

**IHO Hydrographic Commission on Antarctica (HCA)**  
**9th Meeting, Simon's Town, Cape Town, South Africa, 12-14 October 2009**

**MINUTES**

- Notes: 1) A list of acronyms used in these Minutes is at Annex A.  
2) A list of all actions from HCA9 is at Annex E.  
3) Names of persons are written in full the first time they appear in the Minutes. Afterwards, only the surname is shown.

**1.- OPENING**

Docs: [HCA9-01A](#) rev.4 List of Documents  
[HCA9-01B](#) rev.2 List of Participants

The 9<sup>th</sup> Meeting of the Hydrographic Commission on Antarctica (HCA) took place in Simon's Town, Cape Town, South Africa, from 12 to 14 October 2009. The meeting was hosted and organized by the South African Navy Hydrographic Office (SANHO), and was held at the Quayside Hotel. Twelve HCA Member States<sup>1</sup>, out of 23, were represented at this meeting, plus observers from COMNAP, IAATO, GEBCO/IBCSO and the South African DEAT. In total, 25 delegates were in attendance.

Participants were welcomed by Rear Admiral Robert HIGGS, Flag Officer Fleet of the South African Navy. He stressed the importance of hydrography in Antarctica and that hydrography was a remarkable area for cooperation between all concerned States. Opening Remarks were provided by Captain Hugo GORZIGLIA, IHB Director and Chairman of HCA. He noted that HCA was meeting in South Africa for the second time. He reminded that HCA aims at increasing the safety of life in Antarctic waters, as well as at protecting the marine environment in this region. He mentioned the good progress of work by HCA members and the increasing awareness of the need to improve hydrography in Antarctica. He noted that HCA continues to receive very useful contributions from several international organizations. He thanked South Africa for the wonderful venue and the hard work in organizing this meeting. He welcomed Republic of Korea and Venezuela as new members of HCA, which brought to 23 the total number of HCA signatory members. He reported that apologies for absence had been received from Argentina, India, Japan and USA.

There followed the HCA Chair's report. He delivered an HCA report to the 32<sup>nd</sup> meeting of ATCM (Baltimore, USA, April 2009), where the 50<sup>th</sup> anniversary of ATCM was celebrated. This was a unique opportunity for HCA members to raise the importance of hydrography to ATCM. An HCA seminar was organized in the frame of the 21<sup>st</sup> COMNAP council (Punta Arenas, Chile, August 2009) which was very well received by participants. On this occasion, an improved form for the collection and rendering of hydrographic data by ships of opportunity was developed. He noted the revitalisation of the HCA Survey Prioritization Working Group, thanks to the valuable efforts of the UK Hydrographic Office. He emphasized that any new hydrographic data collected should be made available to the HCA member producing the concerned INT chart. He invited each HCA member to be proactive in improving nautical cartography and hydrographic surveys in Antarctica.

The HCA Secretary, Ing. en chef Michel HUET (IHB), reviewed the documentation available to the meeting, noting that all documents were posted on the IHO website ([www.iho-ohi.net/mtg\\_docs/rhc/HCA/HCA9/HCA9Docs.htm](http://www.iho-ohi.net/mtg_docs/rhc/HCA/HCA9/HCA9Docs.htm)).

Outcome:

- The Commission noted the documents introduced.

**2.- HCA MEMBERSHIP STATUS**

Docs: [HCA9-02A](#) HCA Membership and Observers List

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<sup>1</sup> Australia, Brazil, Chile, France, Germany, Korea (Rep of), New Zealand, Norway, South Africa, Spain, UK and Venezuela.

[HCA9-INF1](#)      *Current HCA Statutes*

The Chair indicated that HCA currently comprised 23 IHO Members States, including the recent joining of Rep of Korea and Venezuela. Noting that 12 HCA members were in attendance – one third of the total number is required – he mentioned that decisions could be taken by a simple majority of members present, that is seven, should a vote be necessary.

Outcome:

- The Commission noted the two papers.

**3.- APPROVAL OF THE AGENDA**

Docs: [HCA9-03A](#) rev.4 *Agenda*  
[HCA9-03B](#) rev.1 *Annotated Agenda*  
[HCA9-03C](#) rev.2 *Time Table*

The Chair proposed, and this was agreed, adding the following items under Agenda 9 'Any Other Business':

- 9.1 HCA Seminar at IAATO 2010
- 9.2 HCA Presentation at the AT Experts Meeting, Wellington, NZ, Dec 2009
- 9.3 Other international events of interest to HCA

Outcome:

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

**4.- ELECTION OF VICE-CHAIRMAN**

The Chair asked for volunteers, reminding that an HCA Vice-Chair must be elected at each HCA meeting. Australia (Comdre Rod NAIRN), seconded by South Africa (Capt Abri KAMPFER), proposed that RAdm Ian MONCRIEFF (UK) continues as HCA Vice-Chair, which was kindly accepted by RAdm MONCRIEFF. He was re-elected by acclamations.

Outcome:

- RAdm Ian MONCRIEFF (United Kingdom) was re-elected unanimously as Vice-Chairman of HCA.

**5.- STATUS OF LIST OF ACTIONS RESULTING FROM THE 7TH HCA MEETING**

Docs: [HCA9-05A](#) rev.3 *Status of Actions List from the 8<sup>th</sup> HCA Meeting*  
[HCA9-INF2](#) *Minutes of the 8<sup>th</sup> HCA Meeting, Niteroi, RJ, Brazil, 2008*  
[HCA9-INF3](#) *IHO Report submitted to ATCM-32*  
[HCA9-INF4](#) *Form for "Collection and Rendering of Hydrographic Data obtained by SOO*  
*in Antarctic Waters"*

The Chair and the Secretary reviewed all actions arising from the 8<sup>th</sup> HCA meeting. Most of the actions had been completed and the pending ones were being addressed by this meeting under various agenda items. Particular comments were made as follows (Action nos. are those in HCA9-05A):

- **Action 8/3 – Provision of hydrographic services in Antarctica by ATCM signatories.** The Chair reported that the message was conveyed to ATCM via the HCA report to ATCM-32. Australia (NAIRN) said that HCA coordinates the activities of governments without referring to territorial claims. UK (MONCRIEFF) noted that SOLAS refers to ships, not to delimitations. The Chair suggested not to make reference to SOLAS for the time being, which was agreed. IAATO (Dr Kim CROSBIE) stated that HCA was internationally recognized as

the coordinating body for hydrographic activities in Antarctica and she strongly encouraged HCA to continue raising Antarctic hydrographic issues to ATCM.

