

HCA9-INF3

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

XXXII ATCM
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**REPORT BY THE INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO)
ON "COOPERATION IN HYDROGRAPHIC SURVEYING AND CHARTING OF
ANTARCTIC WATERS"**

**XXXII Antarctic Treaty Consultative Meeting
06 - 17 April, Baltimore, USA**

Agenda Item 4

Operation of the Antarctic Treaty System: Reports by Parties, Observers and Experts.

Report by the **International Hydrographic Organization (IHO)** on
“Cooperation in Hydrographic Surveying and Charting of Antarctic Waters”

Introduction.

To ensure safety of life at sea and the protection of the Antarctic marine environment and dependent and associated ecosystems it is require a coordinated effort and a great spirit of cooperation. The International Hydrographic Organization (IHO) plays an important role in this matter through its Hydrographic Commission on Antarctica (HCA) that meets annually to coordinate hydrographic and nautical cartographic activities. This Report covers the period since the last ATCM and intends to provide a brief summary of the key benchmarks achieved as well as to highlight the challenges for the years to come.

It has been made known to the IHO that the Seminar organized by the HCA at the last ATCM to raise awareness on the importance of Hydrography in Antarctic, triggered a much better understanding between national Antarctic authorities and national Hydrographic authorities, both agreeing on the need to improve the priority assigned to conduct hydrographic surveys in Antarctica and to work closer. The Seminar was considered a success and will be repeated with some slight modification to its content, at the next COMNAP Council in Punta Arenas, Chile, in August 2009.

The IHO confirms that it continues to assign Antarctica a high priority. The different maritime accidents that have occurred in Antarctica has reinforced the HCA principles of coordination and cooperation with all the relevant international organizations, to improve safety of life at sea, safety of navigation, protection of the marine environment and marine scientific research in Antarctica.

The IHO Hydrographic Commission on Antarctica

The 8th Meeting of the IHO Hydrographic Commission on Antarctica (HCA) took place at the Directorate of Hydrography and Navigation (DHN), Niteroi, Rio de Janeiro, Brazil, 06-08 October 2008 thanks to the kind invitation of Vice Admiral Luiz Fernando PALMER Fonseca, Hydrographer of Brazil.

The Chairman, Capt Gorziglia (IHB Director) opened the meeting welcoming the 15 HCA Member States present (Argentina, Australia, Brazil, Chile, Ecuador, France, Germany, India, Italy, Norway, Peru, Spain, United Kingdom, Uruguay and USA) and observers from COMNAP, IAATO and IOC. It has to be highlighted that since the last ATCM, four States have signed the Statutes of the HCA - Japan, Republic of Korea, Uruguay and Venezuela - and therefore have become full members of the Commission, the total number of which is now 23. (**Annex A**)

At its last meeting, the Commission considered different matters including the issue of membership, the situation of which was provided above. The status of the action list agreed at the last meeting; the outcome of the XXXI ATCM including the Seminar and the status of nautical charting and the hydrographic survey programme received special consideration. RAdm Ian Moncrieff, National Hydrographer of the UK was elected Vice Chairman of the HCA

1.- Status of Actions Agreed.

The Commission reviewed the status of the actions agreed at the last meeting and confirmed that almost all actions had been completed.

The provision of Hydrographic Services in Antarctica and the application of SOLAS Convention, Chapter V, Regulation 9, "Hydrographic Services" was thoroughly discussed. While the Commission recognizes that this regulation is not applicable as such to Antarctic waters, it was agreed on the need to raise this subject to the XXXII ATCM. The recent Resolution 5 (2008) generates a very good platform as it provides a recommendation to Governments on an individual basis. What seems to be missing is an indication from the AT Parties on a collective regulation aiming at assigning hydro-cartographic responsibilities in Antarctica. It is the view of the HCA that AT Parties should consider addressing this subject aiming at setting a position defining obligations/responsibilities for the provision of hydrographic services in Antarctica. **Annex B** contains Regulation 9, the text of which could be used for developing a particular regulation for the Antarctic Treaty area.

