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FINALISED IHO WORK PROGRAMME FOR 2013

- References:
- A. XVIIIth IHC Conference Document CONF.18/REP/02 - *Proposed IHO Work Programme for 2013*
 - B. CL68/2012 dated 10 July 2012 - *P-7 Annual Report of the IHO for 2011. Part 1 General & Part 2 Finances*
 - C. CL86/2012 dated 12 September 2012 - *Updated IHO Budget for 2013*

Dear Hydrographer,

1. The draft IHO Work Programme for 2013 was submitted to Member States as Reference A. Reference B indicated that the final IHO Work Programme and Budget for 2013 would be distributed to Member States in August.
2. Reference C provided the updated budget for 2013 that took into account the changes approved at the XVIII International Hydrographic Conference (IHC) and provided finalised figures for the number of shares anticipated for the year 2013. The Directing Committee did not finalise the 2013 Work Programme at that time. This was delayed in order to take into account any possible consequences of the 2013 Work Programme of the Hydrographic Services and Standards committee (HSSC) that was finalised at its annual meeting in September. HSSC approved the development of an S-100 based Product Specification for surface currents. This has been included as Sub Task 2.2.3.1.
3. In addition, Sub Task 1.3.3.3 - *Celebrating World Hydrography Day in Member States* and Task 1.6.1 - *Organise the 5th EIHC* have been added. These appear to have been unintentionally omitted from the 2013 Work Programme presented to the XVIIIth IHC.
4. For the convenience of Member States, the finalised IHO Work Programme for 2013, showing the additions that have been made is included at Annex A. Member States are invited to submit comments, if any.

On behalf of the Directing Committee

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Robert Ward', is written over a light blue horizontal line.

Robert WARD
President

Annex A: Finalised IHO Work Programme for 2013

FINALISED IHO WORK PROGRAMME FOR 2013

Based on IHO Five-Year Work Programme 2013-2017 (see CONF.18/REP/01) and the approved IHO 2013 budget.

Element / Task	Title	Principal Director	Principal Manager	Strategic Direction
PROGRAMME 1 – CORPORATE AFFAIRS				
1.1	Co-operation with International Organizations and participation in relevant meetings			1 & 3
1.1.1	Antarctic Treaty Consultative Meeting (ATCM)	Pres	Huet	
1.1.2	<i>Comité International Radio Maritime</i> (CIRM)	DTech	Wyatt	
1.1.3	Council of Managers of National Antarctic Programs (COMNAP)	Pres	Huet	
1.1.4	European Union Initiatives	DTech	Costa Neves	
1.1.5	International Federation of Surveyors (FIG)	DCoord	Costa Neves	
1.1.6	International Federation of Hydrographic Societies (IFHS)	Pres	Wyatt	
1.1.7	International Association of Antarctic Tour Operators (IAATO)	Pres	Huet	
1.1.8	IALA (such as the e-NAV Committee)	DTech	Wyatt	
1.1.9	International Association of Ports and Harbours (IAPH)	Pres	Pharaoh	
1.1.10	International Cartographic Association (ICA) (such as ICA Commission on Geoinformation Infrastructures and Standards)	DTech	Huet	
1.1.11	International Electrotechnical Commission (IEC) (such as IEC Technical Committee 80)	DTech	Pharaoh	
1.1.12	International Maritime Organization (IMO), including:			
1.1.12.1	- Assembly	Pres	Wyatt	
1.1.12.2	- Council	Pres	Wyatt	
1.1.12.3	- MSC	Pres	Wyatt	
1.1.12.4	- COMSAR	DCoord	Wyatt	
1.1.12.5	- NAV	Pres, DTech	Wyatt	
1.1.12.6	- TCC	DCoord	Costa Neves	
1.1.13	International Maritime Pilots' Association (IMPA)	Pres	Wyatt	
1.1.14	Intergovernmental Oceanographic Commission (IOC) of UNESCO, including:			
1.1.14.1	- Assembly			
1.1.14.2	- Council	DCoord	Wyatt	
1.1.14.3	- Specialized WGs			
1.1.15	International Standards Organization (ISO), including:			
1.1.15.1	- ISO Technical Committee 211	DTech	Pharaoh	