- **Action 8/4 - HCA representative to IBCSO.** No response had been received from DNO to the IHB letter on this topic. It was proposed that Dr. Hans Werner SCHENKE (Germany), Chairman of IBCSO, would represent the HCA matters within the IBCSO Editorial Board. This was unanimously supported and Dr SCHENKE kindly accepted to be the HCA representative to IBCSO.
- **Action 8/5 – HCA Performance Indicators.** The Chair reported that Decision No. 6 of the 4<sup>th</sup> Extraordinary IHC in June 2009 (Preparation of annual cycles of the new strategic mechanism) was being progressed with the kind assistance of Norway. He suggested waiting for implementation of that decision at IHO level, before considering its application to HCA. This was agreed.
- **Action 8/6 – Briefing of National Delegations to ATCM.** France, UK, Chile, New Zealand, Germany, Brazil, Australia and South Africa reported that they had regular contacts with their national delegates to ATCM. Rep of Korea and Norway had no information on such contacts. The Chair proposed that briefing of national delegations to ATCM, in advance of ATCM meetings, to seek for higher priority for hydrography in their national programmes, should be a standing action for HCA members. This was agreed.
- **Action 8/7 - Use of Ships Of Opportunity.** On request from UK (MONCRIEFF), IAATO (CROSBIE) confirmed that the HCA form for “Collection and Rendering of Hydrographic Data” would be used by IAATO ships during the 2009-10 season. IAATO (CROSBIE and Capt Paul BEGGS) suggested that, when an IAATO ship calls in a port, a representative of the relevant HO should visit this ship and provide advice on how best to collect bathymetric data, further noting that some 95 % of IAATO ships were departing from Ushuaia (Argentina). It was agreed that the IHB would coordinate such initiative.
- **Action 8/15 – Training Material on Antarctic Navigation Courses.** Chile (LtCdr Enrique SILVA) reported that the relevant information from Chile would be made available to the IHB during the meeting, in view of the IHB posting it on the IHO website.
- **Action 8/17 – HCA Seminar at COMNAP-21, August 2009.** The Chair reported that this seminar was very productive, with three speakers from IHB (GORZIGLIA), UK (MONCRIEFF) and Chile (SILVA). A significant outcome was the development of an improved form for “Collection and Rendering of Hydrographic Data” by ships of opportunity (see [www.iho.int/mtg\\_docs/rhc/HCA/HCA\\_Misc/HCA\\_SPWG/Data\\_Rendering\\_Form\\_2009.doc](http://www.iho.int/mtg_docs/rhc/HCA/HCA_Misc/HCA_SPWG/Data_Rendering_Form_2009.doc)). UK (MONCRIEFF) believed that the seminar should have an influence on operational people at COMNAP. It was agreed that all presentations made at the HCA seminars held at ATCM31 (2008) and COMNAP21 (2009) should be made available on the IHO website.

**Outcome:**

- The Committee agreed the Minutes of HCA8 as a true record.
- The Committee noted the list of actions reviewed.
- Dr. Hans Werner SCHENKE (Germany) was nominated as HCA representative to IBCSO.
- Development of HCA Performance Indicators was deferred, pending more progress in the implementation of Decision No. 6 of 4EIHC.
- **Action 9/1 - HCA Chair**, in liaison with Argentina, Chile and New Zealand, and with cooperation from IAATO, to coordinate the visit of hydrographic surveyors from Argentina, Chile and New Zealand to at least one IAATO ship, when calling in ports on her way to Antarctica, to advise on the collection and rendering of hydrographic data, and report experience at HCA10.
- **Action 9/2 – HCA Secretary** to post on the IHO website all presentations given at the HCA seminars which took place during ATCM31 and COMNAP21.
- **Action 9/3 – Dr. Schenke** (Germany) to represent HCA at the IBCSO and report back to HCA10.

## 6.- RELEVANT INTERNATIONAL ORGANIZATIONS' REPORT

### 6.1 Antarctic Treaty Secretariat (ATS) ([www.ats.aq](http://www.ats.aq))

Docs: [HCA9-06.1A](#) *ATCM Secretariat Report*

There was no representative of the ATCM Secretariat at the meeting. The Chair briefly referred to the compendium of items in HCA9-06.1A, taken from the ATCM32 proceedings and of interest to HCA. He noted that environment protection matters are taking a significant part of the ATCM agenda. By contrast, the word "hydrography" is rarely mentioned. Therefore, much work should be done to promote hydrography in ATCM circles. It was agreed that more emphasis should be given to environmental aspects in the HCA reports to ATCM meetings.

COMNAP (Mr Henry VALENTINE) drew attention to several items of HCA9-06.1A relating to Search And Rescue (SAR). A workshop "Towards Improved Search and Rescue Coordination and Response in the Antarctic" took place in Valparaiso, Chile, in August 2008 (see Doc. HCA8-INF7), involving Chile, Argentina, South Africa, Australia and New Zealand. A second workshop on this matter was planned in Buenos Aires, Argentina, in November 2009. He suggested that HCA be represented at future events of this group.

New Zealand (Mr Adam GREENLAND) gave a brief presentation on an Antarctic Treaty Meeting of Experts (ATME) that would be held in Wellington, New Zealand, from 8 to 11 December 2009. This meeting would address the management of ship-borne tourism in Antarctica and should provide an opportunity for Antarctic Treaty and maritime experts to work together to develop recommendations for the ATCM, in order to reduce the risks of a humanitarian and environmental disaster occurring in the Antarctic Treaty area as the result of a serious incident involving a tourist vessel. Hydrography should be a key topic at this meeting. The HCA Chair informed that he would participate and give presentations on the role of HCA and the need for cooperation between IHO and ATCM.

The 33<sup>rd</sup> ATCM will take place in Punta del Este, Uruguay, from 03 to 14 May 2010.

#### Outcome:

- The commission noted the report.
- **Action 9/4 – HCA Chair** to modify the layout and content of HCA reports to ATCM so as to address environmental and scientific issues in addition to safety of navigation issues. Avoid specific references to SOLAS responsibilities for the time being.
- **Action 9/5 – HCA Chair**, in liaison with New Zealand, to ensure the delivery of complementary presentations at the ATME in Wellington, NZ, December 2009.

### 6.2 Council of Managers of National Antarctic Programs (COMNAP) ([www.comnap.aq](http://www.comnap.aq))

Docs: [HCA9-06.2A](#) *COMNAP Report*

COMNAP (VALENTINE) introduced the 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. In addition to the SAR workshops mentioned at § 6.1, recent COMNAP activities of interest to HCA included the development of a Ship Position Reporting System (SPRS) database, with cooperation expected from IAATO (see [www.comnap.aq/sprs/help](http://www.comnap.aq/sprs/help)). He noted that the two actions from HCA8 involving COMNAP had been successfully completed, i.e. improvement of the form for "Collection and Rendering of Hydrographic Data" by ships of opportunity (Action 8/7) and organisation of the HCA Seminar at COMNAP21 (Action 8/17). He mentioned that COMNAP intended

to appoint a “project manager” to coordinate the necessary procedures and measures in support of HCA-related actions, and avoid duplication of efforts.

Outcome:

- The Commission noted the report.
- **Action 8/7 – HCA Chair** to send a letter of thanks to COMNAP for their constant support to HCA activities.

### 6.3 International Maritime Organization (IMO) ([www.imo.org](http://www.imo.org))

There was no IMO representative at, nor IMO report to the meeting.

### 6.4 International Association of Antarctica Tour Operators (IAATO) ([www.iaato.org](http://www.iaato.org))

Docs: [HCA9-06.4A](#) IAATO Report  
[HCA9-INF5](#) IAATO Overview of Antarctic Tourism 2008-2009 Antarctic Season

IAATO (CROSBIE) reported that, in total, approximately 27,000 passengers landed in Antarctica during the 2008-09 season. Some decrease of the numbers of visitors was expected in the coming years. She mentioned that the establishment of a vessel tracking scheme was progressing. She reported two incidents where ships run aground. She reiterated that IAATO was willing to contribute to improving hydrographic surveying in Antarctica via ships of opportunity.

