--|
| INT | International (Charts) (IHO) |
| IOC | Intergovernmental Oceanographic Commission (UNESCO) |
| IRCC | Inter Regional Coordination Committee (IHO) |
| JHOD | Japan Hydrographic and Oceanographic Department |
| LINZ | Land Information New Zealand |
| MACHC | MESO American & Caribbean Sea Hydrographic Commission (IHO) |
| MARPOL | MARine POLLution (IMO convention) |
| MEIP | Marine Economic Infrastructure Programme |
| MOU | Memorandum OF Understanding |
| MSI | Maritime Safety Information |
| MSR | Maritime Shipping Route |
| NAV | Sub-Committee on Safety of Navigation (IMO) |
| NGA | National Geospatial-intelligence Agency (USA) |
| NOAA | National Oceanographic and Atmospheric Administration (USA) |
| S-11 | Guidance for the Preparation and Maintenance of INT Chart Schemes, and Catalogue of INT Charts (IHO publication) |
| S-64 | IHO Test Data Sets for ECDIS (IHO publication) |
| SCAR | Scientific Committee on Antarctic Research |
| SCRUM | Sub-Committee on Regional Undersea Mapping (GEBCO) |
| SCUFN | Sub-Committee on Undersea Feature Names (GEBCO) |
| SOHMA | Servicio de Oceanografía, Hidrografía y Meteorología de la Armada (Uruguay) |
| SOLAS | Safety Of Life At Sea (IMO convention) |
| WEND | Worldwide ENC Database (IHO) |

LIST OF PARTICIPANTS

| I. Members | Name | E-mail |
|-----------------------|--|--|
| Australia | Rod NAIRN | rod.nairn@defence.gov.au international.relations@hydro.gov.au |
| Brazil | Carlos Augusto MEDEIROS DE ALBUNQUERQUE | medeiros.albuquerque@dhn.mar.mil.br |
| Chile | Enrique SILVA Osvaldo MORALES | esilva@shoa.cl omorales@shoa.cl |
| Ecuador | Rafael CABELLO PENAFIEL | inocar@inocar.mil.ec rafael_cabello@hotmail.com |
| New Zealand | Stuart CAIE | scaie@linz.govt.nz |
| Peru | Diego GURREONERO | diego_gurreonero@hotmail.com |
| Spain | José Ramón FERNÁNDEZ DE MESA Y TEMBOURY | jrfmesa@oc.mde.es |
| United Kingdom | Nick LAMBERT Andrew WILLETT Tim LEWIS | nicholas.lambert@ukho.gov.uk andy.willett@ukho.gov.uk tim.lewis@ukho.gov.uk |
| United States | John J. HAUMANN Jr. (Vice Chair) | John.J.Haumann@nga.mil |
| Uruguay | Gustavo MUSSO Pablo TABAREZ Jose DOMINGUEZ Alejandro MARTINEZ | sohma_jefe@armada.gub.uy sohma@armada.mil.uy sohma_sub_jefe@armada.mil.uy pablotabarez@hotmail.com sohma_hid_jefe@armada.mil.uy sohma_ayu_jefe@armada.mil.uy |
| II. IHB | Name | E-mail |
| | Robert WARD (Chair) Michel HUET (Secretary) | Robert.ward@iho.int michel.huet@iho.int |
| III. Observers | Name | E-mail |
| COMNAP | Albert LLUBERAS | alexllub@iau.gub.uy |
| IAATO | Stephen WILKINS | stephenwilkins@hotmail.com |
| Fugro-Pelagos | Don VENTURA | dventura@fugro.com |