Element / Task	Title	Principal Director	Principal Manager	Strategic Direction
1.1.16	Joint Board of GIS (JB-GIS)	Pres	Huet	
1.1.17	NATO geospatial bodies, such as:			
1.1.17.1	- DGIWG	DTech	Pharaoh	
1.1.18	UN, including:			
1.1.18.1	- UNICPOLOS	Pres	Huet	
1.1.18.2	- UN-GGIM			
1.1.19	World Meteorological Organization (WMO)	Pres	Wyatt	
1.1.20	Other organizations when their agendas have relevance to the programme of the IHO, such as : Group on Earth Observation (GEO); Pan-American Institute of Geography and History (PAIGH); Port Management Association West and Central Africa (PMAWCA) & Maritime Organizations of West and Central Africa (MOCWA); the Scientific Committee on Antarctic Research (SCAR)	Pres or Director and AD responsible for the relevant RHC when appropriate		
1.2	Information Management			1 & 4
1.2.1	Maintain and extend the IHO website using commercial contract support	Pres	Pharaoh	
1.2.2	Develop IHO GIS and web server and web mapping services in support of RHCs, ENC availability, INT chart coordination, C-55 and other related activities, including using commercial contract support	Pres	Pharaoh	
1.2.3	Develop and maintain IHB desk-top and in-house publishing facilities	Pres	Costa Neves	
1.2.4	Compile and publish the following documents that are not allocated to a specific IHO body, including:	Pres		
1.2.4.1	- P-5 – IHO Yearbook	Pres	Costa Neves	
1.2.4.2	- P-7 – IHO Annual Report	DCoord	Costa Neves	
1.2.4.3	- M-3 – Resolutions of the IHO	Pres	Costa Neves	
1.2.5	Maintain and extend IHB Admin IT infrastructure	Pres	Pharaoh	
1.2.6	Communication between the IHB and Member States through Circular Letters	Pres	Wyatt	
1.2.7	IHB Technical Library – incorporate new material	Pres	Wyatt	
1.3	Public Relations			3
1.3.1	Maintain relationships with the Government of Monaco and the diplomatic corps accredited in Monaco	Pres	Fauchois	
1.3.2	Compile and publish P-1 – <i>International Hydrographic Review</i> in collaboration with IHR editor	DCoord	Costa Neves	

Element / Task	Title	Principal Director	Principal Manager	Strategic Direction
1.3.3 1.3.3.1 1.3.3.2 1.3.3.3	World Hydrography Day, including: - Preparation of support materiel - Celebratory events in Monaco - Celebratory events in Member States	DCoord	Costa Neves	
1.3.4	General Public Relation support. Representation expenses	Pres	Costa Neves	
1.4	Work Programme & Budget, Strategic Plan and Performance Monitoring			1
1.4.1	Implement and administer processes for programme management, performance monitoring and risk assessment, including the acquisition and operation of suitable business software tools	Pres	Costa Neves	
1.4.2	Execute the IHO Work Programme and Budget approved by the XVIIIth IHC, monitoring its progress and adopting the necessary adjustment according to the circumstances	Pres	Fauchois	
1.4.3	Conduct biennial IHO stakeholders' forums	DTech	as required according to topics	
1.5	IHB Management			1
1.5.1	Maintain, update and develop necessary procedures to facilitate and improve effectiveness of the general and permanent Finance and Administrative work.	Pres	Fauchois	
1.5.2	Provide in-house translation service English/French and French/English in support of the IHO WP. Include Spanish translations as much as possible in accordance with relevant IHO Resolutions	DCoord	Costa Neves	
1.5.3 1.5.3.1 1.5.3.2 1.5.3.3	Engage contract support to supplement maintenance and development of technical standards beyond the resources or competence of the IHB or the IHO WGs, including: - Translation - Technical editing - Cataloguing the IHO working document archive	Pres DCoord DTech Pres	Fauchois Costa Neves Costa Neves Fauchois	
1.5.4	Monitor and maintain the Staff Regulations and the Job Descriptions of the IHB Staff in step with the evolution of the IHO work programme and IHO requirements.	Pres	Fauchois	
1.5.5	Maintain the IHB premises as required as the occupant	Pres	Fauchois	
1.5.6	Maintain furniture, carry out renovations or modifications as requirements arise	Pres	Pharaoh	
1.6	International Hydrographic Conference			1 & 4
1.6.1	Organize the 5th Extraordinary International Hydrographic Conference in 2014	DCoord	Costa Neves	
PROGRAMME 2 "Services and Standards"				
2.1	Technical Programme Coordination			2
2.1.1	Conduct annual meeting of HSSC	DTech	Huet	