There followed a discussion on why this offer by IAATO to make use of ships of opportunity, which has been on since 2004, did not lead to any concrete action. Reasons put forward included that logistics were difficult to organize and costly, meaning this could be no value for money; and that there was no spare person available because surveyors are on the job. There was general feeling that the limited resource in personnel within HOs and the cost of transferring people and equipment to the embarking place were the main obstacles to taking advantage of IAATO's offer.

Venezuela (LtCdr Arturo José CARMONA Rojas) and New Zealand (GREENLAND) expressed interest in using IAATO ships of opportunity. The Chair indicated that the IHO Capacity Building Fund could possibly be used to support such initiatives. Australia (NAIRN) suggested, rather than waiting for HOs to contact IAATO ships to organise the transfer of a hydrographer, that a ship's captain ask for a hydrographer to come onboard to do surveys in an area in need. It was agreed that detailed coordination would be left to the interested HOs.

It was agreed that the organisation of an HCA seminar should be considered on the occasion of the next IAATO annual meeting, similarly to what was done at ATCM31 and COMNAP21 (see also § 9.1).

Outcome:

- The Commission noted the report and the information paper.
- **Action 9/7 – HCA Chair** to send a letter of thanks to IAATO for their constant support to HCA activities; to coordinate with IAATO and presenters, the delivery of a presentation at the next IAATO annual meeting, Turin, Italy, June 2010.
- **Action 9/8 – HCA Chair**, with cooperation from IAATO, to invite HCA members with no hydrographic platform to take advantage of IAATO offer to make use of their ships to conduct surveys in Antarctica. Detail coordination to embark hydrographic surveyors and equipment shall be made by interested HCA members directly with IAATO.
- See also Action 9/1.

## 6.5 Scientific Committee on Antarctic Research (SCAR) ([www.scar.org](http://www.scar.org))

Dr SCHENKE gave a brief verbal report. Dr Mike SPARROW has become the new SCAR executive director in replacement of Dr Colin SUMMERHAYES. SCAR activities of interest to HCA focussed on data management through the Sub-Committee on Antarctic Data Management (SCADM), and on geographic information through the Sub-Committee on Antarctic Geographic Information (SCAGI). SCADM developed a coastline from Landsat and Spot images, while SCAGI compiled a coastline from Radarsat images. An accuracy of approximately 100 metres for these coastlines was expected. He also mentioned the work on the SCAR Composite Gazetteer of Antarctica (CGA) which is operated by people in Australia and Italy, and its harmonisation with the IHO-IOC GEBCO Gazetteer of Undersea Feature Names.

### Outcome:

- The Commission noted the verbal report.

## 6.6 Intergovernmental Oceanographic Commission (IOC) (<http://ioc.unesco.org>)

There was no IOC representative at, nor IOC report to the meeting.

## 6.7 South African National Antarctic Programme (SANAP)

Docs: [HCA9-06.7A](#) SANAP Report

Mr. Richard SKINNER, from the South African Department of Environmental Affairs & Tourism (DEAT), gave a presentation on the South African National Antarctic Programme. SANAP activities include biological, physical and earth sciences, meteorological observations and satellite communications. Geographical scope extends to Marion Island (SA), Gough Island (UK), Tristan Da Cunha (UK) and the South African scientific base Sanae IV on the Dronning Maud Land in Antarctica. SANAP operates the Research and Supply vessel Agulhas.

### Outcome:

- The Commission noted the presentation.

## 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 (M-11).

Docs: [HCA9-07.1A](#) rev.2 INT Chart Scheme and Production Status for Region 'M'  
[HCA9-07.1B](#) rev.1 INT Charts in Progress or Not Produced  
[HCA9-07.1C](#) rev.2 Layout of INT Production Status for Region 'M'

Referring to HCA9-07.1A, IHB (HUET) reported on progress in INT chart coverage in Region 'M' over the past year. As of September 2009, 60 INT Charts had been produced out of the 102 INT charts of the scheme. Two charts were published since HCA8, i.e. new chart INT 9047 by Japan and new edition of INT 9150 by Brazil, and 25 INT Charts (New Charts or New Editions) were planned for publication from 2009 to 2013. He drew attention to HCA9-07.1C providing a lay-out of the status of INT chart production in Antarctica, as of September 2008.

The Commission then reviewed HCA9-07.1B focusing on INT charts in progress or not produced. UK (MONCRIEFF) suggested that particular attention should be made on areas most visited by ships. The

Chair remarked that those HCA members not yet involved in INT charting may wish to take responsibility for some INT charts, e.g. Rep of Korea. The review results are summarized in the table below.

INT No.	Producer	Scale 1:	Comments
908	GB	2 000 000	Publication planned after 2015, as there is not enough survey data available.
9062	US	200 000	HCA agreed that US be asked to confirm the need for this chart.
9105	US	25 000	HCA considered that this chart is useful to access Palmer Station and agreed that US be asked to clarify their intentions.
9140	AR	150 000	Publication planned after 2015. UK said this chart is needed.
9103	CL/GB	50 000	Publication planned in 2013.
9104	CL/GB	50 000	Publication planned in 2011.
9107	GB	50 000	Publication planned after 2015.
9108	CL	50 000	No plan for these charts for the time being.
9110	CL	30 000	
9131	GB	75 000	No plan for these charts for the time being, as there is not enough survey data available.
9132	GB	75 000	
9151	CL	200 000	Publication planned in 2017, in cooperation with Brazil.
9152	CL	200 000	
9157	CL	150 000	Publication planned in 2020.
9161	CL	150 000	No plan for these charts for the time being.
9162	CL	150 000	
9164	CL	150 000	
9114	GB	various	UK will consider if/when this chart can be published, possibly in cooperation with Chile.

**Outcome:**

- The Commission noted the two reports and the paper.
- **Action 9/9 - HCA Chair** to clarify with USA:
  - a) the need for INT 9062 (Scale 1:200 000, SE Weddell Sea) and, if confirmed, how its production can be progressed.
  - b) their intentions regarding INT 9105 (Scale 1:25 000, Palmer Station and approaches), noting that HCA considers this chart as very appropriate.
- **Action 9/10 – UK**, in liaison with Chile, to reconsider the production plan for INT 9114 (Plans in Antarctic Sound).
- See also Action 9/11.

