

1ST SESSION OF THE IHO ASSEMBLY

Monaco, 24-28 April 2017



GENERAL DOCUMENTS

«RED BOOK»

PROPOSALS

**Submitted to the
1st Session of the IHO Assembly**

PROPOSALS

PROPOSALS SUBMITTED FOR CONSIDERATION BY THE 1st SESSION OF THE IHO ASSEMBLY

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PRO 1 - DISCUSS A WAY FORWARD FOR THE PUBLICATION OF A 4th EDITION OF IHO PUBLICATION S-23 AND INCLUDE IT IN THE NEXT “3-YEAR WORK PROGRAMME”

Submitted by: Democratic People’s Republic of Korea

PROPOSAL:

The Assembly is requested to discuss a way forward for the publication of a 4th Edition of IHO Publication S-23 and include it in the next “3-Year Work Programme”.

EXPLANATORY NOTE:

-We consider that IHO Publication S-23 is a vital and fundamental publication for the activities of not only mariners and cartographers but also non-experts, which provides them with correct knowledge about the names and limits of the oceans and seas.

-As a result of efforts made by IHO Member States over several decades for the publication of 4th edition of S-23, IHO gained a wealth of practical experience.

-There were many twists and turns in the process for the publication of 4th edition of S-23 but we recognize the value for being of S-23 and its positive role to international community, as the authoritative publication of IHO.

-Considering that the publication of 4th edition of S-23 is raised as the task that should not be delayed anymore for IHO,

Reminding the decision of 5th EIHC in October 2014 which stated that “The Conference agreed that the matter could be discussed again at the next Ordinary Conference/Assembly in 2017 if a proposal on the matter is made by any Member States”,

Democratic People’s Republic of Korea proposes to discuss the above mentioned proposal at the 1st session of the IHO Assembly.

MEMBER STATES’ COMMENTS

BRUNEI DARUSSALAM:

The proposed publication of the 4th Edition, IHO S-23 is obviously to update the long overdue 3rd Edition published in 1953. It is an important document to all member states to refer to.

CROATIA:

Croatia is unwilling to comment on this proposal. Croatia has already declared that the problem of IHO pub. S-23 is a technical issue, and that dispute over the names of the sea between the parties is primarily a political issue, therefore it should be addressed in that order.

JAPAN:

S-23 is a valuable document for all stakeholders, including the IHO and its Member States. However, the proposals submitted in the past to revise S-23 have been overly-politicized. Therefore, the IHO has not reached any agreement and the S-23 issue is not included in the present work programme of the IHO. Against this background, Japan has strong concerns that the past overly-politicized discussions on S-23 might be repeated if the S-23 issue were to be included in the next IHO work programme. Recalling the consultative and technical nature of the IHO, Japan believes that the S-23 issue should not be included in the work programme.

PAPUA NEW GUINEA:

Papua New Guinea is of the view that the current S-23 (3rd edition) is almost 60 years old (introduced in 1953) and seriously needs revisiting to include all the changes that have occurred during this period. The revision of the S-23 will help update the publication for good use of its intended users including international shipping.

Papua New Guinea strongly believes that the upcoming 1st Session of the IHO Assembly shall provide a great opportunity for holding a constructive and positive discussion on the future of S-23. This Member State has provided similar requests to the IHO via its letter to the IHB President on 16 March 2012.

The National Maritime Safety Authority of the Government of Papua New Guinea thanks the International Hydrographic Organization for its kind consideration of the above matter and fully supports the proposal submitted by the Member State (Republic of Korea).

RUSSIAN FEDERATION:

Russia does not support discussions on S- 23 during the Assembly

COMMENT OF THE IHO SECRETARIAT

See also PRO 13.

PRO 2 - DEVELOPMENT OF IHO E-LEARNING CAPACITY

Submitted by: France

Reference: IHO Capacity Building Strategy

PROPOSAL:

The Assembly is invited to examine and approve the following provisions:

- a. That the IRCC defines a strategy regarding on-line training,**
- b. That the IRCC pilots the implementation of this strategy in the capacity building programme.**

EXPLANATORY NOTE:

An increasing number of bodies propose on-line training (e-learning) for hydrography (for example: IMarEST and the University of Plymouth, Skilltrade) without any involvement or screening from the IHO. The IHO has not defined any policy in this area although it could provide a very interesting leverage for the capacity building programme. The necessary initial investment to develop a high-quality course could be rather quickly balanced by the savings gained compared to face-to-face training which generates significant traveling costs and time. The relatively moderate cost of an on-line training course would allow an increase in the number of proposed courses, thus responding to the increasing demands of training in certain sectors. Finally, for a modest additional initial investment, on-line training could be delivered in several languages, facilitating the availability of the education to a wider audience, which has to be an important objective of the capacity building programme.

Following the example of the Intergovernmental Oceanographic Commission which launched its portal "Ocean Teacher" the IHO could lead a deliberate action to develop a portal "Hydrography Teacher".

MEMBER STATES' COMMENTS**BRUNEI DARUSSALAM:**

Generally online training and face to face training in hydrography have their pros and cons. But as the nature of Hydrography like other kind of professions, it requires hands-on work. Therefore this limits (E-Learning) and the delivery of training to meet the objectives.

CROATIA:

Croatia supports this proposal.

DENMARK:

Denmark supports this proposal. It is suggested the strategy also takes into consideration the possibilities to include Spanish and French in the on-line training, and how to prioritise the different topics that could be included in on-line training.

DEMOCRATIC PEOPLE’S REPUBLIC OF KOREA:

We consider that France raises an important issue in the IHO Capacity Building work.

It is considered that on-line training is an important task which benefits actually the IHO Capacity Building programme through a decrease in the number of one-to-one trainings, availability of education to more trainees and savings of travel costs.

We express our thanks to SHOM for the submission of such a useful proposal and fully support the consideration of this proposal at the first session of IHO Assembly.

FINLAND:

Finland is in favour.

FRANCE:

Proposal presented by France.

ITALY:

Italy supports the proposal. However, Italy wishes to note that practical, hands-on training is crucial for future hydrographers. This aspect must be carefully taken into account when developing e-learning solutions.

JAPAN:

Japan supports this proposal.

RUSSIAN FEDERATION:

No objections

SPAIN:

Spain supports this proposal.

UNITED KINGDOM:

The UK supports implementing an online learning strategy and suggests a blended approach should be championed as an alternative to single source e-learning materiel.

IBSC CHAIR COMMENTS

The Board notes PRO 2 and awaits the decision of the Assembly.

PRO 3 - REVISION OF THE RESOLUTION ON RESPONSE TO DISASTERS

Submitted by: Japan

Reference: IHO Resolution 1/2005 as amended - *IHO Response to Marine Disasters, and Contribution to Prevention and Alert Systems (former K4.5)*

PROPOSAL:

It is proposed that IHO Resolution 1/2005, as amended – “IHO Response to Marine Disasters, and Contribution to Prevention and Alert Systems” be amended as attached.

EXPLANATORY NOTE:

1. Japan proposed the amendment of IHO resolution 1/2005 “IHO Responses to Disasters” at the XVIIIth International Hydrographic Conference held in April 2012 to add key elements to be taken by Member States for the immediate re-establishment of basic maritime transportation routes based on experiences of the Great East Japan Earthquake that occurred in March 2011, and the Conference agreed to amend the Resolution following the proposal.

2. After 2012, Japan continued to conduct re-surveys at each damaged port until September 2015 and plans to revise the nautical charts by the first half of 2017. In this process, Japan revised the chart datum at some affected ports because of the change of the ground level by post-seismic crustal deformation, and developed a rapid method to determine the chart datum utilizing GNSS techniques. Japan also established a system to provide graphical information for Notices to Mariners and Navigational Warnings based on experiences in the huge earthquake. In addition, between 2012 and 2015, Japan hosted the following meetings related to response to disasters.

- a) In August 2012: International Seminar on the Importance of Hydrographic Service against the Natural Disaster
- b) In November 2015: International Workshop on Tsunami Inundation Mapping (P-17 of the IHO Capacity Building Work Programme in 2015)

3. Furthermore, in March 2015, the UN 3rd World Conference on Disaster Risk Reduction (WCDDR) was held in Sendai, Japan, where the IHO representative delivered a statement, highlighting the important roles of hydrography in disaster risk reduction. The Conference adopted “the Sendai Framework for Disaster Risk Reduction 2015-2030” for disaster risk reduction. In the framework, key activities to be taken by States, regional and international organizations and other relevant stakeholder are described under the following four priority areas:

- a) Understanding disaster risk;
- b) Strengthening disaster risk governance to manage disaster risk;
- c) Investing in disaster risk reduction for resilience;
- d) Enhancing disaster preparedness for effective response, and “Building Back Better” in recovery, rehabilitation and reconstruction.

The framework also invites international organizations to consider and implement the key activities for disaster risk reduction as follows:

Sendai Framework for Disaster Risk Reduction 2015-2030

IV. Priorities for action:

"21. In their approach to disaster risk reduction, States, regional and international organizations and other relevant stakeholders should take into consideration the key activities listed under each of these four priorities and should implement them, as appropriate, taking into consideration respective capacities and capabilities, in line with national laws and regulations. "

4. Given the circumstances above, Japan proposes that IHO Resolution 1/2005, as amended – “IHO Response to Marine Disasters, and Contribution to Prevention and Alert Systems” be further amended in order to improve the relevant measures for disaster risk reduction.

The main purpose of the proposed amendment is to add descriptions to “1. Introduction” and “2. Procedures and Guidelines” in the Resolution with regard to the following items:

- a) To encourage cooperation in the development and implementation of restoration plans for affected coastal areas and preventive strategies for disaster risk reduction;
- b) To plan and organize capacity building activities to enhance disaster management;
- c) To consider and prepare support plans in advance for countries likely to be affected by future disasters;
- d) To take in to consideration the long term impacts on ground level and depths of post-seismic crustal deformation caused by earthquakes;
- e) To participate in monitoring disaster risk and research and development activities;
- f) To promote the collection, analysis, management and use of relevant data for disaster risk reduction.

Attachment to PRO 3

IHO RESPONSE TO MARINE DISASTERS, AND CONTRIBUTION TO PREVENTION AND ALERT SYSTEMS	1/2005 as amended	29/2015	K4.5
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Note: The proposed amendments are highlighted in red.

1 Introduction

The 2004 and 2011 Indian Ocean and Japan tsunami not only severely affected local communities through the widespread loss of life and the extensive destruction of most facilities, but also severely affected safety of navigation through the destruction of port facilities and the creation of new navigational obstacles. A huge number of refugees were created and immediately suffered from shortages of food, water and fuel. In such circumstances support by sea transport was vital and depended on the immediate restoration of appropriate hydrographic and charting services.

Furthermore, various data and information obtained from hydrographic and charting activities are indispensable for the development of restoration plans for damaged coastal areas and for strategies for disaster risk reduction.

In order to reduce disaster risk, Hydrographic Offices should therefore plan to respond immediately after the occurrence of such severe disasters and participate in and cooperate in the development and implementation of the restoration plans for the damaged coastal areas and the strategies for disaster risk reduction within their area of responsibility, which may vary from Member State to Member State.

The International Hydrographic Organization, the Member States, and the Regional Hydrographic Commissions should also cooperate and coordinate their activities in relation to mitigation measures for significant disasters and for the improvement of the capacity of the Member States to cope with disasters, in cooperation with other international organizations as appropriate.

The International Hydrographic Organization, its Member States and the Regional Hydrographic Commissions should ensure that appropriate procedures and guidelines are in place so as to enable an immediate and appropriate response to any future disaster affecting coastal areas of the world.

These procedures should provide guidance to be followed at the national, regional and international levels within the over-arching structure of the IHO.

Such procedures and guidelines should aim to:

- ensure the immediate assessment of damage and its effect on the safety of navigation of national and international shipping,
- immediately inform mariners and other interested parties of relevant damage and any dangers, particularly with respect to navigational hazards,
- re-establish the basic key maritime transportation routes, and
- ensure that charts and other hydrographic information of affected areas are updated as soon as possible.

The procedures and guidelines should also identify the type of actions required and the likely support from Hydrographic Offices needed to recover from the damage as well as preventive measures, such as the improvement of capacity and capability for disaster management, development of disaster risk reduction strategies, and the monitoring and research and development activities for disaster risk reduction.

Appropriate global or regional actions can be co-ordinated through the IHB (“IHB” to be replaced with “IHO Secretariat” when the revised Convention enters into force), in liaison with the relevant Regional Hydrographic Commissions, IHO Member States, other Coastal States and relevant International Organizations, as appropriate to the circumstances, based on the general framework described in section 2 below.

