

**19th Conference of the IHO Hydrographic Commission on Antarctica (HCA)  
Venice, Italy (hybrid), 15 – 18 April 2024**

**LIST OF DECISIONS and ACTIONS FROM HCA-19 including**

- Appendix 1: HCA-19 HPWG Report and Decisions and Actions
- Appendix 2: HCA-19 Region M ICCWG Report and Decisions and Actions

**(as of 18 April 2024)**

Decision/Action	Agenda Item	Details	Target Date	Status (April 2024)
	<b>1.</b>	<b>Opening – Welcome Address</b>		
HCA19/01		<p><b>HCA Chair</b> thanked <b>RAdm Massimiliano Nannini, Director of the IIM</b>, for his warm welcome address in presence of the representative of the City of Venice, and <b>Italy</b> for hosting HCA-19 in such a historical and inspiring venue.</p> <p>He also welcomed the three new HCA Members (<b>NL, PL</b> and <b>TR</b>) as well as those Members present in-person in Venice and those attending by VTC.</p>		Decision
HCA19/02		<p>In his opening address, the <b>HCA Chair</b> reminded HCA Members with those fundamental principles of the Antarctic Treaty (1959), fully reflected in the HCA Statutes, for the purpose of the conduct of hydrography in the <i>Southern Ocean</i>. The importance for HCA to get involved in the programmes and actions in relation to the impact of climate change in this specific region was also highlighted.</p>		
	<b>2.</b>	<b>Approval of Agenda and Timetable – HCA Chair Report</b>		
HCA19/03		The <b>HCA</b> approved the agenda and timetable as proposed.		Decision

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HCA19/04		The <b>HCA</b> noted the <b>HCA Chair</b> report on the IHO activities relevant for HCA since the last Conference. The <b>HCA Chair</b> also thanked <b>Mr Lee Truscott (UKHO), HPWG Chair and Region M ICCWG Coordinator</b> for conducting a fruitful workshop the day before HCA-19 opening.		Decision
	<b>3.</b>	<b>HCA Membership Status and Statutes</b>		
HCA19/05		<b>HCA Members and Observers</b> to provide their updates on the HCA Membership List to the <b>HCA Sec.</b> as appropriate.	<b>Permanent</b>	Last update: <b>26 February 2024</b>
HCA19/06	03C	Following Decision A3/17, <b>HCA</b> noted that Art. 8(e) of the <i>General Regulations of the IHO</i> (IHO Publication M-1) had been amended accordingly.		Decision
	<b>5.</b>	<b>Review of Status of List of Actions resulting from HCA-18</b>		
HCA19/07 (former HCA18/08, ..., HCA15/07)	05A	<b>HCA</b> agreed that, as a matter of principle, the current producer nations in Antarctica should be encouraged to consider the future production and distribution of S-100 based products for Antarctica, in their areas of charting responsibility.	<b>Reminder</b>	Decision
HCA19/08 (former HCA18/09, ..., HCA16/07b)		<b>HCA Members</b> , binded by the Antarctic Treaty <sup>1</sup> , are encouraged to ensure that bathymetric information contained in their surveys <sup>2</sup> (survey coverage metadata as a minimum) is transmitted to the IHO DCDB (ATCM Resolution No 06/2019, as approved at ATCM XLII).	<b>Permanent</b>	Decision
	<b>6.</b>	<b>ATCM, COMNAP, SCAR, and IAATO</b>		
	<b>6.1</b>	<b>ATCM, SCAR, and IAATO</b>		

<sup>1</sup> Antarctic Treaty, Article II 1.(c) states “scientific observations and results from Antarctica shall be exchanged and made freely available.”

<sup>2</sup> Even those motivated by charting upgrades.