## 7.2 ENC scheme and production status

Doc: [HCA9-07.2A](#) *ENC Schemes and Production Status in Antarctica*

IHB (HUET) presented the ENC production status for Region 'M', as described in HCA9-07.2A. From the information available at the IHB, status of ENC production, as of September 2009, was as follows:

HCA Member	ENC published	ENC planned
<b>Chile</b>	- 1 coastal ENC (CL3MA850) - 4 harbour ENCs (CL5MA800, CL5MA860, CL5MA870 and CL5MA890).	
<b>UK</b>	- 12 overview ENCs (GB104024A, GB104024B, GB104064A, GB104064B, GB104075, GB14065W, GB14065E, GB104063, GB104074, GB104907, GB104213 and GB103200). - 4 coastal ENCs (GB372110, GB372220, GB372210 and GB372010). - 4 approach ENCs (GB47211A, GB47201A, GB43593A and GB43593B). - 2 harbour ENCs (GB57211A and GB57211B).	- 1 coastal ENC (GB368506).
<b>France</b>	- 1 approach ENC (FR475940). - 1 harbour ENC (FR575930). - 1 berthing ENC (FR67593A).	- 1 overview ENC (FR175910). - 1 general ENC (FR275920).
<b>Norway</b>	- 1 overview ENC (NO1A5500).	
<b>Australia</b>	- 2 approach ENCs (AU468062 and AU468063). - 1 harbour ENC (AU5600P1).	- 4 overview ENCs (AU190060, AU190090, AU190120 and AU190150). - 4 general ENCs (AU270150, AU270151, AU270152, and AU270153). - 1 coastal ENC (AU367142). - 5 approach ENCs (AU466110, AU467110, AU468077, AU469077, and AU468142). - 2 harbour ENCs (AU5603P1 and AU601P1).
<b>Italy</b>	- 2 coastal ENCs (IT300884 and IT300881) - 1 harbour ENC (IT400881).	
<b>Germany</b>	- 1 general ENC (DE260001) - 1 coastal ENC (DE3600010).	- 1 overview ENC based on INT 905
<b>Brazil</b>	- 1 harbour ENC (BR525121)	
<b>New Zealand</b>		- 1 overview ENC based on INT 65. - 1 general ENC based on INT 900. - 4 coastal ENCs based on INT 9008, INT 9009 and INT 9012. - 5 approach ENCs based on INT 9001, INT 9003, INT 9006 and INT 9007. - 4 harbour ENCs based on INT 9002, INT 9003 and INT 9006.



IHB (HUET) reminded that an ENC scheme for bands 1 “overview” and 2 “general” was agreed in 2007 (HCA Letter 1/2007 refers). He reported that an ENC scheme for band 3 “coastal” was agreed in 2009 (Action 8/13 from HCA8 refers). All schemes are available from the IHO website.

It was confirmed that producers of ENCs should be those of the corresponding INT charts. The Chair drew attention to terms of reference for Regional Charting Groups (to be re-named as International Charting Coordination Working Groups (ICCWG)), which were under consideration by HSSC. It is intended that ICCWG will eventually coordinate the development and maintenance of regional INT chart schemes and ENC schemes. He noted that the IHB is already playing this role for Region M (Antarctica).

Outcome:

- The Commission noted the report.
- **Action 9/11 – HCA Chair and Secretary** to reinforce that, in accordance with the WEND Principles, INT chart producers for INT Region M are assumed to also be the producers of the corresponding ENCs and that those ENCs should be distributed through RENCs. Include this matter as an agenda item for HCA10.
- See also Action 9/17.

### 7.3 Interaction with IOC

#### A. The IOC-IHO GEBCO Project

Docs: [HCA9-07.3A](#) *Undersea Feature Naming Status for Region ‘M’*  
[HCA9-07.3B](#) *GEBCO Report*

Dr SCHENKE, being a member of the GEBCO Guiding Committee, reported on GEBCO matters. The 2009 GEBCO meetings were hosted by the French HO in Brest from 22 September to 2 October. Dr. Robin FALCONER (NZ) and Dr. Chris FOX (USA) were elected as Chair and Vice Chair of the Guiding Committee, respectively. Ms. Lisa TAYLOR (USA) was elected as Vice Chair of the GEBCO Sub-Committee on Undersea Feature Names (SCUFN). A new Interim GEBCO Sub-Committee for Regional Undersea Mapping (ISCRUM) was set up, which should address all existing IOC regional mapping projects, including IBCSO. The GEBCO / Nippon Foundation Student Program was reported as being successful. A new global 0.5 arc-minute bathymetric grid had been posted on the GEBCO website ([www.gebco.net](http://www.gebco.net)). About 50 name proposals were considered by SCUFN, of which 28 were selected for inclusion into the IHO-IOC Gazetteer. A web version of the Gazetteer was being implemented. The 2008 edition of IHO Publication B-6 *Standardisation of Undersea Feature Names* is now available in English, French, Russian, Japanese, and Korean; a Spanish version is under preparation.

Ing en chef HUET, being Secretary of SCUFN, reported on undersea feature naming matters in Antarctica. A list of the 196 names included in the GEBCO Gazetteer for the HCA area is contained in HCA9-07.3A. This includes 4 new names in the HCA area, i.e. East Adare Ridge, West Adare Ridge, Tangaroa Seamount and Nathaniel B. Palmer Seamount, all located in the Ross Sea. Undersea feature name proposals, which are available from the IHO website

([www.iho-ohi.net/mtg\\_docs/com\\_wg/SCUFN/SCUFN\\_Misc/SCUFN\\_Form\\_English.doc](http://www.iho-ohi.net/mtg_docs/com_wg/SCUFN/SCUFN_Misc/SCUFN_Form_English.doc)), should be submitted to the IHB, as SCUFN Secretariat. He drew attention to the following rule which was introduced in the 2008 edition of B-6: “Names of living persons will normally not be accepted, in accordance with the recommendation in UNCSGN Resolution VIII/2. In the rare cases where names of living persons are used (surnames are preferable), they will be limited to those who have made an outstanding or fundamental contribution to ocean sciences.”

Outcome:

- The Commission noted the two reports.

**B. The IBCSO Project, an IOC-IHO-SCAR Project**

Docs: [HCA9-07.3C](#) *IBCSO Report*

Dr SCHENKE, as IBCSO Chair, gave a [presentation](#). IBCSO is a joint IOC-IHO-SCAR project, which is supported by the SCAR Standing Scientific Group on GeoSciences (SSG-GS), HCA and GEBCO. The primary goal of IBCSO is the production of a high quality bathymetric chart of the Southern Ocean Marine geodata base for Antarctic sciences. A secondary goal is to combine this data base with existing spatial geophysical, geological, glaciological, oceanographic data sets, etc., forming the Southern Ocean Geographic Information System (SOGIS). Upcoming actions will include the followings:

- 3<sup>rd</sup> IBCSO Meeting, Bremerhaven, Germany, 30 November 2009;
- Consistent bathymetric database to be prepared in the 4<sup>th</sup> quarter 2009;
- Digital elevation model to be prepared in the 2<sup>nd</sup> and 3<sup>rd</sup> quarter 2010;
- Printed maps to be prepared in the 3<sup>rd</sup> quarter 2010;
- Publication of the compiled IBCSO dataset in Pangaea; and
- Submission of IBCSO publications to relevant geoscientific journals.

key Dr. SCHENKE stressed that bathymetric data contribution by HOs and other data centres to IBCSO is to the success of this project.

Outcome:

- The Commission noted the report and the presentation.
- **Action 9/12 – HCA Chair**, with cooperation from IBCSO Chair, to invite IHO Members, the marine scientific community and any relevant national and international body to provide bathymetric data to IBCSO.