It is also very important for Coastal States to collect relevant coastal and bathymetric data in their areas of responsibility and to make this available to the appropriate organizations to support the establishment and improvement of tsunami early warning systems, protection of coastal areas and relevant simulation studies. In particular, Coastal States should cooperate and support the IOC Tsunami Warning Programme (www.ioc-tsunami.org) in setting up sea-level and tide gauges networks, procedures and systems for the exchange and transmission of near real time sea-level data. One to five minute transmission of sea-level data, properly sampled (~1 min rather than 15 min or 1 h) is recommended for specific gauges likely to provide early warnings of tsunamis and storm surges. Any necessary regional cooperation for the collection of data can be coordinated through the Regional Hydrographic Commission with other States in the Region and regional bodies of other International Organizations as appropriate, such as the IOC.

2 Procedures and Guidelines

a) By Coastal States:

All Coastal States should have contingency plans developed in advance in order to be prepared in case a disaster occurs. After the occurrence of a disaster affecting coastal areas under its jurisdiction, each State should promulgate Maritime Safety Information and conduct a preliminary survey to confirm the principal transportation routes, according to the extent of the damage.

In response to the reconstruction of ports, each State should undertake hydrographic surveys so as to keep the charts updated. These actions should be coordinated with neighbouring States, Regional Hydrographic Commissions and others as appropriate.

Member States are requested to consider and prepare support plans in advance that can be implemented in the event of a significant disaster occurring in other countries.

It is important that each Coastal State provides both a senior point of contact and a working point of contact for communication and coordination purposes; this could include the Director of the Hydrographic Service or Maritime Safety Agency or other appropriate persons with the appropriate authority and who are familiar with maritime procedures.

Contingency plans should contain the following key elements:

- i) Immediately upon the occurrence of a disaster, including tsunami, promulgate appropriate navigational warnings and necessary information and advice to shipping through existing channels (e.g. NAVTEX, SafetyNET, etc...) using appropriate ways for the public to understand easily, such as graphical information on maps. In addition and following further monitoring and assessment, promulgate updated warnings, information and advice in accordance with the development of the event.
- ii) Co-operate with the NAVAREA Co-ordinator and other national co-ordinators so that warnings, information and advice can be made available to mariners beyond the area of national jurisdiction as soon as is practicable.
- iii) Assess the extent of damage to the coastal area particularly to ports, harbours, straits, approaches, and other restricted areas.
- iv) Assess, in co-operation with other national agencies, for example, lighthouse and port authorities, the extent of damage to navigational aids.
- v) Prioritize actions and allocate resources in order to identify requirements and undertake preliminary re-surveys starting with the most critical areas for navigation, aiming at ensuring the passage of support and supplies through maritime channels and ports, and the marking of new dangers where necessary.
- vi) Assess the specific effects on shipping of the existence of obstacles and any changes to the seafloor that can hinder navigation, taking full account of the effects of drifting obstacles which may also hinder preliminary survey results.

vii) Inform the Chair of the Regional Hydrographic Commission and the IHB (“IHB” to be replaced with “IHO Secretariat” when the revised Convention enters into force) of the situation, providing details of the damage, actions taken and indicating what support, if any, is needed. Furthermore, prepare procedures, equipment and materials to support the affected country.

viii) Take the following action to assess and define new hydrographic or cartographic requirements, including:

1. Conducting hydrographic surveys in harbours and approaches as soon as practicable wherever the depth is likely to have changed due to geomorphic change, obstacles, or accumulation of sediment. Surveys should be progressed incrementally in support of progress in reconstruction of port facilities.

2. Checking and confirming relevant benchmarks. Re-defining chart datum, if necessary.

3. Providing nautical information as soon as practicable. Providing chart correction information or new editions of charts incrementally according to priorities and available resources. Indicating newly surveyed areas in chart correction information or on new editions of charts in accordance with the relevant IHO chart specifications in order to highlight areas of more reliable information in areas where significant changes of depth have taken place.

4. In the case of an earthquake, the ground level may continue to change for many years due to post-seismic crustal deformation, which may accumulate and affect charted depths significantly. Therefore the change of water depths should be monitored regularly, even after the revision of the charts, especially when this kind of change is anticipated.

ix) Provide follow-up reports to the Chair of the Regional Hydrographic Commission and the IHB (“IHB” to be replaced with “IHO Secretariat” when the revised Convention enters into force).

In anticipation of potential disasters, Coastal States are encouraged to take the following actions:

- i) To plan and organize capacity building activities to enhance disaster management in cooperation with other Member States and organizations as appropriate,
- ii) To participate in and cooperate with the development and implementation of a disaster risk reduction strategy in each coastal State incorporating the existing and available hydrographic and charting capabilities,
- iii) To participate in monitoring disaster risk, and research and development activities thereby incorporating the skills and knowledge of hydrographic offices, and
- iv) To promote the collection, analysis, management and use of relevant data for disaster risk reduction by using, as applicable, geospatial information technology.

b) By Regional Hydrographic Commissions:

The Chair of the Regional Hydrographic Commission will be responsible for co-ordinating the actions needed within the Region. In order to achieve this, the RHC should develop a ‘disaster’ action plan, aimed at supporting States in the area to assess the hydrographic damage, provide support and co-ordinate actions and efforts including capacity building, monitoring disaster risks, and research and development to enhance disaster management. These plans will be focused on the following:

- i) Communicating, by the quickest means available, with the focal points of the States in the Region, in order to make an initial evaluation of the extent of the damage.
- ii) Deciding whether a Regional technical task team needs to visit States in the area to support the evaluation of the damage and support needed.

- iii) Deciding, based on the information collected, whether an Extraordinary Meeting of the RHC is needed, in order to discuss in detail the problems, evaluate the damage and respond to requests for support.
- iv) Deciding if the Chair needs to take a co-ordinating role in assessing damage, providing support and broadcasting information to mariners.
- v) Informing the IHB (“IHB” to be replaced with “IHO Secretariat” when the revised Convention enters into force) on the situation, the actions taken and the need, if any, for external support.
- vi) Monitoring the progress of the actions agreed in the area, keeping Member States in the Region and IHB (“IHB” to be replaced with “IHO Secretariat” when the revised Convention enters into force) informed accordingly.
- viii) Including this issue as a permanent Agenda item on RHC meetings in order to monitor the readiness of the Commission to respond to disasters and conducting regular table-top exercises to evaluate the procedures.

c) By the IHB (“IHB” to be replaced with “IHO Secretariat” when the revised Convention enters into force):

The IHB (“IHB” to be replaced with “IHO Secretariat” when the revised Convention enters into force) will co-ordinate the actions required of Member States and Regional Hydrographic Commissions in order to assess damage and will co-operate with other International Organizations as appropriate to co-ordinate any external support required.

The IHB (“IHB” to be replaced with “IHO Secretariat” when the revised Convention enters into force) will coordinate with other International Organizations as appropriate to provide capacity building, monitoring and research and development to enhance disaster management.

The IHB (“IHB” to be replaced with “IHO Secretariat” when the revised Convention enters into force) will undertake the following tasks:

- i) Communicate with the Chairs of the Regional Hydrographic Commissions and, where necessary, directly with Member States in the region(s) affected, in order to collect information relating to the scale of the damage, actions taken, the support needed and the desirability of a regional meeting.
- ii) Participate as appropriate in meetings organized by the RHC or Member States, to determine problems and the actions required to remedy the situation
- iii) Co-operate with other International Organizations, informing them of matters affecting the safety of navigation, the needs of Member States, and actions taken and seeking where appropriate, support from these Organizations for the repair of the damage.
- iv) Invite other International Organizations to participate in Regional Meetings, in order to contribute to the discussions and to the required actions.
- v) Monitor developments and inform Member States on all issues associated with the damage, actions taken and support needed.
- vi) Investigate the willingness of Member States to provide support and co-ordinate the appropriate actions with the affected States in close co-operation with the Chair of the RHC.
- vii) Participate in discussions at RHC meetings to monitor requirements, develop responses to possible disasters and test the procedures and readiness to respond by tabletop exercises.

MEMBER STATES' COMMENTS

AUSTRALIA

1. Australia welcomes the proposal by Japan to review Resolution 1/2005, as amended, *IHO Response to Marine Disasters, and Contribution to Prevention and Alert Systems*. The comments provided by Australia are also made as Chair of the South West Pacific Hydrographic Commission (SWPHC), having discussed Japan's proposal during the SWPHC meeting in Noumea in November this year. The comments provided are also made in the context of two recent SWPHC responses under the current Resolution to natural disasters caused by Severe Tropical Cyclones Pam (2015) and Winston (2016), which struck Vanuatu and Fiji, respectively.
2. Responses provided in the SWPHC to recent disasters, albeit similar disasters have varied slightly due to the nature of the impact on the affected countries, the nature of the support required, and the nature of the support requested. In the immediate 'response phase' to a disaster, the main matter to consider is 'where can the IHO Secretariat and RHC have the most positive impact and be of most assistance'. Similarly, in the longer term 'recovery phase' the RHC and IHO Secretariat should be looking at where resource allocation and support can best be delivered to address those matters that genuinely fall within the remit of the IHO and RHC. The reality of most disaster responses is that they do not generally follow a prescriptive list.
3. The nature of any response is also influenced by the capabilities of the region and the affected countries, and by the capabilities that may or may not be at the disposal of RHC members (i.e. specifically available to the Hydrographic Offices or other relevant hydrographic authorities). In this context, the prescriptive and directive language within the Resolution does not reflect the ability (i.e. the inability) of most RHCs, RHC Chairs, or the IHO Secretariat to undertake, or in some case even influence, the many activities detailed within the Resolution (both current and proposed).
4. Therefore, a more generic description of the IHO's commitment to disaster response would be more appropriate. This also then allows for a positive reflection on disaster response activities, as each would have been undertaken on their merits and within the available resources, rather than a list of activities that were not achieved due to a range of circumstances that were outside of the control of the IHO Secretariat and the RHC. In most cases many of the listed activities are outside of the role of the IHO Secretariat and the RHC.
5. In view of these comments and also acknowledging the genuine need to ensure the IHO Secretariat and the RHC can have the most positive impact and be of most assistance, Australia suggests, and considers appropriate, for the IRCC to be tasked with reviewing Resolution 1/2005, with appropriate input from RHCs and the IHO Secretariat, with a view to redrafting Resolution 1/2005.

CROATIA:

Croatia supports this proposal.

FINLAND:

Finland is in favour.

FRANCE:

The Japanese experience is very valuable, and the IHO Member States should give it their utmost consideration.

Nevertheless, mitigation and restoration measures may cover wide-ranging activities, some of which are beyond the scope of the IHO. More specifics, or examples in terms of what should be considered would be helpful. In that respect we could learn from recent experiences in the Pacific (Pam, Winston) and in the Greater Antilles (Matthew), to investigate what may have been missing. To this end, the preparation of support plans, including activation procedures, is a good idea (the commitment of resources implies a decision making process which goes beyond the scope of Regional Hydrographic Commissions – eg : Matthew in Haiti, where the lack of an official request for support from Haiti made it impossible for certain Member States to provide assistance). Finally, the main difficulty concerning the follow-up of the changes to the vertical datum after an earthquake is a real new issue (in hydrography), and it might be a subject matter for a HSSC WG (TWCWG?).

ITALY:

Italy thoroughly supports Japan's proposal.

NETHERLANDS:

The Netherlands, also in the capacity as outgoing Chair of the MACHC, thanks Japan for its proposed revision to the IHO Resolution 1/2005 on Response to Disasters.

The Netherlands note that the Resolution has been amended on several occasions and has become increasingly prescriptive by placing obligations and directions on the IHO Secretariat, the Chairs of RHC's and on HO's, for instance with contingency/action plans which suggest executive responsibilities. Moreover, the described responsibilities of coastal states, RHC's and the IHO Secretariat seem overlapping.

The RHC's as the MACHC, have been established in line with the (overarching) IHO resolution 2/1997 on the establishment of RHC's. The MACHC is advisory, scientific and technological in character with aims to promote hydrographic surveying, marine cartography and nautical information. In that sense it has no executive remit. The Chair of a RHC as the MACHC is not envisioned to have a standing 'Command and Control Capability' for disaster response.

IHO resolutions 1/2005 and 2/1997 are therefore not fully aligned. In a revision of IHO resolution 1/2005 this needs to be taken into account. Depending upon the circumstances of the disaster, the regions involved, and the resources of individual HO's and Chairs, many of the directives in IHO resolution 1/2005 cannot be achieved because of lack of resources, difficulties in communication, political or diplomatic protocols

NETHERLANDS (contd):

A better lesson identified during the passage of Hurricane Matthew last October, is that the ambition level of what can be expected of a RHC should be realistic. The role of the Chair of the MACHC was essentially restricted to that of a broker of hydrographic demand (from the affected countries) and supply (by countries offering assets). For immediate disaster response this focused on supporting other relief activities as an enabler. During the subsequent recovery phase the main focus was updating charts and hydrographic information.

