3RD MEETING OF THE HYDROGRAPHIC SERVICES AND STANDARDS COMMITTEE IHB, Monaco, 8-10 November 2011

DRAFT IHO FIVE-YEAR WORK PROGRAMME

2013 - 2017

PREAMBLE

In accordance with Article 23 (c) of the IHO General Regulations, the Directing Committee, taking into consideration the work of the Committees and Working Groups, shall present to each International Hydrographic Conference, a proposal containing the Work Programme to be carried out during the following period (2013-2017) with the financial implications related to it

For the preparation of such a document, the Directing Committee requested the Chairmen of all IHO bodies to contribute to this process by providing input to make the IHO Work Programme document as complete as possible with regard to the activities that the Organization plans to undertake in the next five-year period.

As you are aware, the IHO has defined three Programmes to meet its goals:

Programme 1 "Corporate Affairs" under the responsibility of the International Hydrographic Bureau (to be replaced by the Secretary General when the revised IHO Convention enters into force);

Programme 2 "Hydrographic Services and Standards" under the responsibility of the relevant Committee (HSSC);

Programme 3 "Inter Regional Coordination and Support" under the responsibility of the Inter Regional Coordination Committee (IRCC).

The document provided here follows that structure.

Under each programme there are various elements, with a clearly stated objective for each, followed by the tasks (actions). In identifying the tasks, the input from the Chairs of the relevant IHO bodies together with other information held by the IHB have been taken into account.

Annex A lists all tasks with an indication of the timeframe in which each task is expected to be executed. This layout will serve as the basis and guide for the preparation of the yearly work programmes during the period. TO BE PREPARED

Annex B shows the budget required to execute the Programme in Annex A. It provides a cross-reference between the proposed 2013-2017 IHO Budget and the Work Programme.

TO BE PREPARED

A table of graphs is also provided, illustrating for each Programme the resources allocated from the different Chapters of the budget. TO BE PREPARED

The Directing Committee submits the IHO FIVE-YEAR WORK PROGRAMME 2013-2017 for the approval of the XVIIIth IH Conference, in April 2012.

PROGRAMME 1 - "CORPORATE AFFAIRS"

Concept: This Programme seeks to ensure the effectiveness of the IHO, promote its roles and objectives and ensure that it operates efficiently and effectively.

Element 1.1 Cooperation with International Organizations and participation in relevant meetings

Objective: To maintain relationships with relevant international organizations in order to further the interests of the IHO by enlisting their support and cooperation, and to participate in projects of common interest.

Task 1.1.1	Represent IHO and participate in international forums dealing with
	matters of relevance to the IHO WP, including:

1.1.1.1	Antarctic Treaty Consultative Meeting (ATCM)	1 meeting annually
1.1.1.2	Comité International Radio Maritime (CIRM)	1 meeting annually
1.1.1.3	Council of Managers of National Antarctic Programs (COMNAP)	1 meeting annually
1.1.1.4	EU (such as INSPIRE)	2 meetings annually
1.1.1.5	International Federation of Geometres (FIG)	1 meeting every 2 years
1.1.1.6	International Federation of Hydrographic Societies (IFHS)	should this be included?
1.1.1.7	International Association of Antarctic Tour Operators (IAATO)	1 meeting annually
1.1.1.8	IALA (such as the e-NAV Committee)	2 meetings annually
1.1.1.9	International Association of Ports and Harbours (IAPH)	should this be included?

1.1.1.10	International Cartographic Association (ICA) (such as ICA Commission on Geoinformation Infrastructures and Standards)	1 meeting annually
1.1.1.11	International Electrotrechnical Commission (IEC) (such as IEC Technical Committee 80)	2 meetings annually
1.1.1.12	International Maritime Organization (IMO)	7 meetings annually
1.1.1.13	International Maritime Pilots' Association (IMPA)	1 meeting annually
1.1.1.14	International Standards Organization (ISO) (such as ISO Technical Committee 211)	2 meetings annually
1.1.1.15	Joint Board of Geospatial Information Societies (JB-GIS)	1 meeting annually
1.1.1.16	NATO (such as DGIWG)	1 meeting annually
1.1.1.17	Pan-American Institute of Geography and History (PAIGH)	should this be included?
1.1.1.18	Port Management Association West and Central Africa (PMAWCA) & Maritime Organizations of West and Central Africa (MOCWA)	should this be included?
1.1.1.19	Scientific Committee on Antarctic Research (SCAR)	should this be included?
1.1.1.20	UN (such as UNICPOLOS, CGGIM)	2 meetings annually
1.1.1.21	Other organizations when their agendas have relevance to the programme of the IHO	
1/1/1/22	Intergovernmental Oceanographic Commission (IOC) of UNESCO	2 meetings annually
1.1.1.23	any others to go in here???	