**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: *HCA9-07.4A National Reports*

The following HCA members briefly presented their national reports: [Australia](#), [Brazil](#), [Chile](#) ([PPT](#)), [France](#) ([PPT](#)), [Germany](#), Korea Rep. ([PPT](#)), [New Zealand](#) ([PPT](#)), [Norway](#), [South Africa](#), Spain ([PPT](#)), [UK](#) and Venezuela ([PPT](#)). The following particulars were noted (see national reports for more details):

**Australia** - No surveying / charting activity was undertaken in Antarctica since HCA8. A multibeam system was installed on the Australian Antarctic survey vessel “Wyatt Earp”. Two INT charts are planned for release in 2011. Liaison has been unsuccessful with India to obtain data for the production of INT 9130.

Regarding the latter point, UK (MONCRIEFF) suggested that there may be a need to review the concept of “Primary Charting Responsibility”, as it is sometimes difficult for a PCR HO to obtain data from institutions in other countries, even from other HOs. As this remark was valid for other RHCs, the Chair proposed to raise this issue at the IRCC, which was agreed.

**Brazil** – The area of King George Island was surveyed during the season 2008-09. The aim was to obtain full survey coverage of Brazilian charts 25121 and 25122, taking also account of the HCA long term survey plan.

**Chile** – Surveys were conducted in the area of Chilean chart 14220, to be published in end 2009. The multibeam system installed on the Chilean ice breaker “Oscar Viel” is now fully operational and used extensively. Publication 3035 on pilotage in Antarctica has been released and relevant information will be passed to the Secretary for posting on the IHO website. A two-week course on Antarctic waters operations, in English, has been set up.

UK (MONCRIEFF) informed that UKHO would provide data for a chart in Gerlache Strait, for which Chile is producer.

**France** – No surveys were conducted in the HCA area since HCA8. However data exchange took place between France and Australia.

On request from Germany (SCHENKE), France (Ms Gwladys THEUILLON) clarified that the data collected by the multibeam equipped French vessel Marion Dufresne is held by the Paul Emile Victor institute (IPEV), France or the laboratory in charge of the survey.

**Germany** – Surveys were conducted in the Weddell Sea, in the area of INT 905. Charts INT 9055 and 9057, as well as the corresponding ENCs, have been published, as a result of a fruitful AWI-BSH cooperation.

**Korea (Rep. of)** – The national report was presented by the Korean Polar Institute (KOPRI)’s representative (Dr Sung-Hyun PARK). The presentation addressed KOPRI’s activities at King Sejong Station and with the multibeam equipped new Korean ice breaker “Araon”. Any bathymetric data collected by KOPRI will be made available to the Korean HO (KHOA). KHOA’s representative (Mr Hyun JUNG) mentioned that Rep. of Korea will make endeavours for activities in the Region M for the INT charts.

**New Zealand** – Land Information New Zealand (LINZ) has a new Chief Executive, Mr Colin MacDonald. As a result of LINZ restructuration, Hydrography and IHO relationship are now under responsibility of the “LINZ Hydrographic Services”. Recent achievements included surveys in the Ross Sea and publication of INT 9003 (NZ 14903), of Scott Island.

**Norway** - No surveys or charting activities in Antarctica took place since HCA8. However, Norway is committed to produce INT 909 by 2011.

**South Africa** – A new edition of INT 9056 would be published by end 2009.

**Spain** – A revised “Spanish chart scheme” of the southern part of the South Shetlands Islands was presented. Spain (Capt Francisco PÉREZ Carrillo de Albornoz) mentioned that this revision includes some changes in the limits of INT 9121. It was agreed that HCA members would be consulted on this matter.

**UK** – ECDIS training is becoming a priority. Reference was made to the European INSPIRE directive and to Spatial Data Infrastructures (SDIs) in general, suggesting that HCA should pay attention to these matters.

**Venezuela** – DHN cooperates with Uruguay on Antarctic matters. Venezuela’s area of interest is Maxwell Bay and Hope Bay. Bathymetric data already collected by Venezuela is available to the relevant charting authorities<sup>2</sup>. DHN has no platform to conduct surveys in Antarctica; they rely on other countries’ ships.

The Chair mentioned that national reports were also received from [Japan](#), [India](#) and [Russia](#).

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<sup>2</sup> Venezuela provided the IHB with survey data during the meeting, which was subsequently supplied to the concerned charting authorities, i.e. Argentina, Brazil, Chile and UK.

Outcome:

- The Commission noted all national reports.
- **Action 9/13 – HCA Chair** to submit a working paper to the next IRCC meeting in relation to the concern expressed by Australia and France on unsatisfactory bathymetric data sharing practice. The aim is to reinforce data exchange among HCA members (possible extension to RHCs members), to improve INT chart compilation and production.
- **Action 9/14 – UK** to provide bathymetric data collected in Gerlache Strait to Chile, for production of charts INT 9103 (Proj. 2013) and INT 9104 (Proj. 2011).
- **Action 9/15 – HCA Secretary** to circulate to HCA members for comments, Spain's request for change of limits for INT 9121.

**B.**     S-55 Status: hydrographic surveying, nautical charting and provision of MSI  
 Docs:    [HCA9-07.4B](#)     *C-55 Status and GIS for Antarctica – Progress Report*

IHB (HUET) reported that the two pages of IHO Publication C-55, relating to Antarctica, had been updated by the IHB (Annex A to HCA9-07.4B). They needed however further updating, in particular on the status of MSI. Information on hydrographic surveys reflects their poor status.

He also referred to the “GIS for Antarctica” under development at the IHB, and which will include various layers of meta-information pertaining to Hydrography, e.g. surveys, INT charts or ENCs. The GIS will include metadata and geographical coordinates. Development of this GIS has been delayed due to lack of staff resource available at the IHB. However, a GIS specialist has been kindly seconded to the IHB by Japan from October 2008 and he has been able to start working on the Antarctic GIS from August 2009. It is hoped that the task will be completed before HCA10.

Outcome:

- The Commission noted the report.

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

IHB (HUET) briefly described the list of nautical publications on Antarctica, which appears on the IHO website (HCA page). It currently includes information provided by Argentina, Australia, Chile, France, South Africa and UK. HCA members were encouraged to continue populating this list.

of Referring to the “Links to other websites giving information on activities in Antarctica”, on the HCA page the IHO website, IBCSO (SCHENKE) suggested that a link be added to the IBCSO website (<http://www.ibcso.org/>), which was agreed.

Outcome:

- The Commission noted the verbal report.

### 7.6     **Capacity Building Issues**

The Chair described the procedures to be followed for capacity building initiatives to be financially supported by CB fund. Proposals should come from RHCs. As mentioned at § 6.4, CB funds could possibly be used to support a team embarking on a ship of opportunity; however, he felt that HCA was not ready to make such a proposal at this meeting. Further, CB support is normally targeted to improving skills in hydrography, nautical charting and MSI, and to carrying out technical visits, as

opposed to conducting hydrographic surveys. As a result, an HCA request for CB support to SOO operations could fail.

The Chair also referred to an IHO-IMO-WMO coordinating meeting on capacity building issues and mentioned that the main region of attention for CB efforts was currently Africa.