Another important lesson identified is the need for functioning channels. Effective hydrographic support predicated on diplomatic clearance to actually deploy the offered hydrographic assets in theatre. It was the responsibility of affected states to institute procedures to progress 'hydrographic' requests timely through their Nations Diplomatic channels. The Chair of the MACHC had no means to absorb these national responsibilities. The IHO resolution on Disaster Response should therefore also be outward looking and be placed in the proper diplomatic context.

Based on this very recent experience in relation to natural disasters in the MACHC region, and as supported by the 17th MACHC meeting in Belém, Brazil (14-17 December 2016), the Netherlands take the view that the Resolution does not continue to be overly prescriptive or place obligations upon the Chairs of all RHC's or the IHO Secretariat, or HO's, that they cannot fulfil for various reasons. Also, the Resolution needs to take into account other (overarching) resolutions and existing standing procedures to avoid friction and/or duplication.

The Netherlands therefore suggests that it would be appropriate to task the IRCC to take note of the input provided by Japan and this letter, and to seek the further opinion of the Chairs of the RHC's and the IHO Secretariat, with a view to completely redrafting the Resolution 1/2005 instead of continuing the current incremental approach. This work should assess the original needs and aims of the guidance with a view to creating a generic set of guidelines and best practices for consideration by RHC's when faced with a disaster in their region.

NEW ZEALAND:

New Zealand supports the amendments proposed by Japan.

RUSSIAN FEDERATION:

No objections.

SPAIN:

Spain supports this proposal.

UNITED KINGDOM:

UK welcomes the proposal to review the resolution on IHO Response to Disasters but is concerned that the document is now rather proscriptive and is not necessarily suited to meeting the differing demands of our individual Hydrographic Commissions each of which will have a unique set of issues to tackle with a varying capability and resource available to them to support such disaster response activity. The proposal contains useful recommendations and guidance but noting that this is a proposed further amend to the original documentation it may be better to task a subordinate body such as IRCC to review the original needs and aims of the guidance with a view to creating a truly generic set of guidelines and best practice recommendations that should be considered by Regional Commissions when faced with a disaster in their region.

PRO 4: REWRITE OF THE IHO STRATEGIC PLAN

Submitted by: United Kingdom

- References:
- A. IHO CL 17/2016 dated 31 March - *Call for Submissions to update the IHO Strategic Plan*
 - B. IHO CL 31/2016 dated 11 July - *Responses to the call for submissions to update the IHO Strategic Plan*

PROPOSAL:

It is proposed to rewrite the IHO Strategic Plan.

EXPLANATORY NOTE:

In accordance with Reference A, the UK provided comments on the review of the 2009 IHO Strategic Plan for the Directing Committee to consider. The UK considered that a complete re-write of the Strategic Plan to reflect the many changes that have taken place over the last 7 years and the coming in to force of the new IHO constitution would be the most appropriate way ahead.

Reference B, noted that five of the six contributions received from Member States could be accommodated through a modest revision of the current edition of the Strategic Plan and/or considered when preparing the draft IHO Work Programme 2018-2020.

Since the implementation of the IHO Strategic Plan in 2009, we know that the hydrographic domain has changed dramatically, particularly with the updated International Convention for the Safety Of Life At Sea (SOLAS) to allow for the carriage of electronic navigational charts. The pivotal role of the IHO in this area over the last seven years or so has been a key tenet to the successful uptake of ECDIS and ENC's. Similarly, the focus on hydrographic Capacity Building has contributed towards the drive for quality hydrographic data, and is, in our view, something which should be continued and invested in further.

In light of the above, the UK considers that a modest revision of the current edition of the Strategic Plan is not sufficient and continues to recommend a full rewrite of the Strategic Plan, to ensure it not only takes in account of the changes which have occurred since it was written, but also reflects and sets new priorities to enable progress against limited resource levels.

The work plan should clearly identify IHO strategic priorities and be flexible to deal with emerging requirements over the duration of the plan. With this in mind, and if a rewrite of the Strategic Plan is endorsed, we would like to offer our support to taking forward this work.

MEMBER STATES' COMMENTS**BRUNEI DARUSSALAM:**

A comprehensive revision of IHO Strategic Plan is thought to be essential especially due to the anticipation of fully utilizing ENC in the coming years. This certainly will add in some factors and information which contribute on safety of navigation as an example. Moreover as a new member such as Brunei Darussalam, a strategic plan in enhancing the capacity building will definitely give a positive impact in many aspects. The areas from conducting the survey to the production of charts and training for trainees in hydrography and cartography such as the recent training conducted by Korea Hydrographic and Oceanographic Agency (KHOA), are all vital and required.

CHILE:

We would like to express our support to the Proposal 4 submitted by the United Kingdom and we thank the UK for offering the work associated to rewrite the IHO Strategic Plan.

CROATIA:

Croatia supports this proposal.

DENMARK:

Denmark supports the proposal from UKHO and the need to rewrite the IHO Strategic Plan.

DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA:

We support UK proposal.

It takes into account that the current strategic plan might not fully represent the views of newly-joined IHO member states after 2009 when it was developed.

FRANCE:

Before embarking on rewriting the Strategic Plan, and devoting scarce resources to this exercise, the expected benefits must be identified.

A rewrite would be justified if new strategic priorities were identified beforehand and were at odds with the current directions, therefore making the current plan obsolete.

But the directions set out in the IHO Strategic Plan are still highly relevant and include in particular the objectives of improved knowledge (drive for global coverage, development of coastal States' capabilities), adequate hydrographic services and efficiency (for example through coordination, management of overlaps).

The proposal suggests that the directions be better prioritised and linked to the Work Programme. However, the relationship between the tasks of the Work Programme and the strategic directions is already addressed as all tasks refer to one or more strategic directions. The approval of the Work Programme, in principle, allows year on year prioritization of the efforts devoted to the various strategic directions. It is likely that the Council will have an important role to play in the future with regards to prioritization.

In conclusion, France could contribute to the consideration of potential new strategic directions but France believes that an overhaul of the document should be initiated only if new directions are identified. Improving the form or the structure of the existing document cannot alone justify investing the significant time that would be required to rewrite the Plan

ITALY:

Italy agrees with the principle of the proposal. The strategic guidelines must be outlined during the Assembly to be further developed for approval by Member States.

NEW ZEALAND:

New Zealand supports this proposal.

RUSSIAN FEDERATION:

No objections.

UNITED KINGDOM:

The United Kingdom submitted this proposal therefore supports.

COMMENT OF THE IHO SECRETARIAT

As indicated in its report on the execution of Programme 1 (see document A.1/WP1/01), the Secretariat invites the Assembly to consider the proposed revised IHO Strategic Plan presented in document A.1/WP1/03.

PRO 5 - DEVELOPMENT OF AN IHO SATELLITE-DERIVED BATHYMETRY ASSESSMENT AND CHARTING PROGRAMME FOR AS YET UNCHARTED OR POORLY CHARTED AREAS

Submitted by: Canada, France, United States of America

- References:
- A. Decision n°17 of the XVIIIth International Hydrographic Conference: “... to progress whatever actions are required to improve the collection, quality and availability of hydrographic data worldwide, monitor and rectify possible deficiencies and shortcomings...”
 - B. Proposal 6 to the 5th Extraordinary International Hydrographic Conference “Development of an IHO satellite-derived bathymetry and charting programme for remote areas”
 - C. GEBCO CookBook
(http://www.star.nesdis.noaa.gov/sod/lisa/GEBCO_Cookbook/documents/CookBook_20160727.pdf)

PROPOSAL:

The Assembly is requested to consider and approve the following:

That the Regional Hydrographic Commissions via the IRCC be requested to include as part of their work programmes an assessment of as yet uncharted or poorly charted areas in their respective regions using satellite derived bathymetry and risk assessment methodologies to develop survey priorities for donor funding consideration.

EXPLANATORY NOTE:

Satellite-derived bathymetry (SDB) has been an agenda item of several Regional Hydrographic Commissions (RHCs), CBSC and IRCC in recent years. This issue is a standing agenda item for IRCC meetings and for the conferences of several RHCs. This proposal seeks to encourage the RHCs to use SDB to prioritize regional survey requirements (see Reference A) that could then be reported to the WEND WG for tracking and the compilation of a global assessment of gaps. These results could then be considered by the IRCC and IHO in support of funding requests to donor organizations (UN Development Programme for example, with the results made available to the UN-GGIM under open licenses ; also the IHO Capacity Building Programme) to address the identified gaps.

Thanks to new technological developments and available sources of satellite information, SDB offers the possibility to assess in a reasonable time the quality of bathymetry over large areas that are poorly charted or charted a long time ago. Used in conjunction with risk assessment methodologies (identifying where greatest shipping traffic is located within poorly charted areas, for example), SDB would be of considerable value in giving coastal States a clearer view of the status of hydrography in the waters under their responsibility, and for establishing a focused hydrographic programme of obtaining certified quality data, based on priority requirements and an objective rationale derived from SDB reconnaissance information and a risk assessment.

From a capacity building perspective, this approach could be very relevant in countries where requirements for land surveying and environment monitoring have led to the development of remote sensing processing capabilities. Indeed, SDB should not be seen as an “all-in-one” solution, impeding the development of classic hydrographic surveying capabilities, even at the limited level required at least for critical areas and / or checking purposes. Nevertheless, the perspective of being able to collect, on a wide scale, a complete set of information usable for establishing a focused strategy for the modernization of nautical charts driven by risk assessment, in a reasonable amount of time and for a foreseeable cost, can be a strong driver for raising funding for regional chart improvement programmes.

At the EIHC-5 in 2014, a proposal on a scoping study on an IHO SDB programme (see Reference B) was discussed. Though the proposal was supported by several Member States, with fruitful comments on technical, practical and legal aspects, the idea of an IHO programme was considered too ambitious a goal at the time, and the Conference agreed not to initiate a coordinated action on satellite-derived bathymetry.

The SDB has been assessed by several hydrographic services and commercial organizations in order to meet their own responsibilities or objectives. However, an assessment of the contribution of this technology to global safety of navigation is yet to be done. This includes those areas not under the direct responsibility of existing IHO Member States, but that may still be important for the risk assessment of navigation of ships under their flag, and could also be of particular interest to future IHO Member States.

MEMBER STATES' COMMENTS

BRUNEI DARUSSALAM:

Satellite-Derived Bathymetry (SDB) would be a good quality assurer to assess a certain area especially with regards to in the explanation statement in this proposal. Where the bathymetry of a large area as an example could be assessed by using SDB. Its advantage and also the strength of using satellite data could adequately check the area concerned and verify its bathymetry to the standard set out by IHO.

This SDB could be the economical and reliable approach to resolve problems to cover a large area and to cope with issues concerning poorly charted area.

CROATIA:

Croatia supports this proposal.

DENMARK:

Denmark supports the proposal.

ITALY:

Italy supports the proposal.

JAPAN:

Japan supports this proposal.

FRANCE:

Proposal presented by Canada, France and USA.

NEW ZEALAND:

New Zealand (NZ) fully supports this proposal as the SWPHC NZ Pacific Regional Navigational Initiative (PRNI) work programme includes risk assessment and the use of SDB as a reconnaissance tool to assess the quality of bathymetry over large areas that are poorly charted.

NZ would like to know how this work programme would be funded.

NZ suggests that the prioritised regional survey requirements be reported to CBSC for tracking rather than the WEND WG as the CBSC is better placed to feed into IRCC and IHO funding requests to donor organisations.

RUSSIAN FEDERATION:

No objections.

UNITED KINGDOM:

The United Kingdom broadly supports using Satellite Derived Bathymetry (SDB) as a planning tool to aid the assessment of poorly charted areas with a view to directing more focused future hydrographic survey campaigns. The availability of open source 10m resolution Sentinel-2 satellite imagery is particularly encouraging in this respect. However, the importance of distinguishing this kind of planning/reconnaissance use of SDB as distinct from SDB survey for the direct purposes of compiling navigation charts should be emphasised. Whilst the need to verify the accuracy of SDB for planning purposes need not be as stringent as for its inclusion on SOLAS products, the IHO community would benefit from the establishment of an agreed best practice for this particular application.