The importance to keeping national ATCM delegates well informed by their corresponding national hydrographic authorities on IHO/HCA activities was found to be very important and in-line with the scope of ATCM Resolution 5 (2008) on "Improving hydrographic surveying and charting to support safety of navigation in the Antarctic region". It is the Commission's view that this sort of briefing should be considered as a permanent action to keep alive and enhance government support.

The Commission appreciated the strong support it receives from related international organizations, such as the ATS, IMO, IOC, COMNAP and IAATO. The GEBCO IHO/IOC program together with SCAR and the IBCSO project also merit especial mention.

2.- Outcome of the XXXI ATCM and Seminar.

The Commission received with great enthusiasm the increased interest ATCM has been giving to hydrographic, nautical cartographic and marine safety information on Antarctica. ATCM Resolution 5 already mentioned, constitutes a clear and strong message to the Antarctic Treaty signatories Governments on the need to adopt all possible measures to gather hydrographic information suitable for the production of more reliable nautical charts. The IHO would like to thank those Governments that submitted working papers on the matter and proposed and supported the Resolution.

With regard to the Seminar organized by the IHO/HCA, the Commission discussed the very positive expressions received after the Seminar from various ATCM Delegates. Comments were very encouraging and the Commission agreed to thank ATCM for the opportunity

offered to share IHO/HCA views on the status of nautical cartography and its effects on safety to navigation and protection of the marine environment. The Commission has also received a good feedback from the scientific community. Several national hydrographic authorities have been approached by their governmental agencies dealing with Antarctic, requesting more details of the situation. In brief, the Seminar seems to have built a bridge between national parties with similar interests but not working in a necessarily coordinated manner.

Concrete effects, such as an increase in hydrographic data gathering - hydrographic survey days in Antarctica -, or acceleration in the production on INT Charts cannot be assessed at this stage due to the short period elapsed, but we are optimistic that Resolution 5 (2008) will be seriously considered by the Antarctic Treaty Governments.

Following this Seminar, HCA is planning to deliver similar events at COMNAP and IAATO main meetings in 2009 and 2010 respectively.

3.- Status of Nautical Charting.

The situation with regard to chart production is provided in detail in Annex C.

The INT Chart scheme includes 100 charts. Nowadays two new charts proposed by Brazil to cover the area of Elephant Island are under consideration. It has to be kept in mind that from time to time new requirements arise. The procedure HCA follows is that before accepting any new chart into the scheme, the proposal is closely examined by the HCA.

Till December 2009, 65 INT Charts will have been published, leaving 35 in the pending list. Special attention shall be given to the modest expectation on future production, as it is indicated below:

- a) 3 charts are planned to be produced in 2010
- b) 1 chart is planned for 2011
- c) 4 charts are planned for 2012
- d) 1 chart is planned for 2013
- e) 0 chart is planned for 2014
- f) 5 charts are planned for “ no earlier than 2015”
- g) 21 charts have not yet been considered in the planning.

It is evident that if there is no change in the priority assigned by Governments to hydrographic surveying and nautical chart production, it is likely that the existing INT Chart scheme will not be completed before year 2025. The IHO/HCA is extremely concerned about this situation.

The Commission is aware of the effort made by Australia, Chile, France, Italy, Norway and UK to produce ENC of Antarctic waters. 13 overview; 3 coastal; 5 approaches, 4 harbour, and one berthing ENC are available. Other 9 are in production. The ENC scheme for small scale has been approved and the ENC scheme for medium scale is under revision. The scheme follows that of the INT chart on which the ENC has been based.

4.- Hydrographic Surveying Programme.

The Commission is fully aware that it is urgent to assign a high priority to hydrographic survey activities. At the last HCA meeting, its Chairman suggested the HCA Hydrographic Survey Programme Working Group to meet separately in order to review the existing terms of reference (dated 2004) and recommend concrete actions the Commission could take to move forward in line with the existing needs.