Task 1.1.2 Maintain relationships with the Government of Monaco and the diplomatic corps accredited in Monaco.

Task 1.1.3

Element 1.2 Information Management

Objective: To provide MS and IHO stakeholders with accurate and relevant information in a timely and accessible manner.

Task 1.2.1	Maintain the IHO website	2013-17	no specific costs anticipated
NEW TASK	Develop IHO GIS and webserver and web mapping services in support of RHCs, ENC availability, INT chart coordination, C-55 and other related activities, including using commercial contract support	2013-17	2013: 25K 2014: 10K 2015: 10K per annum
Task 1.2.2	Extend the IHO website using commercial contract support	2013-15	2013: 20K 2014: 10K 2015: 10K
Task 1.2.3	Develop and maintain IHB desk-top and in-house publishing facilities	2013-17	7.5K each year
Task 1.2.3	Compile and publish the following documents that are not allocated to a specific IHO body: P-5 – IHO Yearbook P-7 – IHO Annual Report P-6 – Reports of IHC		no significant IHO expense anticipated
	M-3 – Technical and Administrative Resolutions		
1.2.4	Maintain and extend IHB Admin IT infrastructure	2013-17	60K each year (includes hardware, software and contract maintenance support)

Element 1.3 Public Relations

Objective: To raise awareness of the role of the IHO and its Member States and the importance of hydrography, particularly by government and in the user community.

Task 1.3.1

Task 1.3.2 Compile and publish P-1 – *International Hydrographic Review* in collaboration with IHR editor

cost of the editor and printing in here

Task 1.3.3 World Hydrography Day

IHB expenses: ?1500€ per year

Task 1.3.4

Element 1.4 IHO

Objective: To ensure that the IHO and the execution of its work Programme is managed, monitored and executed efficiently to best meet the requirements of Member States. This Element focuses on the implementation of the IHO's Strategic Plan particularly with regard to risk assessment and performance indicators.

Task 1.4.1 Implement and administer processes for program management, performance monitoring and risk assessment, including the acquisition and operation of suitable business software tools

2013-17 ???????

Task 1.4.2

Task 1.4.3

Element 1.5 IHB Management

Objective: To ensure that the IHB meets the requirements set by its Member States, by providing the best service (quality, opportunity, reasonable cost) within the resources available.

Task 1.5.1 Engage contract support to supplement maintenance and development of technical standards beyond the resources or competence of the IHB or the IHO WGs, including:

2013-17 40K each year

Translation

Technical editing

Cataloguing the IHO working document archive

?????

Task 1.5.2

Task 1.5.3

Element 1.6 International Hydrographic Conferences or Future Assemblies

Objective: To ensure the successful functioning of Conferences or Assemblies so that they fulfil their top-level governance and decision-making functions in accordance with Convention and the other Instruments of the Organization.

Task 1.6.1

Task 1.6.2

Task 1.6.3

PROGRAMME 2 - "HYDROGRAPHIC SERVICES AND STANDARDS"

Concept: This Programme seeks to develop, maintain and extend technical standards, specifications and guidelines to enable the provision of standardised products and services that meet the requirements of mariners and other users of hydrographic information.

Element 2.1 Technical Programme Coordination

Objective: To monitor technical developments, oversee the development of IHO technical standards, specifications and publications through the coordination and interaction of relevant IHO Working Groups, and to make recommendations to Member States.

Task 2.1.1	Conduct annual meetings of HSSC	2013-17	1meeting per year, 1Dir + 2PA per meeting
Task 2.1.2	Conduct biennial IHO stakeholders' forums	2013 2015 2017	1 meeting every 2 years, at least 1Dir + 2PA per meeting
Task 2.1.3	Provide technical advice and guidance on IHO technical standards, specification and publications	2013-17	= 0.25 D/PA man-years

Element 2.2 Hydrographic Data Transfer Standards

Objective: To monitor developments related to transfer standards for digital hydrographic data, to develop and maintain the relevant IHO standards, specifications and publications, and to provide technical advice as appropriate.