Element / Task	Title	Principal Director	Principal Manager	Strategic Direction
2.1.2	Provide technical advice and guidance on IHO technical standards, specification and publications	DTech	Pharaoh	
2.2	Hydrographic Data Transfer Standards			3 & 4
2.2.1	Conduct meetings of relevant HSSC WGs dealing with hydrographic data transfer standards	DTech	Pharaoh	
2.2.2	Maintain and extend the relevant IHO standards, specifications and publications, using contract support assistance as appropriate, including:		Pharaoh	
2.2.2.1	- S-57 IHO Transfer Standard for Digital Hydrographic Data		Pharaoh	
2.2.2.2	- S-100 IHO Universal Hydrographic Data Model		Pharaoh	
2.2.2.3	- S-101 ENC Product Specification		Pharaoh	
2.2.2.4	- S-102 Bathymetric Surface Product Specification		Pharaoh	
2.2.2.5	- S-58 Recommended ENC Validation Checks		Pharaoh	
2.2.2.6	- S-65 ENC Production Guidance	DTech	Pharaoh	
2.2.2.7	- S-64 IHO Test Data Sets for ECDIS		Huet	
2.2.2.8	- S-61 Product Specification for Raster Navigational Charts		Pharaoh	
2.2.2.9	- S-99 Operational Procedures for the Organization and Management of the S-100 Geospatial Information Registry		Pharaoh	
2.2.2.10	- S-66 Facts about Electronic Charts and Carriage Requirements		Huet	
2.2.2.11	Participate in RENC Joint Technical Experts WG (JTEWG)		Pharaoh	
2.2.3	Develop and maintain S-100-based Product Specifications, including:		Pharaoh	
2.2.3.1	- Product Specification for surface currents	DTech	Pharaoh	
2.2.4	Maintain and extend S-100 registry	DTech	Pharaoh	
2.2.5	Provide outreach and technical assistance regarding transfer standards	DTech	Pharaoh	
2.3	Nautical Cartography			2
2.3.1	Conduct meetings of relevant HSSC WGs dealing with nautical cartography	DTech	Huet	
2.3.2	Maintain and extend the relevant IHO standards, specifications and publications, using contract support assistance as appropriate, including:			
2.3.2.1	- S-4 Chart Specifications of the IHO and Regulations for International (INT) Charts		Huet	
2.3.2.2	- INT 1 - Symbols, Abbreviations and Terms used on Charts		Huet	
2.3.2.3	- INT 2 - Borders, Graduations, Grids and Linear Scales	DTech	Huet	
2.3.2.4	- INT 3 - Use of Symbols and Abbreviations		Huet	
2.3.2.5	- S-11 Part A - Guidance for the Preparation and Maintenance of INT Chart schemes		Huet	
2.3.2.6	- S-11 Part B - Catalogue of INT Charts		Huet	
2.3.2.7	- S-49 Standardization of Mariners' Routeing Guides		Huet	