The WG offered updated terms of reference and a new name for the WG. Both were agreed and the actual name for the WG is “HCA Survey Prioritization WG”.

The Commission tasked the WG to update the prioritized hydrographic survey plan approved at HCA in 2007, taking into consideration National Reports as well as discussions/outcome of the ad-hoc meeting of the WG. The Commission appreciated the offer made by COMNAP and IAATO to contribute to this work as Observers. The document to be prepared by the WG shall provide guidance on the priorities required to improve the INT Chart production.

5.- Next HCA Meeting.

Following the kind invitation from the Hydrographer of South Africa, the Commission accepted with thanks and agreed to have the 9th HCA meeting in Cape Town, South Africa, 12-14 October 2009.

Conclusions

1.- The IHO/HCA, supported by several international organizations and projects continues to facilitate the coordination and cooperation in hydrographic surveying and nautical chart production of Antarctic waters, therefore contributing to safety to navigation and protection of the marine environment.

2.- Despite the efforts made to raise awareness of the importance of assigning a higher priority to hydrography, the IHO/HCA is concerned by the extremely low progress achieved in terms of nautical chart production. This has two causes, one is the very few hydrographic surveys conducted and the second is the low priority assigned to the cartographic processes.

3.- The examination of Regulation 9 of SOLAS V by ATCM might help in identifying a way by which AT Governments could feel more committed to allocate resources to conduct hydrographic surveys and consequently produce the nautical chart of the areas which have voluntarily expressed their willingness to be a “producer nation”.

4.- The Seminar organized by the IHO/HCA allowed to share with the XXXI ATCM Delegates the concern of the hydrographic community derived from the low hydrographic activity in Antarctica. Resolution 5 (2008) recommending Governments, among others, to cooperate with HCA, constitutes a sign of the ATS’s interest that we expect shall have positive effects on the insufficient level of provision of timely, reliable and updated hydro-cartographic information, products and services of Antarctica.

Recommendations

It is recommended that the XXXII ATCM:

- 1.- Takes note of the IHO Report.
- 2.- Takes action as regard to the conclusions in the Report.

Monaco, February 2009.

ANNEXES:

- A: HCA Membership Situation.
- B: SOLAS V Regulation 9 “Hydrographic Services”.
- C: INT Chart Present Production Status.

ANNEX A

HCA MEMBERSHIP SITUATION

(February 2009)

MEMBERS:

Argentina	Korea, Republic of
Australia	New Zealand
Brazil	Norway
Chile	Peru
China	Russian Federation
Ecuador	South Africa
France	Spain
Germany	United Kingdom
Greece	Uruguay
India	USA
Italy	Venezuela
Japan	

OBSERVER ORGANIZATIONS:

Antarctic Treaty Secretariat (ATS)
Council of Managers of National Antarctic Programmes (COMNAP)
Standing Committee on Antarctic Logistics and Operations (SCALOP)
International Association of Antarctic Tour Operators (IAATO)
Scientific Committee on Antarctic Research (SCAR)
International Maritime Organization (IMO)
Intergovernmental Oceanographic Commission (IOC)
General Bathymetric Chart of the Oceans (GEBCO)
International Bathymetric Chart of the Southern Ocean (IBCSO)
IHO Data Center for Digital Bathymetry (DCDB)
Australian Antarctic Division
Antarctica New Zealand.