Decision/Action	Agenda Item	Details	Target Date	Status (April 2024)
HCA19/09	6.1A	<p><b>HCA</b> noted the highlights provided by the <b>HCA Secretariat</b> in the IHO report to ATCM XLV (2023): news areas free of ice, no adequate surveys for safe navigation, new S-100 Products and ENDS to come, and consideration for possible amendments to the IMO Polar Code, if appropriate (in liaison with ARHC).</p> <p><b>HCA Chair</b> to raise these issues at ARHC-14 and then invite <b>ARHC/HCA Members</b> to consider an action plan for submitting relevant updates to the IMO Polar Code if appropriate.</p>	Sept. 2024	
HCA19/10	6.1A	<p>Regarding the ATCM Multi-Year Strategic Work Plan (See Section 9 in Annex of the ATCM XLV Final Report), <b>HCA Chair</b> to plan the preparation and insertion of a progress report in the IHO Report to ATCM XLVII.</p> <p><b>HCA Secretariat</b> (supported by <b>Chile</b>, <b>yy</b>, <b>UK</b>) to prepare the annexes of the IHO Report (geographic survey coverage, graphics of products and services, overlays, or link to HCA GIS?).</p>	ATCM XLVII (2025) in Italy? – 3 months	
HCA19/11		<p><b>HCA</b> agreed to plan a short HCA VTC01 early 2025 in preparation of ATCM XLVII (survey coverage status and plans, progress made since ATCM Resolutions on hydrography).</p>	March 2025	

Decision/Action	Agenda Item	Details	Target Date	Status (April 2024)
HCA19/12	6.1A	<p><b>HCA Chair</b> invited <b>HCA Members</b> who plan to participate in ATCM XLVI in Kochi, India, to network and promote HCA activities in social events and side-discussion meetings, and plenary sessions as appropriate.</p> <p><b>HCA Members</b> are invited in particular to liaise with their heads of delegations to confirm the intention of the IHO to provide an update on the ATCM Multi-Year Strategic Work Plan (Section 9) in 2025 at ATCM XLVII.</p>	<p><b>ATCM XLVI</b></p> <p><b>May 2024</b></p>	
HCA19/13 (former HCA18/12, ..., HCA16/11)	6.1B, 6.1C	<p>Noting that pro-active actions are necessary to have “IHO activities” in their agenda meetings, <b>HCA Chair</b> (ideally represented by <b>HCA Member</b> according to the host country/region) to consider the possibility of participating regularly in ATCM, COMNAP, SCAR and IAATO meetings.</p>	<p><b>HCA-20</b>, and as appropriate</p>	
HCA19/14	6.1B	<p><b>HCA</b> commended <b>Dr Chandrika Nath, SCAR</b> representative, for her very comprehensive report and noted the information for a better understanding of future sea level change in Antarctica as well as the announcement of the 5<sup>th</sup> International Polar Year 2032-2033 IPY).</p> <p><b>HCA</b> to consider this event as a possible input in the preparation of the IHO Strategic Plan 2027 – 2032 and associated 3-year Work Programmes.</p>	<p><b>A-4 (- 6 months)</b></p>	
HCA19/15		<p>By HCA invitation of HCA, <b>Chile</b>, as HCA Member, kindly agreed to represent the HCA at the forthcoming 11<sup>th</sup> SCAR Open Science Conference, planned in Pucón, Chile.</p>	<p><b>26-28 August 2024</b></p>	
HCA19/16		<p><b>HCA</b> thanked <b>Dr Lisa Kelley, IAATO</b> representative for her continuous support to the IHO.</p>		

Decision/Action	Agenda Item	Details	Target Date	Status (April 2024)
HCA19/17 (former HCA18/11, ..., HCA15/11)	6.1C	<p><b>IAATO</b> to check if the new approved guidance on crowd-sourced bathymetry (B-12) can be implemented technically – possibly by exporting from Voyage Data Recorder recordings (experimentation in progress).</p> <p><b>Norway</b> (as <b>GGC Chair</b>) to engage with <b>IAATO</b> Director of Operations on this matter.</p>	<b>HCA-20</b>	
	<b>7.</b>	<b>HCA activities in relation to the IHO Work Programme</b>		
	7.1	<b>IHO-IOC GEBCO, IBCSO and Seabed 2030</b>		
HCA19/18	7.1A	<p><b>HCA</b> noted the update on IBCSO version 2 (June 2022) provided by Dr Boris Dorschel (AWI) and the main outcome of the Fifth Arctic-Antarctic and North Pacific Mapping Meeting.</p>		
HCA19/19 (former HCA18/19)	7.1B	<p>Following up on ATCM Resolution 6 (2019), <b>HCA Chair</b> to invite <b>HCA Members</b> to report at HCA-20, as part of their national reports, how they engage with their national marine research institutes to improve their contribution to GEBCO / Seabed 2030. (survey data to be used for charts to be shared with GEBCO, no specific request for process data in charts due).</p>	<b>HCA-20</b>	
HCA19/20	7.1B	<p><b>HCA</b> noted the GEBCO update provided by the <b>GGC Chair</b>, highlighting the new GEBCO strategy and governance report, as well as the IHO DCDB data holdings in Antarctica.</p> <p>The GGC Chair suggested that the HCA invites the National Hydrographic Offices represented in HCA to participate in the CSB workshop held in April 2024 (<a href="#">IHO CL 14/2024</a> refers)</p>	<b>To be considered for IHO Report to ATCM-47</b>	