Task 2.2.1 Conduct annual and biennial meetings of relevant HSSC WGs dealing with hydrographic data transfer standards 2013-17 3 meetings per year, 1 PA per meeting

Task 2.2.2	Maintain and extend the following IHO standards, specifications and publications, using contract support assistance as appropriate:		contract support: 15K each year
	S-57 - IHO Transfer Standard for Digital Hydrographic Data		
	S-100 - IHO Universal Hydrographic Data Model		
	S-101 - ENC Product Specification		
	S-102 - Bathymetric Surface Product Specification		
	S-58 - Recommended ENC Validation Checks	·	
	S-65 - ENC Production Guidance	\	
	S-64 - IHO Test Data Sets for ECDIS		
	S-61 - Product Specification for Raster Navigational Charts		
	S-99 - Operational Procedures for the Organization and Management of the S-100 Geospatial Information Registry		
	S-66 - Facts about Electronic Charts and Carriage Requirements		
	????		
Task 2.2.6	Develop and maintain as-yet undefined S-100-based Product Specifications	2013-14	1 meeting per year, 1 PA per meeting
Task 2.2.7	Maintain and extend S-100 registry	2013-17	no significant IHO expense anticipated
Task 2.2.8	Provide outreach and technical assistance regarding transfer standards	2013-17	1meeting per year, 1Dir + 1PA per meeting
Task 2.2.9	?????		
Task 2.2.10	Y Y		

Element 2.3 Nautical Cartography

Objective: To monitor developments related to nautical cartography for paper nautical charts and the colours, symbols and display rules used to show SENC information on ECDIS, to develop and maintain the relevant IHO standards, specifications and publications, and to provide technical advice as appropriate.

Гask 2.3.1	Conduct annual meetings of relevant HSSC WGs dealing with nautical 2013-17 2 meetings per year, 1 PA per meeting cartography
Гаsk 2.3.2	Maintain and extend the following IHO standards, specifications and publications, using contract support assistance as appropriate: 2013-17 Contract support: 15K each year publications, using contract support assistance as appropriate:
	S-4 - Chart Specifications of the IHO and Regulations for International (INT) Charts
	INT 1 - Symbols, Abbreviations and Terms used on Charts
	INT 2 - Borders, Graduations, Grids and Linear Scales
	INT 3 - Use of Symbols and Abbreviations

S-11 Part B - Catalogue of INT Charts

INT Chart schemes

S-49 - Standardization of Mariners' Routeing Guides

Digital data updating related elements of Appendix 1 to S-52 - *Guidance on Updating the Electronic Navigational Chart*

S-11 Part A - Guidance for the Preparation and Maintenance of

S-52 and its accompanying Presentation Library - Specifications for Chart Content and Display Aspects of ECDIS

Portrayal related elements of S-101 - *ENC Product Specification* and other S-100-based Product Specifications

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Element 2.4 Digital Data Protection and Authentication

Objective: To monitor developments related to data protection and data authentication, to develop and maintain the relevant IHO standards, specifications and publications, and to provide technical advice as appropriate.

Task 2.4.1 Conduct annual meetings of relevant HSSC WG dealing with digital 2013-17 1 meeting per year, 1 PA per meeting data protection and authentication

Task 2.4.2 Maintain and extend the following IHO standards, specifications and publications:

S-63 - IHO Data Protection Scheme

Data protection and authentication related elements of S-100 - *IHO Universal Hydrographic Data Model* and S-101 - *ENC Product Specification*

Task 2.4.3

Element 2.5 Data Quality

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Objective: To monitor developments related to methods of classifying and depicting the quality of hydrographic information, to develop and maintain the relevant IHO standards, specifications and publications, and to provide technical advice as appropriate.

Task 2.5.1 Conduct annual meetings of relevant HSSC WG dealing with data 2013-17 1 meeting per year, 1 PA per meeting quality

no significant IHO expense anticipated

Task 2.5.2 Maintain and extend the following IHO standards, specifications and publications:

> Data quality related elements of S-57 - IHO Transfer Standard for Digital Hydrographic Data

Data quality related elements of S-52 - Specifications for Chart Content and Display Aspects of ECDIS

Data quality related elements of S-100 - IHO Universal Hydrographic Data Model, S-101 - ENC Product Specification and other S-100-based Product Specifications

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Task 2.5.3

Element 2.6 Nautical Publications

Objective: To monitor developments related to the preparation of nautical publications, to develop and maintain the relevant IHO standards, specifications and publications, and to provide technical advice as appropriate.