ANNEX B

SOLAS CHAPTER V

Safety of Navigation

Regulation 9

Hydrographic services

- 1 Contracting Governments undertake to arrange for the collection and compilation of hydrographic data and the publication, dissemination and keeping up to date of all nautical information necessary for safe navigation.
- 2 In particular, Contracting Governments undertake to co-operate in carrying out, as far as possible, the following nautical and hydrographic services, in the manner most suitable for the purpose of aiding navigation:
 - .1 to ensure that hydrographic surveying is carried out, as far as possible, adequate to the requirements of safe navigation;
 - .2 to prepare and issue nautical charts, sailing directions, lists of lights, tide tables and other nautical publications, where applicable, satisfying the needs of safe navigation;
 - .3 to promulgate notices to mariners in order that nautical charts and publications are kept, as far as possible, up to date; and
 - .4 to provide data management arrangements to support these services.
- 3 Contracting Governments undertake to ensure the greatest possible uniformity in charts and nautical publications and to take into account, whenever possible, relevant international resolutions and recommendations.**
- 4 Contracting Governments undertake to co-ordinate their activities to the greatest possible degree in order to ensure that hydrographic and nautical information is made available on a world-wide scale as timely, reliably, and unambiguously as possible.

** Refer to the appropriate resolutions and recommendations adopted by the International Hydrographic Organization.

ANNEX C

INT Chart Present Production Status (February 2009)

No.	INT No.	Name of the INT Charts	Scale	Producer	Status	
					Publication	N. Edition
1	900	Ross Sea	2 000 000	NZ	1998	
2	901	De Cape Goodenough à Cape Adare	2 000 000	FR	2006	
3	902	Mawson Sea and Davis Sea	2 000 000	RU	2000	
4	903	Sodruzhestva Sea	2 000 000	RU	2001	
5	904	Dronning Maud Land	2 000 000	NO	2002	
6	905	South Sandwich Islands	2 000 000	DE	?	
7	906	Weddell Sea	2 000 000	GB	2005	
8	907	Antarctic Peninsula	2 000 000	GB	2000	
9	908	Bryan Coast to Martin Peninsula	2 000 000	GB	2015?	
10	909	Martin Peninsula, Cape Colbeck	2 000 000	NO	?	
11	9000	Terra Nova Bay to Moubray Bay	500 000	IT	?	
12	9001	Cape Royds to Pram Point	60 000	NZ	2007	
13	9002	Scientific Stations McMurdo and Scott	5 000	NZ	2007	
14	9003	Approaches to Scott Island	75 000	NZ	2008	
		Plan A – Scott Island	25 000			
15	9004	Terra Nova Bay	250 000	IT	2007	
16	9005	Da Capo Russell a Campbell Glacier Tongue	50 000	IT	2000	
17	9006	Cape Adare and Cape Hallett	50 000	NZ	2003	2006
		Plan A – Cape Adare	50 000			
		Plan B – Cape Hallett	50 000			
		Plan C – Ridley Beach	15 000			
		Plan D – Seabee Hook	15 000			

18	9007	Possession Islands	60 000	NZ	2003	2006
19	9008	Cape Adare to Cape Daniell	200 000	NZ	2003	2006
20	9009	Cape Hooker to Coulman Island	500 000	NZ	2004	
21	9010	Matusevich Glacier to Ob' Bay	500 000	RU	2000	
22	9011	Mys Belousova to Terra Nova Island	200 000	RU	2000	
		Plan A – Leningradskaya Station	1 000			
23	9012	Balleny Islands	300 000	NZ	2006	
		Continuation: Balleny Seamount	300 000			
24	9014	Approaches to Commonwealth Bay	25 000	AU	2002	
		Plan A – Boat Harbour	5000			
25	9015	Du Glacier Dibble au Glacier Mertz	500 000	FR	2004	
26	9016	De la Pointe Ebba au Cap de la Découverte	100 000	FR	2004	
		Plan A – Archipel Max Douguet - Port-Martin	10 000			
		Plan B – Archipel Max Douguet	30 000			
27	9017	De l'Île Hélène au Rocher du Débarquement - Archipel de Pointe Géologie	20 000	FR	2002	
		Plan A – Archipel de Pointe Géologie	7500			
28	9020	Mill Island to Cape Poinsett	500 000	AU	1998	
29	9021	Approaches to Casey	50 000	AU	1999	Proj. 2010
		Plan A – Newcomb Bay	12 500			
30	9025	Davis Sea	500 000	RU	1999	
31	9026	Approaches to Polar Station Mirny	200 000	RU	1999	
32	9027	Road Mirny	10 000	RU	1999	
33	9030	Sandefjord Bay to Cape Rundingen	500 000	AU	1992	
34	9031	Cape Rundingen to Cape Filchner	500 000	AU	2002	
35	9032	Approaches to Davis Anchorage	12 500	AU	2003	
36	9033	Cape Rouse to Sandefjord Bay	500 000	AU	1991	Proj. 2011
37	9035	Magnet Bay to Cape Rouse	500 000	AU	1993	Proj. 2011
38	9036	Approaches to Mawson	25 000	AU	2007	
		Plan A - Horseshoe harbour	5000			
39	9037	Gibbney Island to Kista Strait	25 000	AU	2009(Dec)	
40	9040	Alasheyev Bight to Cape Ann	500 000	RU	2000	
41	9041	Alasheyev Bight	100 000	RU	1999	
42	9042	Approaches to Molodezhnaya Station	12 500	RU	1999	
43	9045	Vestvika Bay	500 000	JP	?	