LIST OF DOCUMENTS

| Document | Content | Responsible |
|----------------|--|---|
| HCA12-01A | List of Documents | Secretary |
| HCA12-01B rev1 | List of Participants | Secretary |
| HCA12-02A | HCA Membership and Observers List | Secretary |
| HCA12-03A rev1 | Agenda | Chairman / Secretary |
| HCA12-03C | Programme | Uruguay |
| HCA12-05A rev1 | Status of Actions List from the 11 th HCA Meeting | Secretary |
| HCA12-06.2A | COMNAP Report | COMNAP |
| HCA12-06.3A | IAATO Report (to ATCM35) | IAATO |
| HCA12-06.4A | SCAR Report | SCAR |
| HCA12-07.1A | INT Chart Scheme and Production Status for Region 'M' | Secretary |
| HCA12-07.1B | INT Charts in Progress or Not Produced | Secretary |
| HCA12-07.1C | Layout of INT Production Status for Region 'M' | Secretary |
| HCA12-07.1D | Justification for two new proposed INT charts - Action HCA11/12 | UK |
| HCA12-07.1E | Proforma Bathymetric Data Request Form – Action HCA11/9 | UK |
| HCA12-07.2A | ENC Schemes and Production Status in Antarctica | IHB |
| HCA12-07.3A | GEBCO Report | GEBCO |
| HCA12-07.4Aa | National Report, Argentina | Argentina |
| HCA12-07.4Ab | National Report, Australia | Australia |
| HCA12-07.4Ac | National Report, Brazil | Brazil |
| HCA12-07.4Ad | National Report, Chile | Chile |
| HCA12-07.4Ae | National Report, Ecuador | Ecuador |
| HCA12-07.4Ag | National Report, Germany | Germany |
| HCA12-07.4Aj | National Report, New Zealand | New Zealand |
| HCA12-07.4Ak | National Report, Norway | Norway |
| HCA12-07.4Al | National Report, South Africa | South Africa |
| HCA12-07.4Am | National Report, Spain | Spain |
| HCA12-07.4An | National Report, United Kingdom | UK |
| HCA12-07.4Ao | National Report, United States | USA |
| HCA12-07.4Ap | National Report, Uruguay | Uruguay |
| HCA12-07.4Aq | National Report, Russian Federation | Russia |
| HCA12-07.4B | GIS for Antarctica – Progress Report | IHB |
| HCA12-07.6A | CB Project Submission Model for Ships of Opportunity Visits - Action HCA11/5 | South Africa (lead), Australia, Argentina |
| HCA12-08B | Revised Long Term Survey Plan (September 2012) | HSPWG Chair |
| HCA12-08C | Revised Survey Short List (September 2012) | HSPWG Chair |

| | INFORMATION DOCUMENTS | |
|------------|--|-----------|
| HCA12-INF1 | Current HCA Statutes | Secretary |
| HCA12-INF2 | Minutes of the 11 th HCA Meeting (Hobart, Australia, October 2011) | Secretary |
| HCA12-INF3 | IHO Report submitted to ATCM-35 (Hobart, Australia, 2012) | IHB |
| HCA12-INF4 | Outcomes from ATCM-XXXV | IHB |
| HCA12-INF5 | IAATO Overview of Antarctic Tourism: 2011-12 Season and Preliminary Estimates for 2012-13 Season | IAATO |

AGENDA

- 1.- Opening**
Docs: HCA12-01A *List of Documents (IHB)*
HCA12-01B *List of Participants (IHB)*

- 2.- HCA Membership Status**
Docs: HCA12-02A *HCA Membership and Observers List (IHB)*
HCA12-INF1 *Current HCA Statutes (IHB)*

- 3.- Approval of Agenda**
Docs: HCA12-03A *Agenda (IHB)*
HCA12-03B *Programme (Uruguay)*

- 4.- Election of Vice-Chairman**

- 5.- Status of List of Actions resulting from HCA-11**
Docs: HCA12-05A *Status of Actions List from the 11th HCA Meeting (IHB)*
HCA12-INF2 *Minutes of the 11th HCA Meeting (Hobart, Australia, 2011) (IHB)*

- 6.- Relevant International Organizations' Report**
 - 6.1 ATCM
Docs: HCA12-06.1A *ATCM Secretariat Report*
HCA12-INF3 *IHO Report submitted to ATCM-XXXV (IHB)*
HCA12-INF4 *Outcomes from ATCM-XXXV (IHB)*

 - 6.2 COMNAP
Docs: HCA12-06.2A *COMNAP Report*

 - 6.3 IAATO
Docs: HCA12-06.3A *IAATO Report (to ATCM35)*
HCA12-INF5 *IAATO Overview of Antarctic Tourism: 2011-12 Season and Preliminary Estimates for 2012-13 Season*

 - 6.4 SCAR

- 7.- HCA Activities in the light of the IHO Work Program**
 - 7.1 INT chart scheme: progress made since last meeting and actual charting status; new requirements and modifications proposed to the scheme (S-11).
Docs: HCA12-07.1A *INT Chart Scheme and Production Status for Region 'M' (IHB)*
HCA12-07.1B *INT Charts in Progress or Not Produced (IHB)*
HCA12-07.1C *Layout of INT Production Status for Region 'M' (IHB)*
HCA12-07.1D *Justification for two new proposed INT charts – Action HCA11/12 (HSPWG Chair)*
HCA12-07.1E *Proforma Bathymetric Data Request Form – Action HCA11/9 (UK)*

 - 7.2 ENC scheme and production status
Doc: HCA12-07.2A *ENC Schemes and Production Status in Antarctica (IHB)*

HCA12-07.2B ENC Gaps and Overlaps, and Regional Assessments for Cruise Ship Priorities (WEND-WG Chair)

7.3 Interaction with IOC:

- The IOC/IHO GEBCO Project

Docs: *HCA12-07.3A IBCSO Report (IBCSO Chair)*

HCA12-07.3B Undersea Feature Naming in Antarctica (IHB)

7.4 Hydrographic surveying, nautical charting, nautical publications and information status.

- Presentation of National Reports. Experiences with new techniques and equipment. Project proposals to speed-up compilation and production.