Task 2.6.1	Conduct annual meetings of relevant HSSC WG dealing with	2013-17	1 meeting per year, 1 PA per meeting
	nautical publications		

- Task 2.6.2 Develop, maintain and extend S-10n - Nautical Information Product no significant IHO expense anticipated Specification
- Maintain and extend the following IHO standards, specifications Task 2.6.3 and publications:

IHO Resolutions in M-3 relating to Nautical Publications

S-12 - Standardization of List of Lights and Fog Signals

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no significant IHO expense anticipated

no significant IHO expense anticipated

Element 2.7 Tides and Datums

Objective: To monitor developments related to tidal and water level observation, analysis and prediction and other related information including vertical and horizontal datums, to develop and maintain the relevant IHO standards, specifications and publications, and to provide technical advice as appropriate.

Task 2.7.1	Conduct annual meetings of relevant HSSC WG dealing with tides and datums	2013-17	1 meeting per year, 1 PA per meeting
Task 2.7.2	Maintain and extend the following IHO standards, specifications and publications:	2013-17	no significant IHO expense anticipated
	Relevant IHO Resolutions in M-3		
	S-60 - User's Handbook on Datum Transformations involving WGS 84		
	Standard Tidal Constituent List		
	Inventory of Tide Gauges used by Member States		
Task 2.7.3	Develop, maintain and extend a Product Specification for digital tide tables	2013-17	no significant IHO expense anticipated
Task 2.7.4	Develop, maintain and extend a Product Specification for the transmission of real-time tidal data	2013-17	no significant IHO expense anticipated
Task 2.7.5	Develop, maintain and extend a Product specification for dynamic tides in ECDIS	2013-17	no significant IHO expense anticipated

Element 2.8 Digital Data Updating

Objective: To monitor developments in standardized processes for the updating of digital hydrographic data products, to develop and maintain the relevant IHO standards, specifications and publications, and to provide technical advice as appropriate.

Task 2.8.1	Conduct annual meetings of relevant HSSC WG dealing with digital	????	1 meeting per year, 1 PA per meeting
	data updating if WG required		(maybe no work items in the 2013-17 WP – HSSC3 to decide)
Task 2.8.2	Maintain and extend the following IHO standards, specifications and publications:	????	no significant IHO expense anticipated
	Digital data updating related elements of S-65 - <i>ENC Production Guidance</i>	0	
	S-52 Appendix 1 - Guidance on Updating the Electronic Navigational Chart ?????		
Task 2.8.3			

Element 2.9 Marine Spatial Data Infrastructures

Objective: To monitor developments related to the hydrographic component of Spatial Data Infrastructures, to develop and maintain the relevant IHO publications, and to provide technical advice as appropriate.

Task 2.9.1	Conduct annual meetings of relevant HSSC WG dealing with MSDI if WG required	????	1 meeting per year, 1 PA per meeting (maybe no work items in the 2013-17 WP – HSSC3 to decide)
Task 2.9.2	Maintain the following IHO standards, specifications and publications: C-17 - Spatial Data Infrastructures: "The Marine Dimension" - Guidance for Hydrographic Offices ?????	????	no significant IHO expense anticipated

Task 2.9.3

Element 2.10 Hydrographic Data Acquisition and Processing

Objective: To monitor developments related to hydrographic data acquisition and processing, to develop and maintain the relevant IHO publications, and to provide technical advice as appropriate.

Task 2.10.1 Conduct annual meetings of relevant HSSC WG dealing with hydrographic data acquisition and processing if WG required

(maybe no work items in the 2013-17 WP – HSSC3 to decide)

Task 2.10.2 Maintain and extend the following IHO standards, specifications

???? 1 meeting per year, 1 PA per meeting (maybe no work items in the 2013-17 WP – HSSC3 to decide)

 $S-44-{\it IHO\ Standards\ for\ Hydrographic\ Surveys}$

????

and publications:

Task 2.10.3

Element 2.11 Hydrographic Dictionary

Objective: To develop, maintain and extend S-32 - *Hydrographic Dictionary* in English, French and Spanish and to provide technical advice as appropriate.

Task 2.11.1 Maintain and extend the IHO Hydrographic Dictionary in English, 2013-17 no significant IHO expense anticipated French and Spanish.