PRO 6 - PROPOSED AMENDMENT TO THE IHO RESOLUTION 2/2007 FOR IMPROVING THE VALIDATION PROCEDURE OF MAKING CHANGES TO SPECIFICATIONS BASED ON S-100

Submitted by: Republic of Korea

- References:
- A. IHO Resolution 2/2007 as amended - *Principles and Procedures for making changes to IHO Technical Standards and Specifications*
 - B. IHO Publication S-100 - *IHO Universal Hydrographic Data Model*

PROPOSAL:

Recognizing the need to improve the test and validation procedure of making changes to specifications based on S-100, it is proposed to add the following to the IHO Resolution 2/2007:

1. **Establish and run a test bed to test and validate the changes to S-100 based specifications.**
2. **Share the results of running the test bed on the IHO website.**
3. **A body for running the test bed is required to set detailed specifications for the following, which will subsequently need to be approved by the IHO technical committee.**
 - a. **Composition and tasks of the organization for running the test bed**
 - b. **Items and criteria of test phases**
 - c. **Guidelines on inter-operability between specifications**
 - d. **Any other specifications set forth by other technical committees**

EXPLANATORY NOTE:

1. The IHO Resolution 2/2007 is a mandatory resolution to refer to when making changes to IHO's specifications and it outlines the principles and procedures for doing so.
2. It also specifies principles and procedures for preventing problems which may occur when making changes to IHO's specifications. To name a few problems, they can be incompatibility between systems, high updating costs, market monopoly, dissatisfied users or increased risks to safety of navigation.
3. Nevertheless, since S-100 based product specifications enable not only traditional single information such as ENCs but also integrated services including tides, bathymetry, and marine meteorology on a single screen, it is anticipated that pre- assessment of impacts from making changes to amendments will be sophisticated. To supplement that, it is required to improve the existing test and validation procedure of making changes to specifications. Therefore it is necessary to add relevant articles to the IHO Resolution 2/2007.
4. Furthermore, it is difficult for Member States to determine the appropriateness of the changes because technical aspects such as data modelling of S-100 based specifications have been reinforced, compared to those from the past.
5. Subsequently, it is required to establish a system which shares the procedure and result of running the test bed on the IHO website so that it will help stakeholders understand changes to specifications.
6. The body which will be tasked to run the test bed is required to obtain prior approval by the IHO on its composition, tasks, roles, etc.

MEMBER STATES' COMMENTS**CROATIA:**

Croatia supports this proposal.

DENMARK:

Denmark supports the proposal.

FRANCE:

France supports this proposal. Resolution 2/2007 has often been criticized for being cumbersome by certain IHO Working Groups (TSMAD, NCWG, etc.). S-100 products and their interoperability are taking us into a new era where a new mode of operation is required.

France recommends that the body responsible for the proposed test bed, be under the supervision of the S-100 Working Group (through expanding the terms of reference of the S-100 WG or establishing a Sub-Working Group).

ITALY:

Italy supports the proposal.

NEW ZEALAND:

Proposed Amendment to the IHO Resolution 2/2007 for Improving the Validation Procedure of Making Changes to Specifications Based on S-100

New Zealand supports this proposal.

RUSSIAN FEDERATION:

No objections.

SPAIN:

Spain supports this proposal.

UNITED KINGDOM:

The United Kingdom supports the need for a mechanism to test and validate changes to S-100 based product specifications and the idea that results should be posted on the IHO website. The IHO Resolution 2/2007 is not the appropriate mechanism and we propose that a new S-100 testing and approval standard is developed. This would cover the initial testing of a new product specification.

PRO 7 - NATIONAL HYDROGRAPHIC OFFICE IMPLICATIONS REGARDING THE UNITED NATIONS COMMITTEE OF EXPERTS ON GLOBAL GEOSPATIAL INFORMATION MANAGEMENT (UN-GGIM) SHARED GUIDING PRINCIPLES FOR GEOSPATIAL INFORMATION MANAGEMENT

Submitted by: United States of America

Supported by: Australia, Brazil, Canada, Croatia, Denmark, Netherlands, New Zealand, Norway

- References:
- A. UN-GGIM Working Group on Development of a Statement of Shared Principles for the Management of Geospatial Information, adopted Statement
URL:
<http://ggim.un.org/docs/meetings/GGIM5/statement%20of%20shared%20guiding%20principles%20flyer.pdf>
 - B. Report presented to the UN-GGIM, Fifth session, New York, 5-7 August 2015.
<http://ggim.un.org/docs/meetings/GGIM5/E-C20-2015-10%20Statement%20of%20Shared%20Principles%20Report.pdf>
 - C. *A Comparative Study of the Development of Marine Spatial Data Infrastructure (MSDI) by IHO Member Nations*, January 2016, presented to the IHO MSDIWG.
 - D. IHO Publication C-17 - *Spatial Data Infrastructures: "The Marine Dimension" – Guidance for Hydrographic Offices*, Ed 2.0, April 2016 (Draft)
 - E. UN-GGIM Committee of Experts:
<http://ggim.un.org/docs/meetings/GGIM6/GGIM%206th%20Session%20-%20List%20of%20Participants%20as%20circulated.%20rev5.pdf>
and Regional Entities: <http://ggim.un.org/Regional%20Entities.html>

PROPOSAL:

The IHO Assembly is requested to consider the UN-GGIM “*Statement of Shared Guiding Principles for Geospatial Information Management*”, which emphasizes the importance of making all geospatial data available to a broad user community and managing it within a common framework. Hydrographic Offices are key providers of marine geospatial information that is highly valuable to many users beyond the traditional Safety of Navigation customers, yet the marine domain is not fully represented in the UN-GGIM considerations.

To address the issue of geospatial information management, the UN-GGIM conducted a wide ranging consultation and deliberation process with its Member States and geospatial experts that resulted in the creation of a statement of Shared Guiding Principles. IHO Member States are invited to consider how the UN-GGIM principles can be incorporated into national and international frameworks that govern how we operate.

The Assembly is invited to:

1. Note the UN-GGIM document, *The Statement of Shared Guiding Principles for Geospatial Information Management*.
2. Task the IRCC and its subsidiary bodies (RHCs, MSDIWG), in cooperation with the Secretariat of the IHO, to identify and recommend whatever actions may be required to incorporate the Shared Guiding Principles for Geospatial Information Management in their work programs, paying particular emphasis to the following:
 - a. Preamble (e): “*it is desirable that guiding principles are incorporated in the institutional frameworks that govern geospatial information organizations and understood at all political levels and by all stakeholders in national authorities.*”

- b. **Innovation (e):** *“Open data: where feasible adopt policies that maximize access to and use of open, free and unrestrictive geospatial information for innovation, efficient and effective decision making and a spatially enabled society.”*
 - c. **Governance (m):** *“International cooperation and harmonization: engage in bilateral and multilateral cooperation in geospatial information management to foster effective and efficient geospatial data management systems in all Member States. Harmonization of national geospatial data and services at regional and global levels is encouraged in order to meet the needs of supranational users.”*
3. **Encourage Member States to incorporate the principles into institutional frameworks that govern the collection, use, and dissemination of hydrographic data, products, and services.**
 4. **Support the continued engagement of the Secretariat of the IHO with the UN-GGIM.**
 5. **Encourage Member State HOs to liaise with their national representatives in UN-GGIM on best practices and to help ensure that ocean and coastal geospatial data is considered as an integral part of national SDI initiatives.**
 6. **Encourage Member States and RHCs to engage with the UN-GGIM and its regional entities to raise awareness of the marine domain, any of its unique needs, and the value of the domain within any geospatial information management effort.**

EXPLANATORY NOTE:

National Hydrographic Offices (HOs) have traditionally viewed their role as a provider of nautical charts to support efficient Safety of Navigation (SoN). This role will not change; however, there is a developing recognition that HOs are key providers of marine geospatial information, in all its forms, to a broad user community beyond traditional SoN customers. As national HOs, our collective data, products, and services form the baseline of reliable information that supports the concept of a Marine Spatial Data Infrastructure (MSDI). We are the authoritative, hydrographic, geospatial information managers for our nations, and with proper governance, maximizing access to this information will gain greater support from more users to spatially strengthen the various sectors of our national societies (e.g., commerce, navigation, scientific research, resource management).

UN-GGIM is playing a leading role in setting the agenda for the development of global geospatial information. It provides a forum to liaise and coordinate between UN Member States and international organizations. The mandate of the UN-GGIM is to provide a platform for the development of effective strategies on how to build and strengthen national capacity on geospatial information, as well as disseminating the best practices and experiences of national, regional and international bodies on geospatial information.¹

The mandate also includes overarching principles inherent in the professional practices of geospatial information management, including recognition of the broad societal need to make data widely accessible. Adherence to the mandate and the principles enhances the public trust in the value of hydrographic data to a variety of applications beyond traditional applications in the global marine transportation system. Operating with common principles and approaches to the management of marine geospatial information will allow national HOs to meet the needs of a broader community of marine data and information users.

To address the issue of geospatial information management, the UN-GGIM conducted a wide ranging consultation and deliberation process with its Member States and geospatial experts that resulted in the creation of a statement of Shared Guiding Principles. This document, *The Statement of Shared Guiding Principles for Geospatial Information Management*, has been adopted by the UN-GGIM for application to all geospatial data, including marine information created and maintained by national HOs.

¹ Adapted from UN-GGIM information.

HOs need to consider how the UN-GGIM principles can be incorporated into our national and international frameworks that govern how we operate.

MSDI is actively being discussed within the IRCC, the MSDIWG, and the Regional Hydrographic Commissions. IHO publication C-17 developed by the MSDIWG is undergoing an update based on the changing roles of HOs as data managers/providers, the current technological environment, and the latest best practices. It provides general guidance to HOs to consider regarding the implementation of MSDI. In 2016, Canada completed *A Comparative study on the development of Marine Spatial Data Infrastructure by IHO Member Nations*. The result was that many nations are making progress, but there is work to be done developing improved governance policies and supporting this effort across the marine community.

These topics are also part of the general discussions at the RHCs. Member States are invited to discuss how they are addressing these concepts within their national programs as some regional efforts are starting to make progress in meeting the needs of the wider community.

There is a clear need to link the marine geospatial management efforts with the land-focused efforts being considered by the UN-GGIM and other geospatial information management governance bodies. As can be seen from the UN-GGIM participant list, there are very few representatives from the global maritime domain.

MEMBER STATES' COMMENTS

CROATIA:

Croatia supports this proposal.

FINLAND:

Finland is in favour.

FRANCE:

France supports this proposal and recommends that the MSDIWG be more involved in the activities of the UN-GGIM, notably by studying the UN-GGIM reports in order to consider the transposition of the general principals to data produced by Hydrographic Offices.

This includes also aspects involving pricing policy and economic models in relation with the promotion of open data, an area which needs to be explored at the MSDIWG whilst taking into consideration “local” requirements (such as European policies on public sector information).

Recent exchanges with UN-GGIM Europe on the specifications for administrative boundaries, reveal, the importance of coordination to ensure convergence with the S-121 standard.

ITALY:

Italy supports the proposal. EC Regulations include a policy on open data and the IIM is working together with other Italian authorities on a draft of the relevant norms to comply with the new standards.

NEW ZEALAND:

New Zealand fully supports this proposal

RUSSIAN FEDERATION:

No objections.

SPAIN:

Spain supports this proposal.

UNITED KINGDOM:

The United Kingdom supports the need to note the UN-GGIM "Statement of shared guiding principles for geospatial/ information management" and agrees to the tasking of IRCC to identify actions required. However the proposal to encourage MS to incorporate the principles, is imprecise, without the guidance that will arise from the tasking of IRCC/MSDI/RHCs. UK supports the continued engagement of the secretariat and the encouragement of MS to liaise with national reps to UN-GGIM.

PRO 8: REVISE THE STANDARDS OF COMPETENCE FOR HYDROGRAPHIC SURVEYORS

Submitted by: Italy

PROPOSAL:

The Assembly is requested to approve the preparation, under IHO Secretariat responsibility, of a questionnaire with the task of providing suggestions for the IBSC from Hydrographic Offices towards a new amended version of the Standards of Competence, in order to accommodate for the needs and demands of a world where hydrographers are employed in a wider range of activities - boundary delimitation, sea-related business, environment, etc. – and not just as cartographers.

EXPLANATORY NOTE:

1. Education is essential in creating and maintaining a modern hydrographic service. Over twenty IHO Member States offer more than thirty technical training programs in hydrography in compliance with IHO guidelines. In cooperation with the Fédération Internationale des Géomètres (FIG), and the International Cartographic Association (ICA), a comprehensive set of Standards of Competence for hydrographic surveyors and nautical cartographers have been drawn up, together with appropriate syllabi for the guidance of universities and teaching establishments. An International Board supervises the application of these standards. Three publications relating to education and training were issued:

- IHO Publication S-5 (S-5B and S-5A-draft): “*Standards of Competence for Hydrographic Surveyors*”;
- IHO Publication S-8: “*Standards of Competence for Nautical Cartographers*”;
- IHO Publication C-47: “*Courses in Hydrography and Nautical Cartography*”.