44	9046	Eastern Part of Ongul	100 000	JP	?	
45	9047	Western Part of Ongul	10 000	JP	2009	
46	9050	Sergei Kamenev Gulf to Neupokojevabukta	500 000	RU	1999	
47	9051	Approaches to Leningradbukta	200 000	RU	1998	
48	9055	Muskegbukta Bay to Atka Gulf	500 000	DE	2009(Nov)	
49	9056	Approaches to Dronning Maud Land	300 000	ZA	2005	
50	9057	<i>To be determined</i>	200 000	DE	2009(Nov)	
51	9060	Cape Roule to Farell Bay	500 000	RU	2000	
52	9061	Approaches to Halley Base	200 000	GB	2005	
53	9062	<i>To be determined</i>	200 000	US	?	
54	9100	Isla Marambio	25 000	AR	?	
		Plan A – Base aérea Marambio	5000			
55	9101	Peninsula Trinidad	10 000	AR	2012?	
		Plan A – Base Esperanza, Caleta Choza	5000			
56	9102	Estrecho Bransfield, Rada Covadonga y Accesos	10 000	CL	2003	
57	9103	Gerlache Strait	50 000	CL	?	
58	9104	Gerlache Strait	50 000	CL	?	
59	9105	Bismarck strait, Approaches to Arthur Harbour	25 000	US	?	
		Plan A – Arthur Harbour	10 000			
60	9106	Argentine Islands and Approaches	60 000	GB	1996	
		Plan A – Argentine Islands	15 000			
61	9107	Pendleton Strait etc.	50 000	GB	2015?	
62	9108	Hanusse Bay to Wyatt Island	50 000	CL	?	
63	9109	British Antarctic Survey Base Rothera	25 000	GB	1999	
64	9110	Adelaide Island, South Western Approaches	30 000	CL	?	
65	9111	Bahía Margarita	25 000	AR	2012?	
66	9112	Plans in Bransfield Strait		GB	2015?	
		Plan A – Yankee Harbour	12 500			
		Plan B – Freud (Pampa) Passage	50 000			
		Plan C – Portal Point	25 000			
		Plan D – Penguin Island	20 000			
		Plan E – Hydrurga Rocks	10 000			
67	9113	Plans in Elephant Island		GB	?	
		Plan A – Cape Lookout	50 000			
		Plan B – Cape Valentine	10 000			