Docs: *HCA12-07.4A National Reports*

- C-55 Status: hydrographic surveying, nautical charting and provision of MSI

Docs: *HCA12-07.4B GIS for Antarctica – Progress Report (IHB)*

7.5 Nautical Publications and Information. IHO/HCA web page.

7.6 Capacity Building Issues

Docs: *HCA12-07.6A CB Project Submission Model for Ships of Opportunity Visits – Action HCA11/5 (South Africa (lead), Australia, Argentina)*

8 - HCA Survey Prioritisation Working Group

Docs: *HCA12-08B Revised Long Term Survey Plan (HSPWG Chair)*

HCA12-08C Revised Survey Short List (HSPWG Chair)

9.- Any other business

10.- Time and Place of next Meeting

11.- Approval of Action List

12.- Closure

ACTIONS RESULTING FROM THE 12th HCA MEETING

NEW ACTIONS

| Agenda Item | Action | Details | Deadline |
|-------------|---------|---|--------------|
| 2. | HCA12/1 | IHB , as HCA Secretariat, to finalize editorial amendments, such as, references to Resolution T1.3 at Appendix A, in the revised HCA Statutes adopted at HCA12 and promulgate an updated version of the Statutes on the HCA page of the IHO website. | Nov 2012 |
| 5. | HCA12/2 | NZ to circulate an initial draft to the Ships of Opportunity Guidelines WG by end October, for consideration and comments; then complete and circulate a first draft to all HCA members and observers by end December 2012 for comment. Final draft to be considered at HCA13. | End Dec 2012 |
| 5. | HCA12/3 | HCA Chair to circulate an initial draft text that may be used by HCA members to maintain as strong relationship as possible with their IMO national delegates in order to raise level of awareness of the need for improved hydrographic surveying and charting in Antarctica. | End Dec 2012 |
| 5. | HCA12/4 | HPWG , as INT chart and ENC coordinator for Region M, to develop a large scale ENC scheme (navigational purposes 4 and 5) and review the existing smaller scale schemes, and submit to HCA by correspondence for comments / approval. | Mid Mar 2013 |
| 5. | HCA12/5 | Subject to it being feasible, UK to prepare, in liaison with HCA Chair, an IHO/HCA submission to ATCM-36 raising awareness of the need for improved hydrographic surveying and charting in Antarctica; paper to be co-sponsored by HCA members through their ATCM delegates. | End Nov 2012 |
| 6.1 | HCA12/6 | HCA Chair to forward the proposed consolidated ATCM Recommendation concerning Hydrography in Antarctica to Ms. Rogan-Finnemore - leader of the review group established at ATCM-XXXV. | End Nov 2012 |
| 6.2 | HCA12/7 | HCA Chair to investigate options to establish liaison protocol between HCA and COMNAP. | End Dec 2012 |
| 7.1 | HCA12/8 | IHB to include two new INT charts in the INT chart scheme for Region M, as follows (limits as amended during HCA12): <ul style="list-style-type: none"> - Melchior Islands, scale 1:30 000, UK producer, post 2015 - NW accesses to English Strait, scale 1:25 000, unallocated producer | End Dec 2012 |
| 7.1 | HCA12/9 | IHB to invite India, Russia, China and Australia to comment on a proposal to include in the INT chart scheme for Region M, a new chart at medium scale, e.g. 1:150,000, in the area of Larsmann Hills, with approximate limits 68°S to 69°30'S and 75°E to 77°E. | End Dec 2012 |

| Agenda Item | Action | Details | Deadline |
|-------------|----------|--|---|
| 7.1 | HCA12/10 | UK , in cooperation with IHB , to investigate external funding opportunities to accelerate the Antarctic survey and charting programmes, including supporting scientific and environmental benefits. | IHB and UK to discuss in Monaco in early Dec 2012 |
| 7.2 | HCA12/11 | HCA members to report ENC new editions as part of their future national reports. | |
| 7.2 | HCA12/12 | HPWG to analyze existing ENC coverage and to respond to WEND-WG letter dated 18 September 2012 (HCA12-07.2B) concerning overlaps, gaps and large scale (major port/points of entry) coverage. | End Jan 2013 |
| 7.4 A | HCA12/13 | HCA12 participants to send a selection of high resolution images depicting nautical charting and surveying activities to the IHB for PR purposes. | End Dec 2012 |
| 7.4 B | HCA12/14 | IHB to progress the HCA GIS database to an operational status by mid 2013, seeking contract support if required and appropriate. | Mid 2013 |
| 8. | HCA12/15 | IHB to request HCA members to provide details of their planned surveys for 2013 to the HPWG Chair as soon as possible; required parameters to be based on those indicated in Australian Hydroscheme format. | Mid Nov 2012 |
| 8. | HCA12/16 | IHB to provide access to the information on HCA members' planned surveys for 2013, to IAATO and other relevant entities. | End Nov 2012 |
| 8. | HCA12/17 | IHB to include a layer of information concerning national survey programmes in Antarctica on the IHO Antarctic GIS. | Jul 2013 |
| 8. | HCA12/18 | HPWG to develop a Maritime Shipping Route (MSR) scheme for the South Orkney Islands. | End Jan 2013 |