2. Capacity Building is considered by the IHO as a strategic objective, defined as the process by which the Organization assesses and assists in sustainable development and improvement of Countries, to meet IHO’s objects and the Hydrography, Cartography and Maritime Safety obligations and recommendations described in UNCLOS, SOLAS V and other international instruments. Also during the CBSC14 and IRCC8 some delegates from some Regions have put in evidence specific needs about training in their areas.

3. Italy fully supports the indication in CL 14/2013 (*...recognizes the benefit of feedback and contributions from the broad range of stakeholders in order to ensure that any revision of the existing standards take into account the requirements and expectations of the stakeholders...*) but feels that the present Standards of Competence have a rather academic approach particularly in the new category A draft version.

Italy feels that the latest IBSC proposal on training hydrographers skilled enough to work with competence across the full spectrum of their profession is in contrast with a general trend towards highly specialized professionals in given fields. No engineer can deal with IT, building, aerospace, mechanics and logistics at the same time. Likewise no hydrographer can possibly be equally proficient in remote sensing, nautical charting, port management and coastal engineering, data management, offshore geophysical surveying, military and inland waters hydrography.

4. The importance of international organizations in establishing appropriate standards and guidance is universally recognized. For over 90 years the IHO has consistently worked towards achieving maximum standardization in nautical products, services and surveys. IHO publications M and S series are an example.

5. Italy feels that a new approach to training hydrographers is required, offering modular and flexible solutions, also in view of innovative technical solutions such as Crowd Sourced Bathymetry, Remote Sensing etc. The IHO Secretariat should have an essential role in order to transfer the requirements emerging in the hydrographic community to the IBSC.

MEMBER STATES' COMMENTS**BRUNEI DARUSSALAM:**

Generally this process to revise and improve the standards of competence for hydrographic surveyors is something that should be done periodically or when necessary; as it will contribute eventually to the quality of the work done. As indicated in the proposal Remote Sensing needs to be considered in this new approach to training hydrographers it has already been included by leading institutions in hydrography and marine environment such as the University of Plymouth. The modules in Remote Sensing and GIS were integrated as one single module with the other modules and in the Category A accredited subjects offered for MSc in Hydrography at that university.

As an example, a surveyor from Brunei Survey Department, who recently completed this course, has experienced and acquired these skills. This is thought to be a complementary subject to the other typical modules that are essential to hydrography.

CROATIA:

Croatia supports this proposal.

DENMARK:

Denmark supports the proposal.

DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA:

We agree with this proposal.

We consider that the establishment of appropriate standards of competence for hydrographic surveyor is a fundamental basis of quality control of charts.

FINLAND:

Finland is in favour.

FRANCE:

Gaining feedback in order to adapt training to the needs of employers is essential. France considers:

- That a survey on this subject should not only aim at hydrographic offices but other employers too (public authorities, engineering consulting ...)
- Such a survey today would be premature considering the recent review of the standards of competence which does not allow sufficient experience of the new developments.

NEW ZEALAND:

New Zealand does not support this proposal.

The Standards encapsulate the fundamental competencies which allow for a wide range of specialisations. Organisations are free to refine their programme in alignment with a specialisation of their choosing by allocating additional hours. This offers greater flexibility than would be available through named specialisations.

RUSSIAN FEDERATION:

No objections.

SPAIN:

Spain supports this proposal.

UNITED KINGDOM:

The United Kingdom broadly supports this proposal, however noting the time pressures for delivering courses, it is suggested that few institutions will accept any additional Learning Outcomes in the syllabi without compensating reductions. This is certainly the UK view and this suggests any amendments to the standards of competence could prove a difficult exercise. Furthermore the suggestion for a new, modular approach to training is likely to prove an additional substantial body of work and in many respects would mark a return to previous S-5 option-based accreditation (albeit with updated modules) at a time when many institutions have geared themselves towards delivering the new S-5A and S-5B.

IBSC CHAIR COMMENTS

The Proposal as interpreted by the IBSC potentially undermines the philosophy and aim of the Standards of Competence.

The present Standards have been developed in open and consultative process with the relevant stakeholders in accord with the procedures of the parent bodies: IHO/FIG/ICA. In terms of the specific IHO process for the adoption of Standards, the IHC18 (2012) approved the new structure of the Standards and subsequently, in 2015/2016, Member States approved the S-5A and S-5B Standards.

It is worth reminding the Assembly that the removal of the Options and the Standards in no way inhibits institutions from developing options within their programmes that meet their own specific requirements.

Maintenance of the Standards over time routinely takes feedback into account from the experience of those delivering programmes and the Board takes any opportunity to interact with stakeholders.

PRO 9 - REVISE IHO PUBLICATION M-3 – REPERTORY OF IHO RESOLUTIONS

Submitted by: IHO Secretariat (Secretary-General)

Reference: IHO Publication M-3 - *Repertory of IHO Resolutions*, 2nd Edition - 2010, Updated to July 2015

PROPOSAL:

In order to reflect the new structure of the IHO as defined in the amendments to the Convention on the IHO and the other Basic Documents of the IHO that entered in to force on 8 November 2016, the Assembly is requested to agree to:

- a. The editorial amendments to IHO Publication M-3 - *Repertory of IHO Resolutions*, 2nd Edition - 2010, Updated to July 2015, as set out in Annex A to this Proposal, and**
- b. The development of substantive amendments according to the proposals set out in Annex B.**

EXPLANATORY NOTE:

1. IHO Publication M-3 contains the repertory of IHO resolutions. The current edition is the 2nd Edition, 2010, updated to July 2015.
2. The implementation of the new structure of the IHO, as defined by the Protocol of amendments to the Convention on the IHO approved by the 3rd Extraordinary International Hydrographic Conference in 2005 (EIHC-3) and the other new Basic Documents of the IHO approved by the 17th International Hydrographic Conference in 2007 (IHC-17), and that entered in to force on 8 November 2016, has an impact on a number of resolutions that need to be updated accordingly.
3. After a review of Publication M-3, the IHO Secretariat (Secretary-General) proposes a two-level approach.
4. The first level consists of straightforward editorial amendments reflecting the changes in the nomenclature of the Organization (for example the change from Conference to Assembly) and other similar minor, non-substantive adjustments. These proposed amendments are set out in Annex A.
5. The second level addresses several substantive amendments that reflect the requirements of the new organizational framework and other recent developments and that have a significant impact on the content or scope of the relevant resolutions. These substantive amendments are identified in Annex B with proposals for revised texts or for further work as appropriate.

Annex A to PRO 9
Proposed Editorial Amendments to IHO Resolutions

Title	Reference	Last amendment (CL or IHC)	1 st Edition Reference
VISITS TO IHB BY HEADS OF HYDROGRAPHIC OFFICES	6/1972 as amended	13/1997	T1.4
Replace “IHB” with “IHO Secretariat”. Replace “Conference” with “Assembly.”			
LANGUAGES USED IN CORRESPONDENCE WITH THE BUREAU AND AMONG MEMBER STATES	13/1962 as amended	IHC 15	T1.6
Replace “Bureau” with “IHO Secretariat”.			
MEMBERSHIP IN IHO AND CO-ORDINATION OF HYDROGRAPHIC SERVICES THROUGHOUT THE WORLD	5/1952 as amended	72/2009	T2.2
Amend the text as follows: The Conference is <u>IHO Member States are</u> aware that certain countries with important hydrographic interests are not yet Members of the IHO. In this connection, the delegates in plenary session expressed the unanimous opinion that <u>The co-operation of these countries would result in a considerable and increasingly effective co-ordination of hydrographic services throughout the world, a co-ordination which would lead to a greater degree of standardization of charts and nautical documents and would considerably improve the theory and practice of the science of hydrography.</u> 2 Furthermore, it is strongly recommended that the IHB Secretary-General and Directors <u>IHB Secretary-General and Directors</u> stimulate in all States without Hydrographic Offices an interest in, and an appreciation of the importance of, setting up such an organization in their country.			
SECONDMENT OF PERSONNEL FROM MEMBER STATES TO THE IHB	3/1987 as amended	54/2008	T4.2
Replace “IHB staff/Staff” with “Secretariat Staff”. Replace “International Hydrographic Bureau (IHB)” with “IHO Secretariat”. Replace “IHB” with “Secretariat”. Replace “Directing Committee” with “Secretary-General”. Replace “a Director” with “the Secretary-General or a Director”. Replace “IHB Pension and Medical care schemes” with “Pension and Medical care schemes of the IHO”. Replace “the President, IHB on behalf of the Directing Committee” with “the Secretary-General”.			
PRACTICAL IMPLEMENTATION OF VOTING PROCESSES			T6
Amend the text as follows: In considering the Report provided by the IHO Legal Advisory Committee (LAC)¹, Member States decided that the following meanings should be used to determine the two-thirds majority required for the voting procedures under Articles XX and paragraph 3c of Article XXI of the IHO Convention as amended:			
DETERMINING THE MAJORITY REQUIRED TO APPROVE AMENDMENTS TO THE CONVENTION	1/2009		T6.1
Amend the text as follows: In order to determine the majority required to approve the entry into force of an amendment to the Convention in accordance with paragraph 3c of Article XXI of the Convention, the expression “approval by two-thirds of the Contracting Parties after notifications of consent to be bound by two-thirds of the Member States have been received by the Depository” shall be interpreted as meaning two-thirds of the Contracting Parties <u>Member States</u> entitled to vote at the time of the approval by the Conference <u>Assembly</u> .			
DETERMINING THE MAJORITY REQUIRED TO APPROVE ADMISSION TO THE IHO	2/2009		T6.2
Replace “Member Governments” and “Contracting Parties” with “Member States”.			
THE PRINCE ALBERT 1 ST MEDAL FOR HYDROGRAPHY	2/2014	EIHC 5	-
Amend paragraph 1 as follows:			

Title	Reference	Last amendment (CL or IHC)	1 st Edition Reference
<p>(...) The Medal is had always been presented by the Prince of Monaco himself during the Opening Ceremony of the ordinary International Hydrographic Conferences. (...) Implement the changes as already indicated in paragraphs 2, 3 and 4.</p>			
LIQUIDITY OF THE IHB	3/1972 as amended	FCL16/2003	R1.1
<p>Amend the title as follows: Liquidity of the IHB IHO Secretariat Amend the text as follows: It is resolved that in complying with Article 18 of the Financial Regulations the term “operating cash reserve-emergency reserve fund” shall be understood to include only those amounts of money which are available to the IHB IHO Secretariat for current operating expenses, and shall specifically exclude all money which is part of the Staff Internal Retirement Fund and all money held in special funds against specific future requirements, e.g. for I.H. Conferences-Assemblies, re-location of IHB Directors Internationally Recruited Members of Staff, renovation and re-equipment of IHB the Secretariat. The term shall also exclude any cash arising from contributions paid in advance.</p>			
TANGIBLE ASSETS OF THE BUREAU	8/1947 as amended	FCCL1/2003	R1.3
<p>Replace “Bureau” with “IHO Secretariat”. Replace “every five years” with “every three years”.</p>			
INTEREST ON BUREAU FUNDS	8/1926 as amended	IHC 14	R1.4
<p>Amend the title as follows: Interest on Bureau IHO Funds. Amend the text as follows: The inactive funds of the IHB IHO should be placed in interest-bearing deposit accounts in reputable banks, convenient for the financial administration of the Bureau IHO Secretariat.</p>			
ROUTINE INCOME OTHER THAN CONTRIBUTIONS	4/1972		R1.7
<p>Replace “Directing Committee” with “Secretary-General”.</p>			
EXTERNAL AUDIT - GENERAL PROVISIONS	1/2004		R5.1
<p>Amend the text as follows: The audit shall be conducted yearly in conformity with Generally Accepted Accounting Principles. The Finance Committee, the Council or the Conference Assembly may request the External Auditor to perform certain specific examinations. Nevertheless, the External Auditor shall be completely independent and solely responsible for the conduct of the audit. At the request of the Council, the Finance Committee or the Directing Committee Secretary-General, such auditing may be carried out at any time. The Directing Committee Secretary-General shall provide the External Auditor with the facilities he that they may require in the performance of the audit.</p>			