Element / Task	Title	Principal Director	Principal Manager	Strategic Direction
2.3.2.8	- Digital data updating related elements of Appendix 1 to S-52 - Guidance on Updating the Electronic Navigational Chart		Huet	
2.3.2.9	- S-52 and its accompanying Presentation Library - Specifications for Chart Content and Display Aspects of ECDIS		Costa Neves	
2.3.2.10	- Portrayal related elements of S-101 - ENC Product Specification and other S-100-base		Costa Neves	
2.4	Digital Data Protection and Authentication			2
2.4.1	Conduct meetings of relevant HSSC WGs dealing with Data Protection and Authentication	DTech	Pharaoh	
2.4.2	Maintain and extend the relevant IHO standards, specifications and publications, including:			
2.4.2.1	- S-63 IHO Data Protection Scheme		Pharaoh	
2.4.2.2	- Data protection and authentication	DTech	Pharaoh	
2.4.2.3	- related elements of S-100 - IHO Universal Hydrographic Data Model		Pharaoh	
2.4.2.4	- S-101 - ENC Product Specification		Pharaoh	
2.5	Data Quality			2
2.5.1	Conduct meetings of relevant HSSC WG dealing with data quality	DTech	Huet	
2.5.2	Maintain and extend the relevant IHO standards, specifications and publications, including:			
2.5.2.1	Data quality related elements of S-57 - IHO Transfer Standard for Digital Hydrographic Data		Pharaoh	
2.5.2.2	Data quality related elements of S-100 - IHO Universal Hydrographic Data Model	DTech	Huet	
2.5.2.3	Data quality related elements of:		Huet	
2.5.2.3.1	- S-52 - Specifications for Chart Content and Display Aspects of ECDIS		Huet	
2.5.2.3.2	- S-101 - ENC Product Specification and other S-100-based Product Specifications		Huet	
2.6	Nautical Publications			2
2.6.1	Conduct meetings of relevant HSSC WG dealing with nautical publications	DTech	Pharaoh	
2.6.2	Develop, maintain and extend S-10n - Nautical Information Product Specification	DTech	Pharaoh	
2.6.3	Maintain and extend the relevant IHO standards, specifications and publications, including:		Wyatt	
2.6.3.1	- IHO Resolutions in M-3 relating to Nautical Publications	DTech	Pharaoh	
2.6.3.2	- S-12 Standardization of List of Lights and Fog Signals		Wyatt	
2.7	Tides and Water Levels			2
2.7.1	Conduct meetings of relevant HSSC WG dealing with tides and water levels	DTech	Wyatt	
2.7.2	Maintain and extend the relevant IHO standards, specifications and publications, including:			
2.7.2.1	Relevant IHO Resolutions in M-3	DTech	Wyatt	
2.7.2.2	S-60 User's Handbook on Datum Transformations involving WGS 84			