ROUTINES ACTIONS

| Agenda Item | Action | Details |
|-------------|--------|---|
| | HCA/1 | IAATO to encourage IAATO members to provide the IHB with available bathymetric data, to enable improvement of the Antarctic chart coverage. |
| | HCA/2 | HOs (AR, AU, BR, CL, NZ, UK, ...), in liaison with IAATO, to arrange the visit of hydrographic surveyors to IAATO ships, when calling in ports on her way to Antarctica, or in Antarctica, to advise on the collection and rendering of hydrographic data. |
| | HCA/3 | HCA Members to contact and brief their ATCM national delegate(s) on the importance of improving hydrography and nautical charting for safety of navigation in Antarctica, and to support IHO reports to ATCM meetings. |
| | HCA/4 | IHB to maintain the page on the IHO website listing the links to national chart catalogues of HCA members publishing charts in Region M. |
| | HCA/5 | HCA members to ensure full diligence in data search prior to chart production, including IHO Data Centre for Digital Bathymetry (DCDB), GEBCO and other HCA members via proforma data request. |

| Agenda Item | Action | Details |
|-------------|--------|---|
| | HCA/6 | IHB to maintain the page on the IHO website listing the links to national catalogues of nautical publications, for HCA members publishing nautical publications in Region M. |

Revised HCA Statutes, with the agreed changes highlighted via “track changes”

STATUTES OF THE IHO HYDROGRAPHIC COMMISSION ON ANTARCTICA (HCA)

- Notes: 1) HCA Statutes were adopted at the 3rd HCA ~~Meeting~~Conference, IHB, Monaco, 8-10 September 2003. They were further revised at the 7th HCA ~~Conference~~Meeting, Buenos Aires, Argentina, 3-5 October 2007. A further revision of Article 3 (adding a mission statement) and 6.1 was agreed at the 12th HCA Conference, Montevideo, Uruguay, 10-12 October 2012.
- 2) **Signature Pages are on pp. 6-8, updated to 6 February 2009.**
- 3) Annex C (ATCM Resolution) and section 3.2 updated 25 November 2009.

Article 1

GENERAL

- 1.1 The IHO Hydrographic Commission on Antarctica (hereinafter referred to as “HCA”) is a special Hydrographic Commission of the International Hydrographic Organisation (IHO). The HCA is established in conformity with ~~Administrative IHO Resolution T-1.32/1997, as amended of the IHO~~ “Establishment of Regional Hydrographic Commissions (RHC)” (Appendix A) and shall be governed according to these statutes.
- 1.2 The HCA 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 HCA 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 HCA.
- 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 HCA. 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 HCA 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 HCA will be subject to the prior approval of the Chairman of the HCA. The Observers may take part in the discussions but shall not have voting rights.

Article 3

AIMS

~~The aims of the HCA, which is an integral part of the IHO, shall be:~~ The mission of the HCA is:

“To achieve the improvement of the quality, coverage and availability of nautical charting and other hydrographic information and services covering the region”.

This mission will be achieved by the following aims:

- 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 HCA to widen hydrographic activity in the region in accordance with Antarctic Treaty Consultative Meeting (ATCM) Resolution 5 of 2008 (Appendix C), and to encourage them to seek technical advice and assistance from the International Hydrographic Bureau (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 organization of hydrographic activities in the widest sense of the term.
- 3.4 To encourage Members, Associate Members and Observers forming the HCA 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 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 establish working groups to carry out studies, 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.

- 3.11 The HCA 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 HCA shall meet in plenary conference in the country of one of its Members or Associate Members, or such other venue as may be selected, 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 HCA, 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 HCA 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 by a Vice-Chairman from a Member State of the HCA. The Vice-Chairman shall be elected at the beginning of each conference by a simple majority of those Members present.
- 5.3 The IHB shall provide the Secretariat for the Commission 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 Commission since the last conference.
- 5.4 The Chairman will report the activities and future plans of the HCA 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

ORGANISATIONS OF CONFERENCES

- 6.1 The Chairman shall issue invitations at least ~~one year~~ six months before the conference.
- 6.2 Proposals to be included in the agenda of a conference shall be sent to the Chairman and Secretary 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 shall provide the Rapporteur and the secretarial facilities for the conference meeting.
- 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 organizations.

Article 7

CONFERENCE AGENDA

- 7.1 The Agenda shall be adopted by the HCA at the beginning of each conference.
- 7.2 The HCA 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 in Article 4.5.