SHIPS' ROUTEING	1/1980 as amended	29/2009	A1.17
Replace "IHB" with "IHO Secretariat".			
PRINCIPLES AND PROCEDURES FOR MAKING CHANGES TO IHO TECHNICAL STANDARDS AND SPECIFICATIONS	2/2007	69/2014	A1.21
<p>Replace "IHB" with "IHO Secretariat".</p> <p>Replace "Member States" with "Member States through the Council"</p> <p>Amend clause 3.2.8 as follows:</p> <p>3.2.8 After endorsement by the Committee <u>and the Council</u>, the new or changed standard should be submitted to Member States by the IHB <u>IHO Secretariat</u> for approval of the content, and confirmation of the "effective date".</p> <p>and amend the diagram in clause 3.2 and the flow chart in clause 5.3 accordingly.</p> <p>Update the column "relevant maintenance body" in Appendix 1 according to the new structure of HSSC working groups.</p>			
HYDROGRAPHIC OFFICE ARRANGEMENTS FOR THE EXCHANGE AND REPRODUCTION OF NAUTICAL PRODUCTS	7/1919 as amended	8/1995	A3.4
<p>In the note, replace "TR" with "Resolution".</p> <p>In clause 7, replace "International Hydrographic Bureau" with "IHO Secretariat".</p>			
INTERNATIONAL STANDARDIZATION OF GEOGRAPHICAL NAMES	1/1972 as amended	8/1974	A4.2
Replace "IHB" and "Bureau" with "IHO Secretariat".			
NAMING OF UNDERSEA FEATURES	2/1987 as amended	59/1991	A4.3
Replace "IHB" with "IHO Secretariat".			
HISTORICAL ACCOUNTS OF HYDROGRAPHIC OFFICES	30/1919 as amended	59/1991	H1.2
Replace "IHB" and "Bureau" with "IHO Secretariat".			
MARINE SPATIAL DATA INFRASTRUCTURE (MSDI) POLICY	5/2009		K4.7
Replace "Special Publication" with "IHO Publication".			
CENTRALIZATION OF OCEANIC SOUNDINGS	3/1929 as amended	85/2008	A5.3
<p>Replace "IHB" with "IHO Secretariat".</p> <p>In clause 1, replace "GEBCO Guidelines (IHO Publication B-7)" with "GEBCO Cook Book (IHO Publication B-11)".</p>			
EXTENSION OF WORLD NETWORK OF TIDAL OBSERVATIONS	5/1932 as amended	19/2008	A6.4
Replace "IHB" with "IHO Secretariat".			
STUDY OF MEAN SEA LEVEL	6/1932 as amended	20/2012	A6.5
Replace "IHB" with "IHO Secretariat".			
IHO TRANSFER STANDARD FOR DIGITAL HYDROGRAPHIC DATA	1/1987 as amended	35/1996	A3.7
<p>Replace "IHB" with "IHO Secretariat".</p> <p>Replace "a Transfer Standard Maintenance and Application Development (TSMAD) Working Group" with "an ENC Standards Maintenance Working Group (ENCWG)".</p>			
IHO DATA PROTECTION SCHEME S-63	1/2007		A3.12
Replace "the IHB, as the IHO Secretariat" with "the IHO Secretariat".			
THE IMPORTANCE OF RESOLVING ISSUES RELATED TO THE FUNCTIONING OF THE "ECDIS-ENC SYSTEM"	1/2012	IHC 18	-
Replace "Bureau" with "IHO Secretariat".			
REGULATIONS OF THE IHO FOR INTERNATIONAL (INT) CHARTS AND CHART SPECIFICATIONS OF THE IHO	11/2002 as amended	75/2003	B5.6
Amend clause 3 as follows:			

It is resolved that the IHB IHO Hydrographic Services and Standards Committee (HSSC), through the Chart Standardization and Paper Chart Working Group (CSPCWG) appropriate working group , keep publication S-4 under review in order to advise the IHO on their updating. Member States having proposals to update S-4 should forward them to the CSPCWG working group through the I.H. Bureau IHO Secretariat.			
FREE DISTRIBUTION AND SALE OF IHO PUBLICATIONS	10/1937 as amended	39/2009	R4.1
Amend clause 1 c) as follows: c) One copy to former Presidents, Secretaries-General and Directors of the IHB , if requested. Replace “IHB” with “IHO Secretariat”. Replace “Directing Committee” with “Secretary-General”.			
TRANSLATION OF IHO PUBLICATIONS	2/2008		R4.2
Replace “IHB” with “IHO Secretariat”.			
DOCUMENTATION	12/1962 as amended	EIHC 5	T1.5
Replace “IHB” and “Bureau” with “IHO Secretariat”. Replace “Category B Staff” with “Locally Recruited Members of Staff”.			
HYDROGRAPHIC DICTIONARY (S-32)	7/1929 as amended	32/2010	K3.3
Replace “IHB” with “IHO Secretariat”.			
STATUS OF HYDROGRAPHIC SURVEYING AND NAUTICAL CHARTING WORLD WIDE	1/2010		A1.22
Replace “IHB” with “IHO Secretariat”.			
REPORTS OF PROCEEDINGS OF I.H. CONFERENCES	9/1929 as amended	72/2009	Q2.4
Amend the title as follows: Report of Proceedings of I.H. Conferences <u>Assembly sessions and Council meetings</u> Amend the text as follows: The Proceedings of International Hydrographic Conferences <u>Assembly sessions and Council meetings</u> will be prepared by the IHB IHO Secretariat and shall comprise summary reports records of the different sessions of the Conference <u>all meetings</u> . It will be made available in digital form after the Conference <u>Assembly</u> . The IHB IHO Secretariat will prepare a limited number of printed copies for the IHB IHO Secretariat Library. in accordance with rule 20 of the Rules of Procedure of the Assembly and rule 16 of the Rules of Procedure of the Council.			
INTERNATIONAL HYDROGRAPHIC REVIEW	6/2009 as amended	EIHC 5	Q2.5
In paragraph 1, replace “the International Hydrographic Bureau (IHB)” with “the International Hydrographic Bureau (IHB) (now IHO Secretariat)”. Replace “IHB Directing Committee” with “Secretary-General”. Replace “IHB” with “IHO Secretariat”.			
REPERTORY OF RESOLUTIONS	13/1932 as amended	72/2009	Q3.1
Amend the text as follows: 1 All resolutions adopted by I.H. Conference <u>the Assembly</u> or by correspondence shall be compiled in one volume. 2 It is resolved that the IHB IHO Secretariat shall keep the Repertory of Resolutions up to date by periodically submitting, through circular letters to Member States, amendments to existing resolutions and new resolutions on any subject, provided that they do not concern matters which would be more appropriately handled by Conferences <u>the Assembly through the Council</u> . These amendments or new resolutions may be proposed either by a Member State or by the Council <u>or by the IHB Secretary-General</u> . 3 It is strongly recommended that the IHO Hydrographic Dictionary be used to standardize terminology of the Resolutions.			
GENERAL REGULATIONS OF THE IHO	6/1967 as amended	72/2009	Q3.3
FINANCIAL REGULATIONS OF THE IHO	6/1967 as amended	72/2009	Q3.4

IHO BASIC DOCUMENTS	5/1977 as amended	72/2009	Q3.5
<p>Replace with a single resolution as follows: Basic Documents of the IHO</p> <p>1. Subsequently to the approval of a Protocol of amendments to the Convention on the IHO in 2005, the 17th International Hydrographic Conference in 2007 approved the text of a revised set of rules, comprising the General and Financial Regulations and the Rules of Procedure, that contained a number of detailed provisions intended to supplement the provisions of the Convention as amended by the Protocol.</p> <p>2. These rules are kept updated through review and revision by Member States and the IHO Secretariat, through the Council and published as a single document (IHO Publication M-1) containing the Convention, the General and Financial Regulations, the Rules of Procedure and the Host Agreement between the Organization and the Government of the Principality of Monaco.</p>			
IHO RESPONSE TO DISASTERS	1/2005 as amended	29/2015	K4.5
Replace "IHB" with "IHO Secretariat".			
HYDROGRAPHY AND CARTOGRAPHY OF NAVIGABLE INLAND WATERS	4/2009		K4.6
Replace "International Hydrographic Bureau (IHB)" with "IHO Secretariat".			
TECHNICAL ASSISTANCE AND COOPERATION IN THE FIELD OF HYDROGRAPHY	2/1972 as amended	35/1996	K4.1
<p>Replace "Articles II and VIII(e)" with "Article II (c)".</p> <p>Replace "IHB" and "Bureau" with "IHO Secretariat".</p> <p>Amend clause 3 as follows: The Directing Committee <u>Secretary-General</u> is invited to report annually to Member States <u>through the Council</u> on measures taken regarding the above-mentioned actions.</p>			
TRAINING AND TECHNICAL ASSISTANCE TO DEVELOPING COUNTRIES	4/1977 as amended	17/2008	K4.3
<p>Replace "IHB" with "IHO Secretariat".</p> <p>Delete ", in accordance with Article VIII of the Convention".</p>			
TECHNICAL ASPECTS OF THE LAW OF THE SEA	2/1992 as amended	28/2008	K4.4
Replace "IHB" with "IHO Secretariat".			
THE CAPACITY BUILDING FUND	5/2004 as amended	17/2008	R6.2
Replace "IHB" with "IHO Secretariat".			
PROCEDURES OF THE CAPACITY BUILDING FUND	7/2004 as amended	17/2005	R6.4
<p>Amend clause 1 as follows:</p> <p>1 IHO Member States, preferably through the RHC Chairmen Chairs, shall report to the CBC Chairman <u>of the Capacity Building Sub Committee (CBSC) at via the IHB IHO Secretariat</u>, no later than April each year, on the main capacity building initiatives needing financial support. The needs shall be clearly identified as well as the regional priority assigned.</p> <p>In clauses 2 to 4: Replace "CBC" with "CBSC". Replace "Conference" with "Assembly". Replace "IHB" with "IHO Secretariat". Replace "Capacity Building Committee" with "Capacity Building Sub-Committee".</p>			

Annex B to PRO 9

Proposed Procedures for the Preparation of Substantive Amendments to IHO Resolutions

Title	Reference	Last amendment (CL or IHC)	1 st Edition Reference
IHO RELATIONS WITH OTHER ORGANIZATIONS	5/1957 as amended	72/2009	T1.2
Purpose: to reflect the prerogatives of the Council in accordance with Article VI g (ix) of the revised Convention. Procedure: Secretary-General to submit a draft revised resolution to the first meeting of the Council.			
QUESTIONS DEALT WITH BY THE BUREAU BY CORRESPONDENCE	1/1969 as amended	43/1970	T2.1
Purpose: to reflect that the references mentioned in article 1 are no longer valid. Procedure: Secretary-General to submit a proposal (a draft revised resolution or revocation) to the first meeting of the Council.			
PROCEDURE FOR ELECTION OF A DIRECTOR BY CORRESPONDENCE	9/1967 as amended	35/1996	T3.1
Purpose: to reflect the change to Secretary-General and Directors and the terms of Article 25 of the new General Regulations. Procedure: Secretary-General to submit a draft revised resolution to the first meeting of the Council.			
PLANNING CYCLE	12/2002 as amended	EIHC 4	T5.1
Replace with the version approved by Decision 4 of the EIHC-4 (see text in Appendix 1).			
TONNAGE FIGURES	5/1972 as amended	35/1996	R2.1
Purpose: to reflect the new provisions of article 6 of the new Financial Regulations. Procedure: Secretary-General to submit a draft revised resolution to the first meeting of the Council.			
HISTORIC RECORD OF THE VALUE OF A SHARE OF IHO CONTRIBUTIONS	9/1937 as amended	IHC 14	R3.1
Noting that the record of the value of the share is provided in the Finance Report to the Conference / Assembly, it is proposed to revoke this resolution.			
EXTERNAL AUDIT – REPORTS	3/2004		R5.3
Noting that the provisions are superseded by article 19 d of the new Financial Regulations, it is proposed to revoke this resolution.			
GUIDING PRINCIPLES FOR IHO FUNDS	1/2014	33/2014	-
Purpose: to take in to account the role of the Council and to reflect the provisions of the revised IHO Staff Regulations if and when approved. Procedure: Secretary-General to submit a draft revised resolution to the first meeting of the Council.			
PREPARATIONS FOR INTERNATIONAL HYDROGRAPHIC CONFERENCES	4/1957 as amended	72/2009	S1.1
Purpose: to reflect the new Rules of Procedure of the Assembly and consider extending the scope of the resolution to include preparations for meetings of the Council. Procedure: Secretary-General to submit a draft revised resolution to the first meeting of the Council.			
CHECKING OF PROPOSALS SUBMITTED BY MEMBER STATES	8/1967 as amended	23/1970	S1.3
Purpose: to consider extending the scope of the resolution to incorporate proposals submitted to the Council. Procedure: Secretary-General to submit a draft revised resolution to the first meeting of the Council.			
ADOPTION OF THE CONCLUDING PROCEDURE	1/1965 as amended	IHC 9	S2.3
Purpose: to consider extending the scope to include the meetings of the Council and the Finance Committee. Procedure: Secretary-General to submit a draft revised resolution to the first meeting of the Council.			