Element / Task	Title	Principal Director	Principal Manager	Strategic Direction
2.7.2.3	Standard Tidal Constituent List			
2.7.2.4	Inventory of Tide Gauges used by Member States			
2.7.3	Develop, maintain and extend a Product Specification for digital tide tables	DTech	Wyatt	
2.7.4	Develop, maintain and extend a Product Specification for the transmission of real-time tidal data	DTech	Wyatt	
2.7.5	Develop, maintain and extend a Product specification for dynamic tides in ECDIS	DTech	Wyatt	
2.8	Digital Data Updating			2
2.8.1	Maintain and extend the relevant IHO standards, specifications and publications, including:	DTech	Huet	
2.8.1.1	Digital data updating related elements of S-65 - ENC Production Guidance	DTech	Huet	
2.8.1.2	S-52 Appendix 1 - Guidance on Updating the Electronic Navigational Chart	DTech	Huet	
2.9	Marine Spatial Data Infrastructures			2 & 4
2.9.1	Conduct meetings of relevant HSSC WG dealing with MSDI	DTech	Huet	
2.9.2	Maintain the relevant IHO standards, specifications and publications, including:	DTech	Huet	
2.9.2.1	C-17 Spatial Data Infrastructures: "The Marine Dimension" - Guidance for Hydrographic Offices			
2.1	Hydrographic Data Acquisition and Processing			
2.10.2	Maintain and extend, when required, the relevant IHO standards, specifications and publications, including:	DTech	not allocated until WG or WP tasks established	
2.10.2.1	S-44 - IHO Standards for Hydrographic Surveys			
2.11	Hydrographic Dictionary			
2.11.1	Maintain and extend the IHO Hydrographic Dictionary in English, French and Spanish.	DTech	Wyatt	
2.11.2	Develop the Spanish language Wiki version of S-32 with commercial contract support	DTech	Wyatt	
2.12	ABLOS			
2.12.1	Organize and prepare ABLOS annual business meeting	DTech	Wyatt	
2.12.2	Organize and prepare the biennial ABLOS Conference	DTech	Wyatt	
2.12.3	Contribute to the revision of IHO publication C-51-TALOS Manual	DTech	Wyatt	
PROGRAMME 3 " Inter Regional Coordination and Support"				
3.0	Inter Regional Coordination Committee (IRCC)			1 & 2
3.0.1	Conduct annual meeting of IRCC			
3.0.1.1	Support the IHB to implement the planning mechanism annually and at the end of each 5-year (3-year) cycle	DCoord	Costa Neves	
3.1.1.2	Contribute to the IHO Annual Report.			

Element / Task	Title	Principal Director	Principal Manager	Strategic Direction
3.1.1.3	Update and implement the IRCC Work Programme			
31	Cooperation with Member States and attendance at relevant meetings			1 & 2
3.1.1	ARHC – Arctic Region Hydrographic Commission	Pres	Huet	
3.1.2	BSHC - Baltic Sea Hydrographic Commission	DCoord	Wyatt	
3.1.3	EAHC - East Asia Hydrographic Commission	Pres	Pharaoh	
3.1.4	EAtHC - Eastern Atlantic Hydrographic Commission	DTech	Huet	
3.1.5	MACHC - Meso American and Caribbean Hydrographic Commission	Pres	Costa Neves	
3.1.6	MBSHC - Mediterranean and Black Seas Hydrographic Commission	DCoord	Costa Neves	
3.1.7	NHC - Nordic Hydrographic Commission	DTech	Pharaoh	
3.1.8	NIOHC - North Indian Ocean Hydrographic Commission.	DCoord	Wyatt	
3.1.9	NSHC - North Sea Hydrographic Commission	DTech	Wyatt	
3.1.10	RSAHC - ROPME Sea Area Hydrographic Commission	DCoord	Wyatt	
3.1.11	SAIHC - Southern Africa and Islands Hydrographic Commission	Pres	Pharaoh	
3.1.12	SEPHC - South East Pacific Hydrographic Commission	DTech	Costa Neves	
3.1.13	SWAtHC - South West Atlantic Hydrographic Commission	DTech	Costa Neves	
3.1.14	SWPHC - South West Pacific Hydrographic Commission	Pres	Huet	
3.1.15	USCHC - USA and Canada Hydrographic Commission.	DCoord	Pharaoh	
3.1.16	HCA - Hydrographic Commission on Antarctica.		Huet	
3.1.16.1	HCA to conduct a risk assessment for the Antarctic region and develop a Work Program to improve Antarctic charting	Pres		
3.1.17	WEND Working Group	DCoord	Costa Neves	
3.1.18	Industry participation in RHC meetings.	Director & AD responsible for relevant RHC		
3.1.19	Contribute to improving the framework of IHO response to marine disasters.	DCoord	Wyatt	
3.2	Increase participation by non Member States			1 & 3
3.2.1	EAHC - Execute strategy to increase participation of non-Member States in IHO activities and advise them on how to comply with international regulations such as SOLAS V.	Pres	Huet	
3.2.2	EAtHC - Execute strategy to increase participation of non-Member States in IHO activities and advise them on how to comply with international regulations such as SOLAS V	DTech	Huet	
3.2.2.1	Maintain contact with pending applicants in the region to encourage the ratification of the IHO Convention			