- 8.3 Only Members are entitled to vote, each having the right to one vote. The exception to this rule is 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 a meeting of the Members and Associate Members of the HCA 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 HCA may propose amendments to the Statutes. The Chairman shall submit the proposal(s) by correspondence to all Members for voting. A simple majority of Members of HCA 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 the IHO and ATCM resolutions will be added to the Statutes, as appropriate, by the Chairman without the approval of the Members of the HCA. The changes would not constitute formal amendments to the Statutes.

Article 11

LANGUAGE OF THE HCA

- 11.1 The working language of the HCA shall be English.

Approved by the Commission at the IHB, Monaco, September 2003.

Amendments approved at the HCA-7, Buenos Aires, Argentina, October 2007.

[Amendments approved at the HCA-12 Montevideo, Uruguay, October 2012.](#)

Appendices:

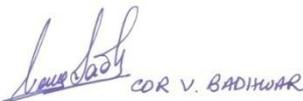
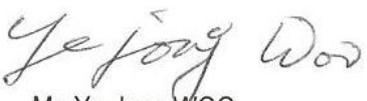
- A. ~~IHO Resolution T-1.3 of the IHO2/1997, as amended [Adopted by the XVI IHC, 2002]~~
- B. Geographic Limits of IHO INT Chart Region M
- C. Resolution [5](#) of the [31st](#) Antarctic Treaty Consultative Meeting 2008

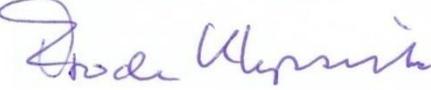
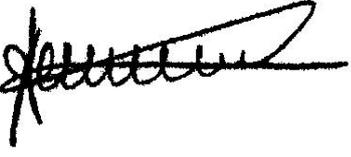
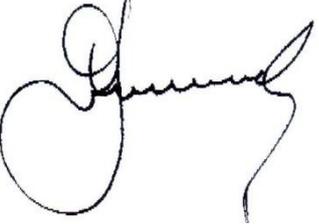
Signature Pages (Updated to 6 February 2009)

IHO HYDROGRAPHIC COMMISSION ON ANTARCTICA (HCA)

MEMBERS

| COUNTRY | SIGNATORY | DATE OF SIGNATURE |
|-----------|---|-------------------|
| Argentina |  Capt. Miguel Enrique CLEMENTS Director SHN | 29 March 2004 |
| Australia |  Capt. Bruce KAFER Director AHS | 9 September 2003 |
| Brazil |  Vadm. Edison LAWRENCE Mariath Dantas Director DHN | 6 November 2006 |
| Chile |  Capt. Pablo SALZMANN Pineda Acting Director SHOA | 27 February 2004 |
| China |  Capt. LIU Gongchen Executive Director-General, China MSA | 1 June 2005 |
| Ecuador |  CPTG-EM Mario PROAÑO Silva DIRECTOR DEL INSTITUTO OCEANOGRÁFICO DE LA ARMADA | 5 July 2006 |
| France |  IGA Yves DESNOES Director SHOM | 7 April 2004 |

| | | |
|-----------------|---|------------------|
| Germany |  Dr. Peter EHLERS President BSH | 2 September 2004 |
| Greece |  Commodore A. SKLAVIDIS Director HNHS | 26 August 2004 |
| India |  CDR V. BADHWAR Cdr. V. BADHWAR | 9 September 2003 |
| Italy |  Cdr. Paolo LUSIANI | 5 August 2003 |
| Japan |  Dr. Shigeru KATO Director JHOD | 2 September 2008 |
| Korea (Rep. of) |  Mr. Ye-Jong WOO Director General NORI | 7 November 2008 |

| | | |
|---------------------------|--|--------------------------|
| <p>New Zealand</p> |  <p>Mr. John SPITTAL Chief Topographer/Hydrographer LINZ</p> | <p>23 August 2004</p> |
| <p>Norway</p> |  <p>Mr. Frode KLEPSVIK Director NHS</p> | <p>10 September 2003</p> |
| <p>Peru</p> |  <p>Radm Augusto ZEGARRA Director DHN</p> | <p>31 October 2007</p> |
| <p>Poland</p> | | |
| <p>Russian Federation</p> |  <p>Radm. Boris FRIDMAN Deputy Chief HDNO</p> | <p>27 August 2004</p> |

| | | |
|-----------------------|---|--------------------------|
| <p>South Africa</p> |  <p>Capt. Abri KAMPFER Director SANHO</p> | <p>27 October 2003</p> |
| <p>Spain</p> |  <p>Capt. Fernando QUIROS Cebría Director IHM</p> | <p>17 December 2003</p> |
| <p>Ukraine</p> | | |
| <p>United Kingdom</p> |  <p>Dr. D. Wynford WILLIAMS Director UKHO</p> | <p>17 September 2003</p> |
| <p>USA</p> |  <p>Radm. Christian ANDREASEN Chief Hydrographer, NGA</p> | <p>11 May 2007</p> |

| | | |
|------------------|--|------------------------|
| <p>Uruguay</p> |  <p>Capitán de Navío (CG) Orestes PEREYRA Jefe del Servicio de Oceanografía Hidrografía y Meteorología de la Armada</p> | <p>28 August 2008</p> |
| <p>Venezuela</p> |  <p>CN. ANA ROSENSIL SUÁREZ PACHECO Directora de Hidrografía y Navegación</p> | <p>6 February 2009</p> |