POSSIBILITY OF CONSIDERING A WITHDRAWN PROPOSAL	2/1965 as amended	IHC 9	S2.4
Purpose: to consider extending the scope of the resolution to include the meetings of the Council and Finance Committee. Procedure: Secretary-General to submit a draft revised resolution to the first meeting of the Council.			
REGIONAL SCHEMING OF INT CHARTS	2/1982 as amended	CHRIS 20	B5.4
Noting that the provisions of this resolution are superseded by Part A of IHO Publication S-11 - <i>Guidance for the Preparation and Maintenance of International Chart Schemes and Catalogue of International (INT) Charts</i> , it is proposed to revoke this resolution.			
MONITORING OF INT CHARTS	1/1992		B5.5
This resolution is under review by the Inter-Regional Coordination Committee (IRCC) in accordance with Decision No. 2 of the EIHC-5.			
LIMITS OF OCEANS AND SEAS (S-23)	32/1919 as amended	IHC 11	K3.2
This resolution is in abeyance in accordance with Decision No. 10 of the IHC-17. Any revision would be subject to a decision of the Assembly on related proposal(s) noting Decision No. 5 of the EIHC-5.			
GEOGRAPHICAL SEQUENCE OF STATIONS	8/1932 as amended	IHC 9	E2.2
Purpose: to reflect changes to the names of countries listed in the resolution. Procedure: HSSC to include the revision of the resolution in its Work Plan and report to the Council.			
ESTABLISHMENT OF REGIONAL HYDROGRAPHIC COMMISSIONS (RHC)	2/1997 as amended	69/2010	T1.3
Purpose: to ensure consistency with article 8 of the new General Regulations. Procedure: IRCC to include the revision of the resolution in its Work Plan and report to the Council.			

Annex B to PRO 9

Appendix 1

PLANNING CYCLE	12/2002 as amended	EIHC 4	T5.1
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The Organization shall prepare two plans to guide its work.

The Strategic Plan shall be for an indefinite period, and shall be reviewed at each ordinary session of the Assembly.

The 3-year Work Programme shall look three years ahead, and shall be reviewed annually.

Planning Cycle for the Strategic Plan

Y-12 (Apr): The Secretary-General invites MS, HSSC and IRCC to submit proposals to update the Strategic Plan.

Y-08 (Aug): The Secretary-General circulates proposals on strategic issues to all MS.

Y-05 (Nov): MS provide comments to the Secretary-General in relation to the proposals.

Y-04 (Dec): The Council reviews the comments and drafts a proposal to confirm, amend or revise the Strategic Plan.

Y (Apr): At the Assembly, the Council proposal is discussed, amended and decided upon in Plenary.

Y+02 (Jun): The Secretary-General circulates the updated Strategic Plan to MS.

Notes:

1) Rules of Procedure of the Assembly No. 4 and No. 9 apply.

2) "Y" means the year of the ordinary session of the Assembly, and the numbers are months before (-) or after (+).

Planning Cycle for the 3-year Work Programme

The 3-year Work Programme will be reviewed on a yearly basis.

Y (Jan): The corresponding Annual Programme enters in force.

Y+04 (Apr): The Council evaluates the accomplishment of the preceding year's Work Programme, and reports to MS, through the "IHO Annual Report", reviews the Work Programme upcoming years, proposing changes (if needed) to the Programme in force and budgetary adjustments issuing from those changes, within the limits of the approved 3-year Budget.

Y+06 (Jun): MS provide the Secretary General with comments and proposals, if any, for changes to the Programme in force.

Y+08 (Aug): The Secretary General submits to the Council for approval the draft Programme and Budget for the upcoming year.

Y+12 (Dec): The Council approves the draft Programme and Budget and the Secretary General issues CL with the final version of the Programme and Budget.

Y+12 (Jan): The corresponding Annual Programme enters into force, and the Cycle is repeated.

During Assembly years, Article V (e) (v) of the Convention will apply and the Council will submit the new Work Programme and associated 3-year budget for the intersessional period 4 months before the opening of the session. The Work Programme and proposed 3-year Budget will be discussed and approved by the Assembly and will enter into force on 1st January of the year following the session. Then the Planning Cycle as described above will apply.

Note: "Y" means years.

MEMBER STATES' COMMENTS

CHILE:

We support Proposal 9 submitted by the IHO Secretariat. We consider it is convenient to revise and update resolutions as found necessary

CROATIA:

Croatia supports this proposal.

DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA:

We agree with this proposal.

We take note of the second level approach among the approaches of 2 levels proposed by IHO Secretariat (Secretary-General) and we intend to provide our comment at the 1st Session of the IHO Assembly.

DENMARK:

Denmark supports the proposal.

FINLAND:

In favour.

FRANCE:

In favour.

ITALY:

Italy supports the proposal.

NEW ZEALAND:

New Zealand supports this proposal.

RUSSIAN FEDERATION:

No objections.

SPAIN:

Spain supports this proposal.

UNITED KINGDOM:

The United Kingdom supports this proposal.

COMMENT OF THE IHO SECRETARIAT

As indicated in its report on the execution of Programme 1 (see document A.1/WP1/01), the Secretariat invites the Assembly to consider a proposed further revision of IHO Resolution 12/2002 – *Planning Cycle* presented in document A.1/WP1/04.

PRO 10 - PROPOSAL TO REVISE ARTICLE 13(c) OF THE FINANCIAL REGULATIONS OF THE IHO

Submitted by: Syrian Arab Republic

PROPOSAL:

To revise Article 13 of the Financial Regulations of the IHO by deleting Article 13(c) regarding the application of interest on the late payment of annual financial contributions from Member States:

~~*13(c) Annual contributions or portions thereof not paid before 1 January of the succeeding financial year shall be increased by interest from that date at the rate of one per cent for each month or portion thereof.*~~

EXPLANATORY NOTE:

1. Article 13(c) of the former Financial Regulations of the IHO states:

13(c) Annual contributions or portions thereof not paid before 1 January of the succeeding financial year shall be increased by interest from that date at the rate of one per cent for each month or portion thereof.

A similar provision is included in Article 13 of the new Financial Regulations that entered into force on 8 November 2016:

13(c) Annual contributions or portions thereof not paid before 1 January of the succeeding financial year shall from that date be subject to simple interest at the rate of one per cent for each month that they remain unpaid.

2. As part of settling its outstanding debt, the Syrian Arab Republic recently requested an exemption from paying interest on its outstanding financial contributions as required by Article 13(c) of the Financial Regulations. The IHO Secretariat brought this matter to the attention of the Officers of the Finance Committee (Chair and Vice Chair of the Finance Committee) at their meetings in April and November 2016.

3. The Finance Committee Officers took note of the request from the Member State and observed that levying interest on outstanding debts may not always serve a meaningful purpose in ensuring timely payment of debts because in many cases late payment is caused by economic, geopolitical or administrative factors that are beyond the control of the Member States' representatives. The threat of suspension appears to be the principal catalyst for action.

4. The Finance Committee Officers concluded that the matter might be considered further by the Assembly in April 2017 if the Member State wished to pursue the matter.

5. The IHO Annual Report 2015 - Part 2 - *Finances* indicates that a provision of 22.5k€ was made in 2015 to account for the outstanding interest charges due from the Member States that had settled their contributions in arrears. The interest remaining due at the end of 2015 stands at 4.6k€ after depreciation.

6. The following UN bodies with which the IHO has close association: the IMO, IAEA and ISA, have a similar mechanism to the IHO to suspend the voting rights of Members that are in arrears. However, none of these organizations levy interest on outstanding or late payment of annual financial contributions.

7. Taking into account the situation described above, it is proposed that the Assembly consider cancelling the current requirement to levy interest on the annual financial contributions of Member States that are in arrears by:

- a. **Withdrawing** Article 13(c) of the Financial Regulations, and
- b. **Writing off** the outstanding interest on late payments shown in the accounts of the IHO.

MEMBER STATES' COMMENTS

CROATIA:

Croatia supports this proposal.

FRANCE:

Under consideration.

MAURITIUS:

Mauritius supports the waiver of outstanding interest rates on late payment of the annual financial from Member States as proposed by the Syrian Arab Republic in Assembly Circular Letter 10 bis -1.

RUSSIAN FEDERATION:

No objections.

UNITED KINGDOM:

The UK is supportive of the proposal to revise article 13c of the Financial Regulations of the IHO to remove interest charges on the late payments.

UNITED STATES OF AMERICA:

The United States does not support the proposal.

COMMENT OF THE IHO SECRETARIAT

The consideration of this proposal is an item in the draft agenda of the meeting of the Finance Committee (see IHO FCCL 04/2016). The Finance Committee will be invited to consider the proposal and the comments received and advise the Assembly

PRO 11 - PROPOSAL TO ADOPT A RESOLUTION ON IMPROVING THE AVAILABILITY OF BATHYMETRIC DATA WORLDWIDE

Submitted by: IHO Secretariat (Secretary-General)

PROPOSAL:

**To adopt a Resolution on improving the availability of bathymetric data worldwide
Improving the Availability of Bathymetric Data Worldwide**

Noting that the depth of a significant percentage of the world's seas, oceans and waterways has yet to be measured directly;

Noting that bathymetric knowledge underpins the safe, sustainable, cost effective execution of almost every human activity in, on or under the sea;

Recognizing the relevance of bathymetry in the maritime aspects of the UN's 2030 Agenda for Sustainable Development Goals, the Paris Agreement under the United Nations Framework Convention on Climate Change and the Sendai Framework for Disaster Risk Reduction 2015-2030;

Noting that significant amounts of bathymetric data is collected by the scientific and commercial sector for purposes other than chart improvement, but is not easily made discoverable or available for secondary purposes;

Noting that in the absence of any data, bathymetric data that may not support precise navigation may nevertheless still be useful for many potential users of the world's seas, oceans and waterways;

1. Member States **resolve** that, in addition to fulfilling their international obligations to provide hydrographic information in support of safety of navigation, they should also consider implementing mechanisms that encourage the widest possible availability of all hydrographic and particularly bathymetric data, so as to support the sustainable development, management and governance of the marine environment. This may be achieved in several ways, including:

- a. active participation in and contribution to the marine element of national Spatial Data Infrastructures (MSDI);
- b. continued support for the IHO-IOC GEBCO project and the IHO Data Centre for Digital Bathymetry;
- c. encouraging the scientific and the commercial sector to identify and wherever possible make available for secondary use, data collected or being collected for a specific scientific or commercial purpose;
- d. supporting systems and infrastructures, such as MSDI and the IHO DCDB, that facilitate data discovery, thereby avoiding unnecessary duplication in bathymetric data collection;
- e. encouraging supplementary methods for collecting bathymetric data, including, but not limited to:
 - (1) Crowd-Sourced Bathymetry,
 - (2) Satellite Derived Bathymetry,
 - (3) The use of autonomous vehicles for the collection of environmental data including bathymetry.

EXPLANATORY NOTE:**Background**

1. Proposal 6 of the XVIIIth International Hydrographic Conference, held in April 2012, considered the global status of hydrographic surveying and tasked ... *the IRCC and HSSC in cooperation with the Directing Committee to progress whatever actions are required to improve the collection, quality and availability of hydrographic data worldwide, monitor and rectify possible deficiencies and shortcomings, cooperate with other international organizations and stakeholders as necessary, and to keep Member States informed on progress on this issue.* (see IHC18-Decision 17).

2. At the 5th Extraordinary International Hydrographic Conference, held in October 2014, several discussions and considerations took place on ways to improve the current lack of bathymetric knowledge of many parts of the world's seas, oceans and waterways. Discussion at the Conference led to the need to explore sources of bathymetric data outside traditional surveys – particularly in support of providing a baseline global bathymetric model for the many non-navigational uses for bathymetry that are now emerging. This resulted in the establishment of a Crowd-Sourced Bathymetry Working Group (CSBWG) to provide guidance on how the IHO could encourage crowd-sourcing. Other potential sources of bathymetry such as the use of satellite-derived bathymetry were discussed. The role of Marine Spatial Data Infrastructures (MSDI) in improving access to hydrographic data was also highlighted. Discussions on these topics have continued to take place in most of the Regional Hydrographic Commissions.