		Plan C – Point Wild	10 000			
68	9114	Antarctic Sound		GB	█	
		Plan A – Fridtjof Sound	50 000			
		Plan B – Brown Bluff	10 000			
		Plan C – Gourdin Island	15 000			
69	9115	Active Sound	50 000	AR	█	
70	9116	Plans in Paulet and Danger Islands		GB	█	
		Plan A – Paulet Island	50 000			
		Plan B – Danger Islands	50 000			
71	9120	Isla Decepción	50 000	AR	2004	2006
		Plan A - Fuelles de Neptuno	12 500			
72	9121	Isla Livingston, de Punta Band a la Bahía Brunow	35 000	ES	1998	
		Plan A – Isla de la Media Luna	25 000			
		Plan B – Base Juan Carlos I	5 000			
73	9122	Bahía Chile, Puerto Soberanía y Ensenadas Rojas e Iquique		CL	1998	
		Plan A - Bahía Chile	20 000			
		Plan B - Puerto Soberanía y Ensenadas Rojas e Iquique	5000			
74	9123	Caletas en Bahía Fildes		CL	2007	
		Plan A – Caleta Potter	10 000			
		Plan B – Caleta Ardley	10 000			
		Plan C – Caleta Marian	10 000			
75	9124	Bahia Fildes	30 000	CL	2007	
76	9125	Baia do Almirantado	40 000	BR & PE	2010?	
		Plan A – Ensenada Martel	20 000			
		Plan B – Estação Arctowski	10 000			
		Plan C – Ensenada Mackellar	15 000			
77	9130	Crystal Hill to Devil Island	75 000	GB	█	
		Plan A - Bald Head	10 000			
		Plan B - View Point	10 000			
		Plan C - Matts Head	10 000			
		Plan D - Crystal Hill	10 000			
		Plan E - Camp Point	10 000			
		Plan F - Devil Island	10 000			
78	9131	Crystal Sound	75 000	GB	█	
79	9132	Grandidier Channel	75 000	GB	█	
80	9140	Islas Orcadas del Sur	150 000	AR	2015?	
81	9141	Approaches to Signy Island	50 000	GB	2006	

		Plan A – Borge Bay and Approaches	10 000			
82	9142	Bahía Scotia	10 000	AR	2006	
83	9150	Islas Elefante y Clarence	200 000	BR	1999	UK 2008
84	9151	De Isla De Jorge a Isla Livingston	200 000	CL+BR	2012?	
85	9152	De Isla Livingston a Isla Low	200 000	CL+BR	2012?	
86	9153	Church Point to Cape Longing including James Ross Island	150 000	GB & AR	1999	2004 UK2009
87	9154	Joinville Island to Cape Ducorps and Church Point	150 000	GB & AR	1996	2002 UK2009
88	9155	Estrecho Bransfield - Rada Covadonga a Isla Trinidad	150 000	CL	2003	
89	9156	Archipiélago de Palmer, de Isla Trinidad a Isla Amberes	150 000	AR	2009(Oct)	
90	9157	Gerlache Strait	150 000	CL	?	
91	9158	Anvers Island to Renaud Island	150 000	GB	2001	2003
		Plan A – Port Lockroy	12 500			
92	9159	Pendleton Strait & Grandidier Channel	150 000	GB	2011?	
93	9160	Crystal Sound	150 000	GB	2013?	
94	9161	Matha Strait to Pourquoi Pas Island	150 000	CL	?	
95	9162	Adelaide Island	150 000	CL	2010?	
96	9163	Marguerite Bay; Rothera	150 000	GB	2009	
97	9164	Margarita Bay	150 000	CL	2010?	
98	9170	Islas Shetland y Mar de la Flota	500 000	AR	1997	
99	9171	Brabant Island to Adelaide Island	500 000	GB	2015?	
100	9172	Matha Strait to Rothschild Island	500 000	RU	1999	

Resume:

- a) 65 out of 100 INT Charts have been produced (or shall be finalized in 2009).
- b) 3 charts are planned for 2010
- c) 1 chart is planned for 2011
- d) 4 charts are planned for 2012
- e) 1 chart is planned for 2013
- f) 0 chart is planned for 2014
- g) 5 charts are planned for “no earlier than 2015”
- h) 21 charts have not yet been considered in the planning.

===== END =====