The SOO issue was re-discussed in the light of possible CB support. Two options were identified:

1. An HO representative paying a technical visit to an IAATO ship, when she is calling in a port, e.g. Valparaiso (Chile), Buenos Aires (Argentina) or Christchurch (New Zealand), on her way to Antarctica.
2. Hydrographic surveyor(s) actually embarking on an IAATO ship to do surveys in Antarctica.

It was confirmed that the first option would be coordinated by the Chair, in liaison with IAATO and the concerned HOs (Action 9/1), and that the second option would be available to interested HOs, in particular those HOs with no hydrographic platform (Action 9/8).

**Outcome:**

- See Actions 9/1 and 9/8.

## 8.- HCA SURVEY PRIORITIZATION WORKING GROUP

Docs: [HCA9-08Aa](#) HSPWG Report (1<sup>st</sup> part)  
[HCA9-08Ab](#) HSPWG Report (2<sup>nd</sup> part)  
[HCA9-08B](#) rev.1 HCA Long Term Survey Plan  
[HCA9-08C](#) rev.1 HCA Survey Short List

The HSPWG Chair (Mr Andrew WILLETT) presented the first part of the report. The HCA 'long term survey plan' and 'survey short list' had been updated and were provided in HCA9-08B and HCA9-08C, as well as on the IHO website. Recalling that Maritime Safety Routes (MSR) were developed in the Antarctic Peninsula, based on ships usage rates, e.g. IAATO statistics, he mentioned that the revised survey plans take into consideration the MSRs on one hand and the INT chart scheme and production status for Region M on the other hand. He stressed that the future GIS for Antarctica should be a key tool in planning surveys and chart production (INT and ENC).

HSPWG Chair (WILLETT) felt that multiple chart coverage in a given area is an issue as it confuses the mariner and discredits the INT chart concept, e.g. there are several charts covering Deception Island. It was agreed that the Chair would clarify this matter with all chart producers in Antarctica.

Chile (SILVA) indicated that, in the years to come till 2018, Chile intends to concentrate on their international commitments, e.g. INT charts to be produced by Chile.

HSPWG Chair (WILLETT) presented the second part of the report, focusing on the survey status in some MSRs in the most visited zones, e.g. Deception Island or Gerlache Strait, and showing which areas have been surveyed and which areas remain to be surveyed. It was agreed that similar work should be undertaken by HSPWG on the Antarctic continent as well, with contributions from Australia, France, New Zealand, Russia and USA. Identification of priority areas and data available in those areas will be the first step of this work.

Outcome:

- The Commission noted the report and the two papers.
- **Action 9/16 – HSPWG** (UK lead), with cooperation from COMNAP (obs.) and IAATO (obs.), to continue to progress its mandate and the preparation of graphics reflecting the status of hydrographic surveys assets, in the short list priority areas and related INT Charts. Provide these graphics to the **HCA Secretary** for their uploading to the HCA web page. Consequently, **HCA Chair** to coordinate filling the gaps with HCA members.
- **Action 9/17 – HCA Chair** to send a letter to all HCA members reminding the objective of INT Charts and the role of INT Chart Producer. Invite HCA Members to avoid the production of different national charts covering the same area and to reinforce the provision of the most reliable and updated INT Chart of such area. Highlight that duplication of charts of the same area confuses the mariner.
- **Action 9/18 - HSPWG** (UK lead), with cooperation from COMNAP (obs.) and IAATO (obs.), to seek future survey intentions, sounding data holdings and ship track data outside the Antarctic Peninsula region from HCA members and other agencies (such as COMNAP and IAATO), to determine a prioritized list of survey requirements.
- **Action 9/19 – HSPWG Chair** to ask the current HSPWG members, i.e. AU, CL, AR, ES, GR, DE, US, to confirm their continued participation. Ask all remaining HCA members if they wish to participate.

**9.- ANY OTHER BUSINESS****9.1 HCA Seminar at IAATO 2010**

The Chair suggested that an HCA seminar be delivered at the next IAATO annual meeting (21-24 June 2010, Torino, Italy), similar to that provided at ATCM31 and COMNAP21. The seminar could address the following topics:

- What HCA is doing to fill the gap;
- What operators can do;
- How operators can do.

Suggestions were made by IAATO (CROSBIE) to focus on how IAATO can help, by Australia (NAIRN) to seek feedback from the IAATO audience, and by South Africa (KAMPFER) to explain practically how IAATO ships can collect data and to store the data collected in a special database held at the IHB.

There was general support for the delivery of an HCA seminar at IAATO 2010 and for the Chair to coordinate its preparation.

Outcome:

- See Action 9/7.

**9.2 HCA Presentation at the AT Experts Meeting, Wellington, NZ, Dec 2009**

The Chair indicated that he would attend this ATEM meeting on 9-11 December 2009 in Wellington, New Zealand, where presentations on HCA-related activities would be given by himself and Mr GREENLAND. The meeting would address:

- Maritime Safety / Search and Rescue; and
- Protection of the Environment.

The Chair stressed that the aim of the HCA participation in this meeting was to increase the level of hydrographic surveys in Antarctica in order to complete the INT chart scheme. Australia (NAIRN) hoped

that the ATEM meeting would result in hydrography in Antarctica being translated in national survey programmes, i.e. provision of funding support by Governments and recognition that hydrography in Antarctica should be a priority. IAATO (CROSBIE) suggested emphasizing at the ATEM meeting that HCA efforts will eventually benefit to all navigation operators in Antarctica, not only tourist vessels. The Chair concluded that it should be a good opportunity to help improving hydrography in Antarctica.

Reference was made to the following draft recommendation for the ATEM meeting that was presented by New Zealand (GREENLAND):

*“Recommendation 6: The Parties should advise tourist vessels to avoid those areas of Antarctica for which modern charts are not yet available.”*

It was felt that the words “avoid” and “modern charts” were too strong, and that the text should apply to all vessels, not only tourist vessels. A revised version would be prepared by New Zealand (GREENLAND).

The Chair believed that ATS should systematically be represented at HCA meetings. IAATO (CROSBIE) suggested that ATCM representatives be encouraged to liaise with their national HOs.

Outcome:

- See Action 9/5.

### 9.3 Other international events of interest to HCA

HCA attention was drawn to the following events, to take place in 2010 in Australia:

- Pacific 2010 – International Maritime Conference, 27-29 January, Sydney.
- Seapower 2010 (in conjunction with the above event).
- FIG 2010, 11-16 April, Sydney.
- Oceans’10, 24-27 May, Sydney.
- Spillcon 2010, 12-16 April, Melbourne.

Outcome:

- The Commission noted the planned events.

## 10.- TIME AND PLACE OF NEXT MEETING

The following possible venues for HCA10 were considered: UK (Cambridge), Australia (Hobart) and Germany (Bremerhaven). After discussion, the proposal by UK was gratefully accepted to host HCA10 in Cambridge in end September or beginning October 2010<sup>3</sup>.

Outcome:

- **Action 8/19 – HCA Chair and UK** to coordinate the dates and organization of the 10th HCA meeting in UK in Sept / Oct 2010.

## 11.- APPROVAL OF ACTION LIST

The meeting reviewed the list of actions arising from HCA9. Some of the actions were refined at this occasion, in particular Actions 9/17 and 9/19. The agreed list is at Annex E.