Element / Task	Title	Principal Director	Principal Manager	Strategic Direction
3.2.2.2	Maintain contact with suspended Member State in the region to encourage its re-insertion in IHO			
3.2.3	MACHC - Execute strategy to increase participation of non-Member States in IHO activities and advise them on how to comply with international regulations such as SOLAS V.	Pres	Costa Neves	
3.2.3.1	Contact suspended Member State in the region to encourage its re-insertion in IHO			
3.2.4	MBSHC - Execute strategy to increase participation of non-Member States in IHO activities and advise them on how to comply with international regulations such as SOLAS V	DCoord	Costa Neves	
3.2.5	NIOHC - Execute strategy to increase participation of non-Member States in IHO activities and advise them on how to comply with international regulations such as SOLAS V	DCoord	Wyatt	
3.2.6	RSAHC - Execute strategy to increase participation of non-Member States in IHO activities and advise them on how to comply with international regulations such as SOLAS V	DCoord	Wyatt	
3.2.7	SAIHC - Execute strategy to increase participation of non-Member States in IHO activities and advise them on how to comply with international regulations such as SOLAS V.	Pres	Pharaoh	
3.2.8	SEPHC - Execute strategy to increase participation of non-Member States in IHO activities and advise them on how to comply with international regulations such as SOLAS V. Continue the efforts to include Panama as Observer Country to the Commission.	DTech	Costa Neves	
3.2.9	SWAtHC - Execute strategy to increase participation of non-Member States in IHO activities and advise them on how to comply with international regulations such as SOLAS V	DTech	Costa Neves	
3.2.10	SWPHC - Execute strategy to increase participation of non-Member States in IHO activities and advise them on how to comply with international regulations such as SOLAS V	Pres	Huet	
3.2.11	RHCs to encourage the approval of pending applications for IHO membership	Director & AD responsible for relevant RHC		
3.2.12	IHO Convention:	Director & AD responsible for relevant RHC		
3.2.12.1	- RHCs to encourage the ratification of the IHO Convention by approved applicants.			
3.2.12.2	- Secure the ratification of the Protocol of Amendments to the IHO Convention.			
3.3	Capacity Building Management			1 & 4
3.3.1	CBSC - Capacity Building Sub-Committee	DCoord	Costa Neves	
3.3.1.1	Organize, prepare, conduct and report annual CBSC meetings			
3.3.1.2	Follow-up the coordination required to execute the action lists agreed			
3.3.1.3	Maintain IHO publication M-2 - <i>The Need for National Hydrographic Services</i>			
3.3.1.4	Contribute to the development of MSDI			
3.3.2	Manage Capacity Building Fund	DCoord	Costa	