RESOLUTION T1.32/1997 OF THE IHO, AS AMENDED
AS ADOPTED BY THE XVITH INTERNATIONAL HYDROGRAPHIC CONFERENCE 2002

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 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.

2 bis Where Capacity Building is required in a region, RHCs are recommended to establish an internal body to deal with CB matters and to designate a focal point to ensure continuity in the CB process. This part-time allocation to assist RHCs should come primarily and ideally from an HO within the region. If that is not possible then the RHC might agree to request support from another RHC or an HO that might wish to take that responsibility.

These regional contact points, the responsibilities of which should be given directly and in detail by the RHC concerned, shall have the support of the RHCs; shall be nominated having in mind the importance of continuity; shall be in permanent contact with the corresponding RHC Chairman as well as with the CBC Chairman. Ideally should be a CBC member with access to RHC meetings.

In the absence of any other viable alternative and despite its limited human resources availability a request of support could be requested to the IHB.

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.

8.- The following structure is to be used for National Reports made to those RHCs that wish to receive such reports:

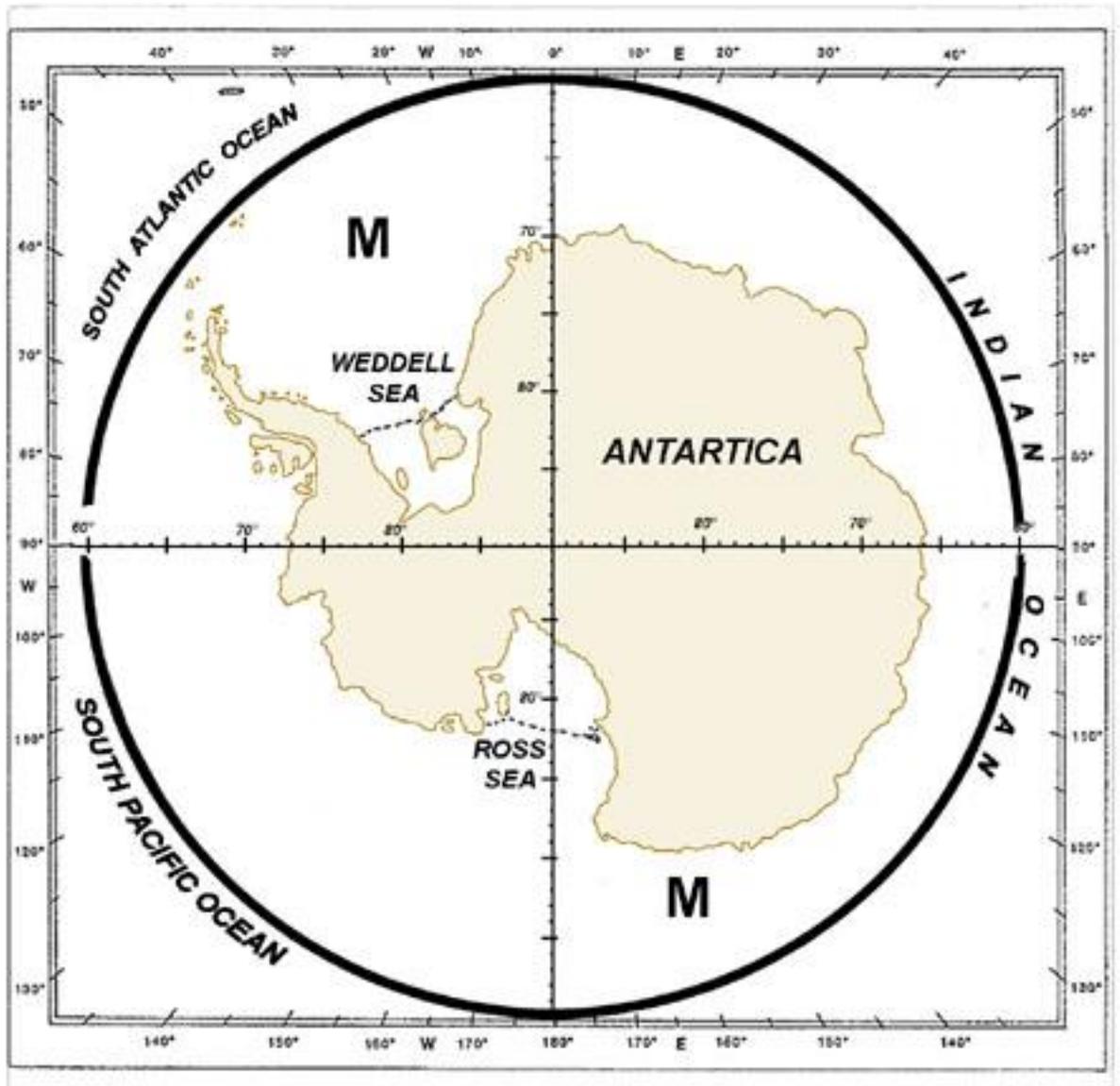
Structure for National Reports to Regional Hydrographic Commissions