Decision/Action	Agenda Item	Details	Target Date	Status (April 2024)
HCA19/21 (former HCA18/15)		HCA noted the Olex issue and invited Members to contribute to the relevant IHO bodies (CSBWG, DQWG) on this matter.	HCA-20	
HCA19/22		HCA agreed that the IHO (GGC in liaison with IHO Secretariat) should promote (tutorial?) the data flow at high level (ATCM, and others contributing parties, ) to stimulate the provision of data to the IHO DCDB and metadata survey coverage (planned and existing) and, in return, facilitate the pull-push mode to get a one stop-shop discovery access on an annual basis.	HCA-20	
	<b>7.2A</b>	<b>National Reports</b>		
HCA19/23		HCA noted the national reports delivered or provided by <b>AR, AU, BR, CL, CN, CO, DE, ES, FR, GB, IT, JP, KR, NL, NO, NZ, PE, PL, RU, TR, US, VE</b> and <b>ZA</b> and commended the HOs for the high quality of the information provided.		Decision
HCA19/24		In accordance with the Antarctic Treaty and HCA Statutes, HCA requested <b>Russian Federation (DNO)</b> to provide the metadata of the survey in Bellingshausen Sea to the <b>HCA Secretariat</b> .	Asap	
HCA19/25		HCA requested <b>Russian Federation (DNO)</b> to consider the provision of the the survey data in Bellingshausen Sea to GEBCO / Seabed 2030.	Asap, if possible by <b>March 2025</b> (in preparation of <b>ATCM-XLVII</b> )	

	7.3A&B	HCA Hydrography Priorities Working Group		
HCA19/26		<p>Based on the inputs provided in national reports and several bilateral exchanges, the <b>HPWG Chair</b> reported on the survey activities in the region.</p> <p>The <b>HCA</b> welcomed the offer made by the <b>HPWG Chair</b> for VTC meetings, as and when required.</p>	In preparation of HCA-20	
HCA19/27		<p>The <b>HCA</b> approved the new additional complementary survey requirements (outstanding requirements for the Peninsula MSRs) as proposed by the HPWG Chair and provided in <b>Appendix 1</b> to this List of Decisions and Actions (Doc. HCA19-07.3A refers, Peninsula Survey Plan, including amendments discussed and agreed at the workshop).</p>		
HCA19/28		<p><b>HPWG Chair</b> to provide the HCA Secretariat with the new agreed Peninsula Survey Plan (as of HCA-19), for publication.</p>	Asap, no later than 30 April 2024	
HCA19/29 (former HCA18/26)		<p>Beyond the Peninsula, <b>HCA Members</b> active in these regions are invited to collate relevant data and provide MSR information if any to the <b>HPWG Chair</b> for subsequent analysis against AIS data in preparation of the next Conference.</p>	September 2025  HCA-20	
HCA19/30		<p><b>HCA Members</b> to supply survey metadata to HCA GIS, through or cc <b>HPWG chair</b>, using the online formstack submission process, keeping HPWG informed.</p>	Permanent	