<sup>3</sup> Dates for HCA10 were subsequently agreed as follows: 20, 21 and 22 September 2010.

**12.- CLOSURE**

On behalf of the meeting, the Chair warmly thanked the South African hosts for the excellent arrangements for HCA9. 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 13:00 on 14 October 2009.

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## LIST OF ACRONYMS

AT	Antarctic Treaty
ATCM	Antarctic Treaty Consultative Meeting
ATEM	Antarctic Treaty Experts Meeting
ATS	Antarctic Treaty System
AWI	Alfred Wegener Institute (Germany)
BSH	Bundesamt für Seeschifffahrt und Hydrographie (Germany)
C-55	Publication "Status of Hydrographic Surveying and Nautical Charting" (IHO)
CB	Capacity Building
CGA	Composite Gazetteer of Antarctica (SCAR)
COMNAP	Council of Managers of National Antarctic Programmes
DEAT	Department of Environmental Affairs & Tourism (South Africa)
DHN	Dirección de Hidrografía y Navegación (Venezuela)
ENC	Electronic Navigational Chart
GEBCO	General Bathymetric Chart of the Oceans (IHO-IOC)
GGC	GEBCO Guiding Committee
GIS	Geographic Information System
HCA	Hydrographic Committee on Antarctica (IHO)
HO	Hydrographic Office
HSPWG	HCA Survey Prioritisation Working Group
IAATO	International Association of Antarctic Tour Operators
IBCSO	International Bathymetric Chart of the Southern Ocean (IOC-IHO-SCAR)
ICCWG	International Charting Coordination Working Group (IHO)
IHB	International Hydrographic Bureau
IHO	International Hydrographic Organization
IMO	International Maritime Organization
INSPIRE	INfrastructure for SPatial InfoRmation in Europe

INT	INTernational (Charts) (IHO)
IOC	Intergovernmental Oceanographic Commission (UNESCO)
IPEV	Paul Emile Victor Institute (France)
KHOA	Korean Hydrographic and Oceanographic Administration
KOPRI	KOrean PolaR Institute
LINZ	Land Information New Zealand
MS	Member State
MSI	Maritime Safety Information
MSR	Maritime Safety Route
PCR	Primary Charting Responsibility
PI	Performance Indicator
RENC	Regional ENC Coordinating Centre
RHC	Regional Hydrographic Commission (IHO)
SANAP	South African National Antarctic Programme
SANHO	South African Navy Hydrographic Office
SAR	Search and Rescue
SCADM	Sub-Committee on Antarctic Data Management (SCAR)
SCAGI	Sub-Committee on Antarctic Geographic Information (SCAR)
SCAR	Scientific Committee on Antarctic Research
SCUFN	Sub-Committee on Undersea Feature Names (GEBCO)
SDI	Spatial Data Infrastructure
SOGIS	Southern Ocean Geographic Information System (IBCSO)
SOLAS	Safety Of Life At Sea convention (IMO)
SOO	Ship Of Opportunity
SPRS	Ship Position Reporting System (COMNAP)
SSG-GS	Standing Scientific Group on GeoSciences (SCAR)
ToR	Terms of Reference
UNCSGN	United Nations Conference on the Standardization of Geographic Names

UKHO	United Kingdom Hydrographic Office
WEND	Worldwide ENC Database (IHO)
WG	Working Group
WMO	World Meteorological Organization

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<sup>4</sup> Department of Environmental Affairs & Tourism

## LIST OF DOCUMENTS

Document	Content	Responsible
HCA9-01A rev.4	List of Documents	Secretary
HCA9-01B rev.2	List of Participants	Secretary
HCA9-02A	HCA Membership and Observers List	Secretary
HCA9-03A rev.4	Agenda	Chairman
HCA9-03B rev.1	Annotated Agenda	Chairman
HCA9-03C rev.2	Time Table	Chairman
HCA9-05A rev.3	Status of Actions List from the 8 <sup>th</sup> HCA Meeting	Secretary
HCA9-06.1A	ATCM Report	ATCM Secretariat
HCA9-06.2A	COMNAP Report	COMNAP
HCA9-06.4A	IAATO Report	IAATO
HCA9-07.1A rev.2	INT Chart Scheme and Production Status for Region 'M'	Secretary
HCA9-07.1B rev.1	INT Charts in Progress or Not Produced	Secretary
HCA9-07.1C rev.2	Layout of INT Production Status for Region 'M'	Secretary
HCA9-07.2A	ENC Schemes and Production Status in Antarctica	Secretary
HCA9-07.3A	Undersea Feature Naming Status for Region 'M'	Secretary
HCA9-07.3B	GEBCO Report	
HCA9-07.3C	IBCSO Report	IBCSO
HCA9-07.4A	National Reports	HCA Member States
HCA9-07.4B	S-55 Status and GIS for Antarctica – Progress Report	Secretary
HCA9-08Aa	HSPWG Report (1 <sup>st</sup> part)	HSPWG Chair
HCA9-08Ab	HSPWG Report (2 <sup>nd</sup> part)	
HCA9-08B rev.1	HCA Long Term Survey Plan	HSPWG Chair
HCA9-08C rev.1	HCA Survey Short List	HSPWG Chair
	<b>INFORMATION DOCUMENTS</b>	
HCA9-INF1	Current HCA Statutes	Secretary
HCA9-INF2	Minutes of the 8 <sup>th</sup> HCA Meeting, Niteroi, RJ, Brazil, 2008	Secretary
HCA9-INF3	IHO Report submitted to the ATCM-32	Secretary
HCA9-INF4	“Collection and Rendering of Hydrographic Data obtained by SOO in Antarctic Waters”	Chairman
HCA9-INF5	IAATO Overview of Antarctic Tourism: 2008-2009	IAATO

**AGENDA**

- 1.- **Opening.**  
 Docs: HCA9-01A      *List of Documents*  
       HCA9-01B      *List of Participants*
  
- 2.- **HCA Membership Status.**  
 Docs: HCA9-02A      *HCA Membership and Observers List*  
       HCA9-INF1      *Current HCA Statutes*
  
- 3.- **Approval of the Agenda.**  
 Docs: HCA9-03A      *Agenda*  
       HCA9-03B      *Annotated Agenda*  
       HCA9-03C      *Time Table*
  
- 4.- **Election of Vice-Chairman**
  
- 5.- **Status of List of Actions resulting from the 8th HCA Meeting.**  
 Docs: HCA9-05A      *Status of Actions List from the 8<sup>th</sup> HCA Meeting*  
       HCA9-INF2      *Minutes of the 8<sup>th</sup> HCA Meeting, Niteroi, RJ, Brazil, 2008*  
       HCA9-INF3      *IHO Report submitted to ATCM-32*
  
- 6.- **Relevant International Organizations' Report.**
  - 6.1    ATCM  
 Docs: HCA9-06.1A      *ATCM Report (Plus intervention from New Zealand on Antarctic Treaty Meeting of Experts (ATME) on the Management of Ship-borne Tourism in the Antarctic Treaty Area)*
  