Element / Task	Title	Principal Director	Principal Manager	Strategic Direction
3.3.2.1	Develop and maintain a CB Management system		Neves, Fauchois	
3.3.3	Meetings with other organizations, funding agencies, private sector and academia	DCoord	Costa Neves	
3.3.4	IHO Capacity Building Strategy. CBSC to keep the IHO Capacity Building Strategy updated. At each CBSC meeting, the Sub-Committee is to review the Strategy in the light of new elements, update it accordingly and display it in the IHO website.	DCoord	Costa Neves	
3.3.5	Capacity Building Work Programme			
3.3.5.1	CBSC to study the CB needs presented to the CBSC by the RHCs, to foster the sharing of lessons learned and to help RHCs to develop best practices			
3.3.5.2	CBSC to develop and propose an annual IHO Capacity Building Work Program (CBWP) to be included in the general IHO WP	DCoord	Costa Neves	
3.3.5.3	CBSC to maintain and control the execution of the approved CBWP			
3.3.6	Follow-up of CB activities and initiatives, including:			
3.3.6.1	CBSC to follow-up the CB activities and initiatives, especially those for which the CB Fund and MSs have contributed			
3.3.6.2	To study and install measures to improve the technical work with the Management Plan, i.e. developing a database, aiming at reducing the administrative work	DCoord	Costa Neves	
3.3.7	IBSC - International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers			
3.3.7.1	Conduct and report annual IBSC meetings	DCoord	Costa Neves	
3.3.7.2	Implement the IBSC Work Programme			
3.3.7.3	Manage the IBSC Fund and report to IHO			
3.3.8	Provide guidance to training institutions	DCoord	Costa Neves	
3.3.9	Maintain IBSC Publications (C-6, C-47, S-5, S-8)			
3.3.9.1	IBSC to develop a new Standards framework to separate competency requirements for Cat A and Cat B	DCoord	Costa Neves	
3.4	Capacity Building Assessment			3 & 4
3.4.1	Technical and advisory visits. RHCs, with the support of the CBSC Chair and IHB, to establish appropriate teams of experts and to schedule and undertake Technical and Advisory Visits to assess the status of hydrography, cartography and aids to navigation in accordance with the IHO CBWP	Director & AD responsible for relevant RHC		
3.4.2	Review and maintain CB procedures	DCoord	Costa Neves	

Element / Task	Title	Principal Director	Principal Manager	Strategic Direction
3.4.3	Enhance publication C-55. IHB with the support of the RHCs, CBSC and GGC to develop a new framework for C-55	DCoord	Costa Neves	
3.5	Capacity Building Provision			2 & 3 & 4
3.5.1	Raise Awareness on the Importance of Hydrography	DCoord	Costa Neves	
3.5.2	Technical Workshops, Seminars, Short Courses	DCoord	Costa Neves	
3.5.3	IHB, in conjunction with IBSC and CBSC, to encourage the development and delivery of new Hydrographic and Nautical Cartography Programs, including the establishment of new Hydrographic Schools where that regional capacity does not exist. Report to the IHO on the results	DCoord	Costa Neves	
3.5.4	On the Job Training (ashore / on board). CBSC, with IHB support, to investigate "on-the-job training opportunities" ashore and on board (ships of opportunity)	DCoord	Costa Neves	
3.5.5	IHB, with the support of CBSC and RHCs, to ensure awareness of multilateral or bilateral projects with hydrographic and/or cartographic components, and to provide advice to governments, project managers and funding agencies on the importance of including a hydrographic Capacity Building Component. Report to IHO annually on the results obtained	DCoord	Costa Neves	
3.5.6	CBSC to foster bilateral agreements in order to help satisfy SOLAS V/9	DCoord	Costa Neves	
3.6	Coordination of Global Surveying and Charting			2
3.6.1	C-55 Status of Hydrographic Surveying and Nautical Charting World-wide			
3.6.1.1	MS to provide annual updates to C-55			
3.6.1.2	IHB to implement new framework for publication C-55	DCoord	Costa Neves	
3.6.1.3	IHB to report periodically to IMO on limitations and requirements for improvements in global charting and associated services			
3.6.2	WEND WG to foster the implementation of the WEND principles, monitor progress and report to IRCC			
3.6.2.1	WG to facilitate the production, distribution and updating of ENC cartographic products ensuring uniform ENC quality and consistency	DCoord	Costa Neves	
3.6.2.2	WG to facilitate the resolution of gaps and overlaps in ENC coverage			
3.6.2.3	WG to facilitate the promotion of RENC co-operation for the benefit of ENC end-users			
3.6.3	Maintain and coordinate ENC schemes, consistency and quality			
3.6.3.1	RHCs to develop ENC schemes in their regions and coordinate the production and maintenance of ENC	DCoord	Costa Neves	
3.6.4	Maintain and coordinate INT Chart Schemes and improve the availability of the INT Chart Series	DCoord	Huet	