<p>HCA19/31 (former HCA18/28)</p>		<p><b>HCA</b> thanked <b>IAATO</b> for the review of regional Aids to Navigation.</p> <p><b>HCA Members</b> to keep the current list available on the IHO HCA webpage up-to-date.</p> <p><b>HCA Secretariat</b> to liaise with <b>IALA</b> for them to consider providing their metadata (if any) to the <b>IHO Secretariat</b> for HCA GIS repository.</p>	<p><b>HCA-20</b></p> <p><b>HCA-20</b></p>	<p>(Existing IALA risk assessment studies in Region M to be investigated)</p>
	<p><b>7.4A</b></p>	<p><b>Region M ICCWG</b></p>		
<p>HCA19/32</p>		<p>Based on the inputs provided in national reports and several bilateral exchanges, the <b>Region M ICCWG Chair</b> proposed options on the evolution of charting schemes (INT charts and ENC)s in the region.</p> <p>The <b>HCA</b> welcomed the offer made by the <b>Region M ICCWG Chair</b> for VTC meetings, as and when required.</p>	<p><b>In preparation of HCA-20</b></p>	
<p>HCA19/33</p>		<p>Based on the outcome of the workshop, the <b>HCA</b> approved the proposed evolution of the charting schemes and the allocation of the production to <b>HCA Members</b> in general.</p> <p>Subsequent decisions are reflected in the updated plan provided in <b>Appendix 2</b> to this List of Decisions and Actions (Doc. HCA19-07.4A refers, including amendments discussed and agreed at the workshop and in plenary).</p>		<p><b>Decision</b></p>



HCA19/34		<p><b>Region M ICCWG Chair</b> to provide the HCA Secretariat with the new agreed charting scheme (as of HCA-19), for publication.</p> <p>Accordingly, <b>HCA Members</b> to submit these agreed charting plans through INTToGIS iaw S-11 Part B (schemes).</p>	<p><b>Asap, no later than 30 April 2024</b></p> <p><b>May 2024</b></p>	
HCA19/35		<p><b>HCA</b> commended <b>Mr Lee Truscott and Ms Laura Caton (UKHO)</b> for their outstanding preparation work on the charting schemes, in the weeks preceding HCA-19.</p>		Decision
HCA19/36 (former HCA18/39)		<p>The <b>HCA</b> reminded the <b>Region M ICCWG</b> recommendations on the general WEND principles/guidelines for the establishment of ENC Schemes in the region:</p> <ul style="list-style-type: none"> <li>- where not ENC first, the INT chart and ENC scheme is aligned.</li> <li>- where producing ENC only, proposal <u>must</u> be circulated to Region M Coordinator in advance for being considered than submitted to HCA for formal approval.</li> <li>- iaw standards in force, all proposals <u>must</u> be designed to avoid overlaps.</li> </ul>	<p><b>Permanent</b></p>	
	<b>7.5A</b>	<b>IHO HCA GIS and INTToGIS III</b>		
HCA19/37		<p><b>HCA</b> noted the report from the IHO Secretariat on HCA GIS and INTToGIS III.</p>		
HCA19/38 (former HCA18/43)		<p><b>All HCA Members</b> to submit data and survey coverage metadata to IHO Secretariat using HCA submission formstack...</p> <p>... and <b>HCA Secretariat</b> to consider also harvesting-type solutions when these data are already available on national portals.</p>	<p><b>All, Periodic</b> (once a year, <b>June</b>)</p> <p><b>HCA-20</b></p>	<p>Any MS volunteering for experimentation?</p>

HCA19/39		<b>HCA</b> welcomed the offer from <b>X, Y, Z</b> to experiment INTOGIS III in Region M in particular, as planned in the development plan of this system.	<b>Mid-September 2024</b>	
	<b>7.6A</b>	<b>S-100 in Region M</b>		
HCA19/40 (former HCA18/40)		Anticipating the outcome of IRCC-14 on the recommendations from the <b>WENDWG</b> regarding the S-100 Implementation Roadmap per region, <b>HCA</b> agreed to establish an HCA S-100 Implementation Working Group ( <b>HCA Secretariat</b> leads).		Decision
HCA18/41		<p>Following up on Action WENDWG12/33 (IGIF pathway matrix per S-1xx product, per RHC), <b>HCA</b> agreed on some guiding initial principles and leaders to fill the HCA S-100-IGIF Matrix:</p> <ul style="list-style-type: none"> <li>- <b>S-101: GB</b> (as Region M Charting Coordinator, continuity by S-57 conversion)</li> <li>- <b>S-102: DE</b> (in liaison with <b>AWI</b>, as Seabed 2030 Data Centre/IBCSO)</li> <li>- <b>S-104: US</b> (in its global capacity in ocean modelling)</li> <li>- <b>S-111: US/FR</b> (in its global capacity in ocean modelling)</li> <li>- <b>S-122: EC/DE</b> (making benefits of experience gained in Ecuador and BSHC)</li> <li>- <b>S-124: AR, AU, CL, ZA, NZ</b> (as NAV Coordinators)</li> <li>- <b>S-128: NO/GB</b> (as Operators of PRIMAR/IC-ENC)</li> <li>- <b>S-411 – Ice information: AR/CL/DE</b></li> </ul>	<b>WENDWG-13/ HCA-19</b>	Reminder
HCA19/41		<b>HCA</b> noted the new draft List of S-100 Coordinators under development (currently under S-11 Part B on the IHO website).	<b>HCA-20 (maintenance at every HCA Conference</b>	