  - 6.2    COMNAP  
 Docs: HCA9-06.2A      *COMNAP Report*
  
  - 6.3    IMO  
 Docs: HCA9-06.3A      *IMO Report*
  
  - 6.4    IAATO  
 Docs: HCA9-06.4A      *IAATO Report*  
       HCA9-INF5      *IAATO Overview of Antarctic Tourism: 2008-2009*
  
  - 6.5    SCAR  
 Docs: HCA9-06.5A      *SCAR Report*
  
  - 6.6    IOC  
 Docs: HCA9-06.6A      *IOC Report*
  
  - 6.7    SANAP (South African National Antarctic Programme)
  
- 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 (M-11).  
 Docs: HCA9-07.1A      *INT Chart Scheme and Production Status for Region 'M'*  
       HCA9-07.1B      *INT Charts in Progress or Not Produced*  
       HCA9-07.1C      *Layout of INT Production Status for Region 'M'*

ENC scheme and production status  
 Doc: HCA9-07.2A *ENC Schemes and Production Status in Antarctica*

7.2 Interaction with IOC:

- The IOC/IHO GEBCO Project

Docs: HCA9-07.3A *Undersea Feature Naming Status for Region 'M'*  
 HCA9-07.3B *GEBCO Report*

- The IBCSO Project, an IOC/IHO/SCAR Project.

Docs: HCA9-07.3C *IBCSO Report*

7.3 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: HCA9-07.4A *National Reports*

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

Docs: HCA9-07.4B *S-55 Status and GIS for Antarctica – Progress Report*

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

7.5 Capacity Building Issues

**8. HCA Survey Prioritisation Working Group**

Docs: HCA9-08Aa *HSPWG Report (1<sup>st</sup> part)*  
 HCA9-08Ab *HSPWG Report (2<sup>nd</sup> part)*  
 HCA9-08B *HCA Long Term Survey Plan*  
 HCA9-08C *HCA Survey Short List*

**9.- Any other business.**

9.1 HCA Seminar at IAATO 2010

9.2 HCA Presentation at the AT Experts Meeting, Wellington, NZ, Dec 2009

9.3 Other international events of interest to HCA

**10.- Time and Place of next Meeting**

**11.- Approval of Action List.**

**12.- Closure**

## Annex E to HCA9 Minutes

## ACTIONS RESULTING FROM THE 9th HCA MEETING

Agenda Item	Action	Details	Responsible	Deadline
5	9/1	Coordinate the visit of hydrographic surveyors from Argentina, Chile and New Zealand to at least one IAATO ship, when calling in ports on her way to Antarctica, to advice on the collection and rendering of hydrographic data, and report experience at HCA10.	HCA Chair, Argentina, Chile, New Zealand, with cooperation from IAATO	30OCT09
5	9/2	Post on the IHO website all presentations given at the HCA seminars which took place during ATCM31 and COMNAP21.	HCA Secretary	30NOV09
5	9/3	Represent HCA at the IBCSO and report back to HCA10;	Dr. Schenke (Germany)	01SEP10
6.1	9/4	Modify the layout and content of HCA reports to ATCM so as to address environmental and scientific issues in addition to safety of navigation issues. Avoid specific references to SOLAS responsibilities for the time being.	HCA Chair	28FEB10
6.1 & 9.2	9/5	Liaise to ensure the delivery of complementary presentations at the ATME in Wellington, NZ, December 2009.	HCA Chair, New Zealand	30OCT09
6.2& 9.1	9/6	Send a letter of thanks to COMNAP for their constant support to HCA activities.	HCA Chair	30OCT09
6.4	9/7	Send a letter of thanks to IAATO for their constant support to HCA activities. Coordinate with IAATO and presenters, the delivery of a presentation at the next IAATO annual meeting, Turin, Italy, June 2010.	HCA Chair	30OCT09 28FEB10
6.4	9/8	Invite HCA members with no hydrographic platform to take advantage of IAATO offer to make use of their ships to conduct surveys in Antarctica. Detail coordination to embark hydrographic surveyors and equipment shall be made by interested HCA members directly with IAATO.	HCA Chair, HCA Members, with cooperation from IAATO	30OCT09
7.1	9/9	Clarify with USA: a) the need for INT 9062 (Scale 1:200 000, SE Weddell Sea) and, if confirmed, how its production can be progressed. b) their intentions regarding INT 9105 (Scale 1:25 000, Palmer Station and approaches), noting that HCA considers this chart as very appropriate.	HCA Chair	30OCT09
7.1	9/10	Reconsider the production plan for INT 9114 (Plans in Antarctic Sound).	UK, in liaison with Chile	30NOV09
7.1&7.2	9/11	Reinforce that, in accordance with the WEND Principles, INT chart producers for INT Region M are assumed to also be the producers of the corresponding ENCs and that those ENCs should be distributed through RENCs. Include this matter as an agenda item for HCA10.	HCA Chair, HCA Secretary	30OCT09
7.3	9/12	Invite IHO Members, the marine scientific community and any relevant national and international body to provide bathymetric data to IBCSO.	HCA Chair, with cooperation from IBCSO Chair	30NOV09
7.4	9/13	Submit a working paper to the next IRCC meeting in relation to the concern expressed by Australia and France on unsatisfactory bathymetric data sharing practice. The aim is to reinforce data exchange among HCA members (possible extension to RHCs members), to improve INT chart compilation and production.	HCA Chair	30MAR10
7.4	9/14	Provide bathymetric data collected in Gerlache Strait to Chile, for production of charts INT 9103 (Proj. 2013) and INT 9104 (Proj. 2011).	UK	30OCT09



<b>Agenda Item</b>	<b>Action</b>	<b>Details</b>	<b>Responsible</b>	<b>Deadline</b>
7.4	9/15	Circulate to HCA members for comments, Spain's request for change of limits for INT 9121.	HCA Secretary	30OCT09
8	9/16	Continue to progress its mandate and the preparation of graphics reflecting the status of hydrographic surveys assets, in the short list priority areas and related INT Charts. Provide these graphics to the HCA Secretary for their uploading to the HCA web page. Consequently, HCA Chair to coordinate filling the gaps with HCA members.	HSPWG [UK (lead), COMNAP (obs.), IAATO (obs.)], HCA Secretary, HCA Chair	30JAN10 30MAR10
8	9/17	Send a letter to all HCA members reminding the objective of INT Charts and the role of INT Chart Producer. Invite HCA Members to avoid the production of different national charts covering the same area and to reinforce the provision of the most reliable and updated INT Chart of such area. Highlight that duplication of charts of the same area confuses the mariner.	HCA Chair	30OCT09
8	9/18	Seek future survey intentions, sounding data holdings and ship track data outside the Antarctic Peninsula region from HCA members and other agencies (such as COMNAP and IAATO), to determine a prioritized list of survey requirements.	HSPWG [UK (lead), COMNAP (obs.), IAATO (obs.)]	30NOV09
8	9/19	Ask the current HSPWG members, i.e. AU, CL, AR, ES, GR, DE, US, to confirm their continued participation. Ask all remaining HCA members if they wish to participate.	HSPWG Chair	30NOV09
10	9/20	Coordinate the dates and organization of the 10th HCA Meeting in UK in Sept / Oct 2010.	HCA Chair, UK	30NOV09 30JUN10