Executive summary

| | |
|---|---|
| 1. Hydrographic Office / Service: e.g.reorganization | General, including updates for the IHO Yearbook |
| 2. Surveys: | Coverage of new surveys. New technologies and /or equipment. New ships Problems encountered |
| 3. New charts & updates: | ENCs ENC Distribution method RNCs INT charts National paper charts Other charts, e.g. for pleasure craft Problems encountered |
| 4 New publications & updates: | New Publications Updated publications Means of delivery, e.g. paper, digital Problems encountered |
| 5. MSI | Existing infrastructure for transmission New infrastructure in accordance with GMDSS Master Plan Problems encountered |
| 6. <u>SC-55</u> | <u>Note : Use the WWNWS template for this section</u> |
| 7. Capacity Building | Latest update (Tables) Offer of and/or demand for Capacity Building Training received, needed, offered |

- Status of national, bilateral, multilateral or regional development
- projects with hydrographic component. (In progress, planned, under evaluation or study)
- Definition of bids to IHOCBC
8. Oceanographic activities
- General
- GEBCO/IBC's activities
- Tide gauge network
- New equipment
- Problems encountered
9. Other activities
- Participation in IHO Working Groups
- Meteorological data collection
- Geospatial studies
- Disaster prevention
- Environmental protection
- Astronomical observations
- Magnetic/Gravity surveys
- International
- Etc.
10. Conclusions

GEOGRAPHIC LIMITS OF IHO INT CHART REGION M



31st Antarctic Treaty Consultative Meeting (ATCM), Kyiv, Ukraine, 01-13 June 2008**Resolution 5 (2008)****IMPROVING HYDROGRAPHIC SURVEYING AND CHARTING TO SUPPORT SAFETY OF NAVIGATION
IN THE ANTARCTIC REGION**

The Representatives,

Considering that reliable hydrographic data and nautical charts are essential to safe maritime operations;

Noting the increase in marine traffic, particularly tourist vessels, in the Antarctic region;

Concerned about the increased risk of harm to ships, persons and the environment in inadequately charted waters in the region;

Noting that the collection of accurate survey data will improve navigational safety and support scientific research;

Recognising the role of the International Hydrographic Organization Hydrographic Commission on Antarctica (HCA) in the coordination of hydrographic charting in the Antarctic region and the value of cooperating with relevant expert bodies;

Recommend that their Governments:

1. cooperate with the HCA to improve hydrographic surveying and charting in the Antarctic region, including working to:
 - a. clarify HCA requirements for the collection of hydrographic data of sufficient quality for use in the development of electronic navigation charts, and
 - b. identify priority areas for the collection of additional hydrographic and bathymetric data;
2. encourage their national programme vessels and other vessels, as appropriate, to collect hydrographic and bathymetric data on all Antarctic voyages, as practicable;
3. forward any Antarctic hydrographic and bathymetric data collected to the relevant international chart producer for charting action; and
4. endeavour to find additional resources towards improving hydrographic surveying and charting in the Antarctic region.

Links to National Chart Catalogues:

New Zealand:

<http://www.linz.govt.nz/hydro/charts/nz202-chart-catalogue>

España:

http://www.armada.mde.es/ArmadaPortal/page/Portal/ArmadaEspañola/ciencia_ihm_1/02_ProductosServicios--03_CatalogoCartas

Ecuador:

http://www.inocar.mil.ec/cartografia/plan_cartografico.php

Australia:

<http://www.hydro.gov.au/prodserv/charts/charts.htm>

USA:

http://msi.nga.mil/NGAPortal/MSI.portal?nfpb=true&pageLabel=msi_portal_page_68&catCode=01

UK:

<http://www.ukho.gov.uk/ProductsandServices/ADCatalogue/pages/home.aspx>

Brasil:

<http://www.mar.mil.br/dhn/chm/publicacao/catalogo/catalogo.htm>

Perú:

<http://www.dhn.mil.pe/CatalogoCartas/catalogo.html>

Chile:

http://www.shoa.cl/servicios/descargas/pdf/catalogo_03.pdf

Uruguay:

<http://www.armada.mil.uy/cartas-nauticas.html>

Links to National Catalogues of Nautical Publications**New Zealand:**

www.linz.govt.nz/hydro (can be used for chart catalogue and publications)

USA:

msi.nga.mil/ngaportal/msiportal

Australia:

www.hydro.gov.au (then chose products and services for enter publications or charts)

UK:

www.ukho.gov.uk/productsandservices/ADCatalogue/pages/home.aspx

Brasil:

www.dhn.mar.mil.br

Perú:

Amazonia: www.dhn.mil.pe/shna/descarga/publicaciones_nauticas.pdf

Chile:

www.shoa.cl/servicios/descargas/pdf/catalogo_03.pdf

Consolidated text for an ATCM Resolution on Hydrography
(as agreed by the 12th HCA Conference, Montevideo, Uruguay, October 2012)

Strengthening Cooperation in Hydrographic Surveying and Charting of Antarctic Waters

Considering that reliable hydrographic data and nautical charts are essential to safe maritime operations;

Noting the increase in marine traffic, particularly tourist vessels, in the Antarctic region;

Concerned about the increased risk of harm to ships, persons and the environment in inadequately charted waters in the region;

Noting that the collection of accurate survey data will improve navigational safety and support scientific research;

Recognising the role of the International Hydrographic Organization Hydrographic Commission on Antarctica (HCA) in the coordination of hydrographic surveying and nautical charting in the Antarctic region and the value of cooperating with relevant expert bodies;

The Representatives,

Recommend that their Governments:

1. Increase their mutual collaboration in the hydrographic surveying and charting of Antarctic waters in order to contribute to the economic sustainability through safety of navigation, protection of the Antarctic environment and scientific activities; and coordinate their activities within the framework of National Antarctic Programmes, national hydrographic offices and the IHO Hydrographic Commission on Antarctica, as appropriate.
2. Note the lack of hydrographic surveys, nautical charting and the increase in vessel traffic, and collaborate with the IHO through the HCA to achieve comprehensive, updated hydrographic survey and charting through the INT chart scheme.
3. Cooperate with the HCA to clarify requirements for the collection of hydrographic data of sufficient quality for use in the development of electronic navigational charts being cognisant of the emerging challenges and opportunities faced in the digital navigation era; and identify priority areas for the collection of additional hydrographic and bathymetric data.
4. Encourage national programme vessels and ships of opportunity, to collect hydrographic and bathymetric data on all Antarctic voyages, as practicable; to forward any hydrographic and bathymetric data collected to the relevant international chart producer for charting action; and to endeavour to find additional resources to improve hydrographic surveying and charting in the Antarctic region.

HCA HYDROGRAPHY PRIORITIES WORKING GROUP (HPWG)

Revised Terms of Reference

(as agreed by the 12th HCA Conference, Montevideo, Uruguay, October 2012)

Preamble

Recognising that accurate and up to date navigational products are essential to support safe maritime activities,

Acknowledging that the HCA recommends that mariners navigate in areas where suitable navigational products exist,

Recognising the limited resources available for hydrographic surveying and charting and the limited weather window for conducting Antarctic survey operations,

Acknowledging the increasing levels of Antarctic maritime activities,

The HCA establishes an Hydrographic Priorities Working Group (HPWG), as follows:

Aims

To create and maintain a prioritized charting and survey plan for the Antarctic region to support science, the protection of the environment and safety of life at sea, and to coordinate INT Chart and ENC production boundary allocation.

Purpose

To support improvements to the standard of Antarctic charting where it is needed most.

Outputs

1. A prioritised list of charting requirements, taking into account:
 - a. Sensitivity of the Environment
 - b. Needs of scientific research
 - c. Demands of the tourism industry
 - d. Other identified maritime activities
2. A prioritised list of survey requirements to support the prioritised list of charting requirements.
3. An INT chart schema created and maintained in accordance with the guidance in S-11 Part A.
4. An ENC chart production schema.
5. Updated "Guidelines for Collection and Rendering of Hydrographic Data for non-survey vessels"

Method

6. Record and list areas of significance for urgent charting or chart improvement and present this in a tabular and graphical format.
7. Refine and maintain the previously identified main shipping routes (MSR) and branch corridors defined by usage categories.

Considerations

1. The following factors will be considered:
 - a. The frequency of vessel visits/transits

- b. The status (ZOC) of the current chart
 - c. The currency of the charting with respect to whether the existing survey data is incorporated
 - d. Draught of shipping
 - e. Number of people onboard
 - f. Density of Traffic
 - g. Type of Vessels
 - h. Hydrographic conditions; tides, currents
 - i. Climatological conditions: sea ice, winds
2. For convenience of analysis the Antarctic should be considered in regions as follows:
- a. Region M-A - Western Region (Antarctic Peninsula) 0-180 west
 - b. Region M-B – Eastern Region 0–180 East