Task 2.11.2 Develop the Spanish language Wiki version of S-32 with commercial contract support 20K

Task 2.11.3 ????

Element 2.12 Hydrographic Aspects of UNCLOS

Objective: To monitor developments related to the hydrographic aspects of the UN Convention on the Law of the Sea, to develop and maintain the relevant IHO publications, and to provide technical advice as appropriate.

Task 2.12.1	Organise and prepare annual business meetings	2013 - 17	1Dir + PA at each meeting in 2013, 2015, 2017
Task 2.12.2	Organise and prepare the biennial ABLOS Conferences.	2014 2016	self-funding
Task 2.12.3	Contribute to the revision of IHO publication C-51- <i>TALOS Manual</i> .		no significant IHO expense anticipated
Task 2.12.4	????		

PROGRAMME 3 - "INTER REGIONAL COORDINATION AND SUPPORT"

Concept: This Programme seeks to facilitate the global availability of hydrographic products and services through regional cooperation and capacity building.

Element 3.1 Coordination through Member States' Participation in RHCs

Objective: To facilitate IHO MS coordination, cooperation and collaboration to improve hydrographic services and the provision of those services through the structure of the RHCs.

Task 3.1.1	Arctic Region Hydrographic Commission	1 Dir + 1PA per meeting
Task 3.1.2	Baltic Sea Hydrographic Commission	1 Dir + 1PA per meeting
Task 3.1.4	East Asia Hydrographic Commission	1 Dir + 1PA per meeting
Task 3.1.4	Eastern Atlantic Hydrographic Commission	1 Dir + 1PA per meeting
Task 3.1.5	Meso American and Caribbean Hydrographic Commission	1 Dir + 1PA per meeting
Task 3.1.6	Mediterranean and Black Sea Hydrographic Commission	1 Dir + 1PA per meeting
Task 3.1.7	Nordic Hydrographic Commission	1 Dir + 1PA per meeting
Task 3.1.8	North Indian Ocean Hydrographic Commission	1 Dir + 1PA per meeting
Task 3.1.9	North Sea Hydrographic Commission	1 Dir + 1PA per meeting
Task 3.1.10	ROPME Sea Area Hydrographic Commission	1 Dir + 1PA per meeting
Task 3.1.11	Southern Africa and Islands Hydrographic Commission	1 Dir + 1PA per meeting
Task 3.1.12	South East Pacific Hydrographic Commission	1 Dir + 1PA per meeting

Task 3.1.13	South West Atlantic Hydrographic Commission	1 Dir + 1PA per meeting
Task 3.1.14	South West Pacific Hydrographic Commission	1 Dir + 1PA per meeting
Task 3.1.15	USA and Canada Hydrographic Commission	1 Dir + 1PA per meeting
Task 3.1.16	Hydrographic Commission on Antarctica	1 Dir + 1PA per meeting

Element 3.2 Increase Hydrographic Awareness among non Member States

Objective: To raise awareness of non-Member States of the importance of hydrography and its related benefits. Give advice to maritime States on how to comply with international obligations such as those in SOLAS V and to highlight the importance of coordinated efforts to ensure safety of navigation and protection of the marine environment. Stress the importance of becoming an IHO Member State and of the role of the RHCs.

Task 3.2.1	East Asia Hydrographic Commission	1 visit/regional tour every 2 years; at least 1 Dir or PA per visit
Task 3.2.2	Eastern Atlantic Hydrographic Commission	1 visit/regional tour every 2 years; at least 1 Dir or PA per visit
Task 3.2.3	Meso American and Caribbean Hydrographic Commission	1 visit/regional tour every 2 years; at least 1 Dir or PA per visit
Task 3.2.4	Mediterranean and Black Sea Hydrographic Commission	1 visit/regional tour every 2 years; at least 1 Dir or PA per visit
Task 3.2.5	North Indian Ocean Hydrographic Commission	1 visit/regional tour every 2 years; at least 1 Dir or PA per visit
Task 3.2.6	ROPME Sea Area Hydrographic Commission	1 visit/regional tour every 2 years; at least 1 Dir or PA per visit

Task 3.2.7	Southern Africa and Islands Hydrographic Commission	1 visit/regional tour every 2 years; at least 1 Dir or PA per visit
Task 3.2.8	South East Pacific Hydrographic Commission	1 visit/regional tour every 2 years; at least 1 Dir or PA per visit
Task 3.2.9	South West Atlantic Hydrographic Commission	1 visit/regional tour every 2 years; at least 1 Dir or PA per visit
Task 3.2.10	South West Pacific Hydrographic Commission	1 visit/regional tour every 2 years; at least 1 Dir or PA per visit

Element 3.3 Capacity Building Management

Objective: To manage, maintain and implement the IHO Capacity Building Programme to achieve effective and efficient coordination between all parties involved in its execution.