HCA19/42		<b>HCA</b> invited the <b>Region M S-1xx Coordinators</b> (listed above in HCA18/41) to submit an preliminary work plan to <b>HCA Secretariat</b> .	<b>January 2025</b> in preparation of the IHO Report to ATCM-47(and WENDWG-15) ...then <b>HCA-20</b>	
HCA19/43		The <b>HCA</b> noted the outcome of the WENDWG14 meeting and agreed on the global strategy for S-1xx coordination and production in Region M.	<b>WENDWG-15/HCA-20</b>	
	<b>8.</b>	<b>Any other business – Preparation of IRCC-16 and C-8</b>		
	<b>8.1</b>	<b>Next IHO Strategic Plan for Antarctica (Climate Change, etc.) (Decision C7/37 refers)</b>		
HCA19/44		<b>HCA</b> agreed in general with all the proposed actions identified in the open discussion on the IHO Strategic Plan and Climate Change (Doc. HCA19-08.1A refers).		Decision
HCA19/45		<b>HCA Vice-Chair in liaison with US and HCA Secretariat</b> to manage this specific HCA climate change action plan.	<b>HCA-20</b>	
HCA19/46		<b>HCA Chair</b> to include this proposed HCA Climate Change Action Plan in his report to IRCC-16 as well as the need to improve the relation between IHO activities (and HCA activities) and the UN Ocean Decade projects.	<b>IRCC-16</b>	
	<b>9.</b>	<b>Election of Vice-Chair</b>		

HCA19/47		<p>The <b>HCA</b> thanked <b>Mr Patrick Dorr (NGA, USA)</b> for his six years in service as active HCA Vice-Chair and elected <b>Chile (RAdm Arturo Oxley, Director of SHOA)</b> as new <b>Vice-Chair</b>.</p> <p><b>Chile</b> will serve until the end of the first HCA Conference after A-4 (2027).</p>		<p><b>Decision</b> Art. 5.2 of HCA Statutes applies.</p>
	<b>10.</b>	<b>Date and Venue of Next Conferences</b>		
HCA19/48		<p><b>HCA</b> agreed on the principles that the workshops of HPWG and Region M ICCWG should be arranged as in-person meetings only.</p> <p><b>HCA</b> also noted the comment from <b>Australia</b> on the value of hybrid meetings.</p>		<b>Decision</b>
HCA19/49		<p><b>HCA Members</b> welcomed the confirmation of the offer from <b>Chile</b> to host HCA-20 in Punta Arenas, from 2 to 6 December 2025.</p>	<b>HCA-20</b>	<p>Logistic information to be provided at least six months prior to the event.</p>
HCA19/50		<p><b>HCA</b> welcomed the preliminary offer from <b>Türkiye</b> to consider hosting HCA-21 in April 2027 (dates and venue to be confirmed at the next Conference).</p>	<b>HCA-20</b>	<p>HCA Secretariat suggests no HCA Conference in 2026 due to A-4, VTC in 2026, if appropriate, or side discussion at A-4.</p>
	<b>12.</b>	<b>Closure – End of Conference</b>		
HCA19/51		<p>In conclusion, <b>Dr Mathias Jonas</b>, Secretary-General of the IHO and HCA Chair, thanked all participants for their valuable inputs to the Conference, the Chair of HPWG and Region M ICCWG Coordinator, and the out-going HCA Secretary.</p>		