Element / Task	Title	Principal Director	Principal Manager	Strategic Direction		
3.6.4.1	RHCs to coordinate INT Chart Schemes and coordinate the production of INT Chart in their region					
3.6.5	Contribute to monitoring and improving the global status of hydrographic surveying	DCoord	Costa Neves			
3.7	Maritime Safety Information			1 & 2		
3.7.1	WWNWS-SC - World-Wide Navigational Warning Service Sub-Committee. Organize, prepare, attend and report annual WWNWS-SC meetings	DCoord	Wyatt			
3.7.2	WWNWS Document Review Working Group. Conduct annual meetings of the WWNWS Document Review WG					
3.7.3	Maintain and extend the following IHO standards, specifications and publications:					
3.7.3.1	- relevant IHO Resolutions in M-3					
3.7.3.2	- S-53 - Joint IMO/IHO/WMO Manual on Maritime Safety Information					
3.7.4	Liaise with IMO and WMO on the delivery of MSI within the GMDSS					
3.7.5	Participate and contribute to the IMO work items on the modernization of the GMDSS and the development of the e-navigation implementation plan					
3.7.6	Improve the delivery and exploitation of MSI to global shipping by taking full advantage of technological developments					
3.8	Ocean Mapping Programme			1 & 2 & 3		
3.8.1	Conduct meetings of relevant GEBCO bodies:	DCoord				
3.8.1.1	- Guiding Committee				Wyatt	
3.8.1.2	- TSCOM				Pharaoh	
3.8.1.3	- SCRUM					
3.8.1.4	- SCUFN					Huet
3.8.2	Ensure effective operation of IHO Digital Bathymetry Data Center (DCDB)				Pharaoh	
3.8.3	Encourage the contribution of bathymetric data to the IHO DCDB				Pharaoh	
3.8.3.1	Identify priority areas for regional mapping.					
3.8.3.2	Promote data contribution through GEBCO participation in RHCs meetings					
3.8.3	Maintain IHO bathymetric publications, including:				Pharaoh	
3.8.3.1	- B-4 - Information concerning recent bathymetric data					Huet
3.8.3.2	- B-6 - Standardisation of undersea feature names					Wyatt
3.8.3.3	- B-7 - GEBCO guidelines					Huet
3.8.3.4	- B-8 - Gazetteer					Pharaoh
3.8.3.5	- B-9 - GEBCO digital atlas	Wyatt				
3.8.3.6	- B-10 - The history of GEBCO					

Element / Task	Title	Principal Director	Principal Manager	Strategic Direction
3.8.3.7	- B-11 - GEBCO Cookbook		Pharaoh	
3.8.3.8	Develop the on-line function of B-4		Pharaoh	
3.8.4	Contribute to outreach and education about ocean mapping. Increase understanding of the importance of hydrography and interest in following ocean mapping as a career through activities such as:		Wyatt	
3.8.4.1	Development of outreach materials (paper maps, brochures, web-based presentations) and educational materials;			
3.8.4.2	Printing of GEBCO World Map at various locations in MS			
3.8.5	GEBCO Web site kept current and updated regularly		Pharaoh	
3.8.6	Develop short course and course material on compiling digital bathymetric models (DBMs) to be included in GEBCO from a heterogeneous bathymetric source database. Associated deliverables: -a course curriculum		Wyatt	
3.8.7	Update and enhance the GEBCO Gazetteer (B-8) for internet access		Huet	
3.8.7.1	Provide the GEBCO Gazetteer as a web service via a geospatially enabled database			
3.8.7.2	Develop and make available public and management on-line interfaces to the Gazetteer			