Task 3.3.1

Task 3.3.2

Task 3.3.3

Element 3.4 Capacity Building Assessment

Objective: To assess the hydrographic surveying, nautical charting and nautical information status of nations and regions where hydrography is developing. To provide guidance on how to develop local hydrographic capabilities. To identify regional requirements and to identify options for capacity building assistance and training from the IHO CB Fund and other sources.

C-55 enhancement and maintenance in here?

Task 3.4.1

Task 3.4.2

Task 3.4.3

Element 3.5 Capacity Building Provision

Objective: To deliver general support, training and education that addresses identified CB shortcomings; identify aid agencies and other sources of funds; liaise with Member States, other organizations and Funding Agencies for such provision and establish and participate in joint development projects.

Task 3.5.1

Task 3.5.2

Task 3.5.3

Element 3.6 Coordination of Global Surveying and Charting

Objective: To facilitate the achievement of appropriate worldwide nautical charting coverage and supporting publications to suit the needs of the mariner in support of safe and efficient navigation.

WEND stuff should go in here

assessing/monitoring global surveying capacity should be included here, as well

Task 3.6.1

Task 3.6.2

Task 3.6.3

Element 3.7 Maritime Safety Information

Objective: agencies.	To facilitate the efficient provision of MSI to mariners through coordination and the establishment of relevant standards between		
Task 3.7.1	Conduct annual meetings of the WWNWS Sub-Committee	2013-17	1 meeting 2014, 2016 1D +1 PA per meeting
			Reception for WWNWS 2013, 2015, 2017
Task 3.7.2	Conduct annual meetings of the WWNWS Document Review WG	2013-17	1 PA per meeting PA (Usually London, IMO)
Task 3.7.3	Maintain and extend the following IHO standards, specifications and publications:	2013-17	no significant IHO expense anticipated
	Relevant IHO Resolutions in M-3		
	S-53 - Joint IMO/IHO/WMO Manual on Maritime Safety Information)	
Task 2.74	Liaise with IMO and WMO on the delivery of MSI within the GMDSS	2013-17	no significant IHO expense anticipated

Element 3.8 Ocean Mapping Programmes

Objective: To contribute to global ocean mapping programmes through the IHO/IOC General Bathymetric Chart of the Oceans (GEBCO) Programme, the International Bathymetric Chart (IBC) Projects and other related international initiatives such as *Google ocean* and *Google earth*.

Task 3.8.1	Participate in annual meetings of relevant GEBCO bodies (including GC, TSCOM, SCUFN, SCRUM (desig) and Science	2013-17	3 meetings each year; 1 Dir or 1PA per
	(including GC, 13COM, 5COM, 5CKOM (desig) and 5cience		meeting
	Day)		
Task 3.8.2	Monitor and advise the IHO DCDB operators on the operation of	2013	1PA visit every 2 years
	the IHO DCDB	2015	
		2017	

Task 3.8.3	Promote and encourage States and authorities to contribute bathymetric data to the IHO DCDB	2013-17	no significant IHO expense anticipated
Task 3.8.4	Contribute to the maintenance and extension of the following IHO standards, specifications and publications:		contract support for B-8:10K for 3 years 2013-2015
	On-line function of B-4 - <i>Information Concerning Recent Bathymetric Data</i>	2013-17	
	B-6 - Standardization of Undersea Feature Names	Q	
	B-7 - GEBCO Guidelines	A >	
	B-8 - Gazetteer of Geographical Names of Undersea Features + web version (to be extended via contract support)	2013-15	
	B-9 - GEBCO Digital Atlas (including gridded datasets)	2013-17	
	B-10 - The History of GEBCO		
Task 3.8.5	Contribute to outreach and education about ocean mapping	2013-17	Possible expense here, awaiting GGC input
Task 3.8 6	Develop and maintain as-yet undefined ocean mapping products	2013-17	no significant IHO expense anticipated
Tusk 3.0 0	Develop and maintain as yet andermed occan mapping products	2013 17	no significant irro expense underputed