Bathymetry Supporting the World's Increased Focus on the Sea

3. The focus on the world's seas, oceans and waterways continues to increase. The world is increasingly looking to the sea for resources. The concept of the *blue economy* is now firmly in place. At the same time, there is growing awareness of mankind's dependence on and vulnerability from the sea, ranging from destruction caused by natural disasters such as tsunamis and storm surges, to over-fishing and the inappropriate use of the sea's resources, to pollution and climate change. As a result, several high-level global initiatives are now in place that seek to address these issues, including the United Nations 2030 Agenda for Sustainable Development Goals, the Paris Agreement under the United Nations Framework Convention on Climate Change and the Sendai Framework for Disaster Risk Reduction 2015-2030.

4. In this context, the shortfall in bathymetric data is all the more significant, since both scientific study and the success of almost every human endeavour in the maritime domain depends in one way or another on knowing the depth and shape of the seafloor.

Potential Sources of Additional Bathymetric Data**Crowd-Sourced Bathymetry**

5. The International Maritime Organization (IMO) Safety of Life At Sea (SOLAS) carriage requirements obliges all commercial vessels to be equipped with certified, and inherently reliable, echo sounders and satellite-based position fixing systems. As such, the world's commercial fleet represents a significant untapped source of bathymetric observations. While these observations may not meet charting requirements for critical passages, such observations may still serve a very useful purpose, particularly in depths where data is old or of limited quality. Crowd-sourced bathymetry can be used to identify significant features that might merit further investigation by appropriately equipped surveying vessels. Crowd-sourced bathymetry can assist in verifying existing charted information, thereby avoiding the need for re-surveying. The location of crowd-sourced bathymetry can also help to confirm that charting schemes are appropriate for the current traffic patterns. In areas where otherwise little or no data exists, then crowd-sourced data, supported by appropriate metadata that will allow users to determine its fitness for their purpose, is useful. Many development activities and scientific studies require only an approximate depth, rather than depths measured to meet precise navigation requirements.

Data collected for scientific and other commercial purposes

6. Another very significant and largely untapped source of bathymetric data is from the scientific research and the commercial surveying sectors.

7. Informal discussion between the IHO Secretariat and several representatives of industry and academia that participate in IHO activities either as Expert contributors or as Observers indicates that survey data collected for a variety of scientific and commercial purposes could be more widely used.

8. Commercial survey companies enter into contracts both with Government departments and with commercial entities to undertake surveys that, if not solely hydrographic, at least contain a bathymetric element. The surveying companies render the collected data solely to their clients as they are contractually obliged to do, but in the knowledge that, whilst meeting the needs of the task, all or parts of the data could be exploited for much wider use and benefit. It is estimated that no more than 20% of the bathymetric data collected commercially during surveys for specific projects is made available to Hydrographic Offices for inclusion in charts or for wider uses.

9. Similarly, bathymetric data collected for scientific purposes often suffers a similar fate to commercially collected data, in that it is used for its primary purpose and then either archived or abandoned. In many cases, the existence of the data is difficult to discover. In addition, scientific vessels that are equipped to collect bathymetry, most often only collect data in the specific area of scientific interest. The concept of passage sounding is not widely understood or incorporated into voyage planning.

Purpose of the Resolution

10. The Resolution is intended to reaffirm the IHO's recognition of the existing shortfall in bathymetric knowledge of the seas, oceans and waterways and its consequences and the need, therefore, to urgently address this shortfall.

11. The Resolution is intended to indicate both to Member States and to others, such as commercial ship operators, academia and the commercial surveying sector that may be able to assist, that there are practical, generally low-cost, mechanisms available that can help address the global shortfall in hydrographic knowledge.

12. The Resolution is intended to support the current work of the MSDIWG, the CSBWG, the GEBCO Guiding Committee and the IHO Data Centre for Digital Bathymetry (DCDB).

MEMBER STATES' COMMENTS

CROATIA:

Croatia supports this proposal.

FRANCE:

France supports this proposal which is consistent with the open data policy at national and European level.

ITALY:

In view of the benefits for the marine environment and for a more efficient response to marine disasters, Italy supports the proposal.

JAPAN:

Japan recognizes the importance of improving the worldwide availability of hydrographic information and supports this proposal.

MEXICO:

Mexico totally agrees that there is no global bathymetric data coverage currently that gives a solution to the problems arising from human activities. Mexico supports and endorses the work of the Working Groups (MSDIWG, CSBWG & GEBCO) in their activities aimed at improving the hydrographic data availability.

NEW ZEALAND:

New Zealand fully supports the resolution on improving the availability of bathymetric data worldwide.

RUSSIAN FEDERATION:

No objections.

UNITED KINGDOM:

In response to the above Circular Letter, UK supports PRO-11, but with the following observations:

1. The remit of most HOs is primarily to support safe navigation rather than wider use of their data. Increased involvement in a wider remit is likely to require national recognition.
2. Regarding each of the mechanisms:
 - a) Few countries have a National Spatial Data Infrastructure. Active participation may require a national or regional government initiative to establish a NSDI/MSDI, and to acknowledge the HO's role.
 - b) GEBCO fully supports the aspirations of wider accessibility of hydrographic data for wider uses. With a largely scientific bias it needs support from beyond the HO community.
 - c) Encouraging the scientific and commercial sector to make data available for secondary use may not be primarily HO business. It generally requires a national initiative to be effective.
 - d) This makes no additional points not already included in a) and b)
 - e) HO's already make use of supplementary methods on a case by case and as needed basis. In most cases this will be justified on the requirements for nautical charting and safe navigation. Where such methods are used for additional purposes, the availability of the data is largely covered by point c).

UNITED STATES OF AMERICA:

The United States supports the Proposal and encourages the Secretariat and Member States to make every effort to be proactive stewards in the management and distribution of bathymetric data. Marine data held by member state hydrographic offices has great societal value in a wide variety of applications beyond charting.

PRO 12 - REVISION OF IHO RESOLUTION 4/1967 AS AMENDED - SUBMARINE CABLES

Submitted by: Germany

References: A: IHO Resolution 4/1967 as amended - *Submarine Cables*
B: Memorandum of Understanding between the International Hydrographic Organization and the International Cable Protection Committee, dated 18 April 2016

PROPOSAL:

It is proposed that IHO Resolution 4/1967 as amended - *Submarine Cables* be revised as described in the Annex.

EXPLANATORY NOTE:

In practical application of the Memorandum of Understanding (MoU) between the IHO and the International Cable Protection Committee (ICPC) signed in 2016, the Hydrographic Services and Standards Committee (HSSC) of the IHO tasked its subsidiary Nautical Information Provision Working Group (NIPWG) to update the applicable IHO Resolution on Submarine Cables (4/1967 as amended) in close consultation with the nominated technical experts of the ICPC. This task was successfully completed in November 2016 at the 3rd meeting of the NIPWG and the outcome received the full support of the ICPC representative.

The referenced Resolution provides guidance to Hydrographic Offices on how mariners should be informed, by means of appropriate nautical publications, about the potential threat of damage to submarine cables and the resulting actions to be taken if such an event occurs.

Under normal circumstances, the recommendations of the NIPWG would first be considered and endorsed by the HSSC, prior to seeking the approval of Member States. However, in this case, noting that the NIPWG, like the HSSC, is chaired by Germany, and considering the significant increase in global cabling activities across the world seas and oceans and the critical importance of their protection against potential damage through inappropriate vessel operations, and further noting the importance of being reactive to the concerns of the ICPC, Germany invites the IHO Assembly to directly consider and endorse the proposed revision of IHO Resolution 4/1967 on submarine cables.

Annex to PRO 12

Current version: (M-3, 2nd Edition, 2010, updated to July 2015)

SUBMARINE CABLES	4/1967 as amended	IHC 16	C3.10
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It is recommended that general information supplied to mariners by Hydrographic Offices either in Sailing Directions or in other documents include a note which specifies:

- a) that very high voltages are carried in modern multi-channel telegraphic and telephone cables;
- b) that consequently it is most dangerous to attempt to free an anchor or trawl by hauling in the cable; the anchor or trawl should be buoyed and cast off.

Proposed revision (redline version)

SUBMARINE CABLES	4/1967 as amended	IHC 16 IHO A-1	C3.10
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~~It is recommended that general information supplied to mariners by Hydrographic Offices either in Sailing Directions or in other documents include a note which specifies:~~

- ~~a) that very high voltages are carried in modern multi-channel telegraphic and telephone cables;~~
- ~~b) that consequently it is most dangerous to attempt to free an anchor or trawl by hauling in the cable; the anchor or trawl should be buoyed and cast off.~~

The following text should be used by Hydrographic Offices as the basis upon which to provide mariners with appropriate information in publications such as Mariners' Handbooks or annual Notice to Mariners:

Certain submarine cables are used for telecommunications functions while others are used for power transmission. All power cables and most telecommunications cables carry dangerous high voltages. Damaging or severing a submarine cable, whether a telecommunications cable or a power cable, may, in some circumstances be considered as a national disaster and very severe criminal penalties may apply. Electrocutation, with injury or loss of life, could occur if any cables carrying high voltage are breached. Depending on whether the cable is primarily for power or telecommunications, damage may result in power cuts, loss of voice, data transfer or internet connectivity. In these circumstances cables are considered to be critical infrastructure.

In view of the serious consequences resulting from damage to submarine cables, vessel operators should take special care when anchoring, fishing, mining, dredging, or engaging in underwater operations near areas where these cables may exist or have been reported to exist.

Mariners are also warned that the seafloor where cables were originally buried may have changed and cables may now be exposed; therefore particular caution should be taken when operating vessels in areas where submarine cables exist and the depth of water means that there is a limited under-keel clearance.

Vessels fouling a submarine cable should not attempt to clear or raise the cable due to the high possibility of damaging the cable. Anchors or gear that cannot be cleared should be slipped, and no attempt should be made to cut a cable. Before any attempt to slip or cut gear from the cable is made, the cable should first be lowered to the seafloor. Note that there is a risk of capsizing smaller vessels (primarily fishing vessels) if they attempt to bring a cable to the surface. Following an incident of fouling a cable, a vessel should immediately notify the local hydrographic authority of the position, type and amount of gear remaining on the seafloor. If a mariner, through no fault of their own, catches a cable with an anchor or gear, then sacrificing the anchor or gear to prevent damage to the cable is likely to lead to reimbursement; the cable owner is required to indemnify the mariner for the cost of the sacrifice¹. In inland areas or along the coast, warning signs or marker beacons are often erected to warn the mariner of the existence of submarine cables.

In order to avoid the risk of damaging submarine cables as much as possible, a 0.25-mile wide protected area² exists on either side of a submarine cable. Anchoring is prohibited within this area, even when there is no specific prohibition on the chart.

Incidents involving the fouling of submarine cables should be reported immediately³ to the appropriate authorities⁴ who should be advised as to the nature of the problem and the position of the vessel.

Notes:

¹ To claim a sacrifice, a vessel must within 24 hours of entering port after the sacrifice, file a claim with the cable owner accompanied by a statement from the crew. Most cable owners have a 24 hour toll-free number that a mariner can call to determine the position of a cable or to assist in making a decision on claiming a sacrifice.

² Each hydrographic authority can set this distance to a value that they feel is appropriate.

³ Each hydrographic authority can set the reporting time to a value that they feel is appropriate.

⁴ The appropriate authorities can be listed here, as well as contact methods (telephone, facsimile, VHF, e-mail, internet, etc.) and required information.

MEMBER STATES COMMENTS

CROATIA:

Croatia supports this proposal.

FRANCE:

In favour

ITALY:

Italy supports Germany's proposal.

MEXICO:

Mexico totally agrees with the description of the Submarine Cables proposed by Germany, in which the mariners are informed through a nautical publication about the potential economic, legal and environmental consequences resulting from affecting various types of submarine cables, as well as the actions to be followed in case of an accident or when there has been a non-observance of the navigational warnings.

NETHERLANDS:

The Netherlands generally agree with the initiative, and wish to contribute to the final proposed text with a few remarks:

1. Replace the notion of "hydrographic authority" by "appropriate authority". The hydrographic office may not be the appropriate authority in each MS. It is up to the MS themselves to identify the appropriate authority and to communicate this to the mariner.
2. Note 1 mentions a "24 hours" period. What is the origin of this period? If it is following an external source, please mention that source. If it is newly proposed, it needs some explanation as to why this is the correct time frame for a claim.

The Netherlands aims to contribute with these remarks to the success of the proposal, and is available for discussions and explanations.

NEW ZEALAND:

New Zealand supports this proposal.

RUSSIAN FEDERATION:

No objections.

UNITED KINGDOM: Suggested edits and comments inserted in the proposed text

The following text should be used by Hydrographic Offices as the basis upon which to provide mariners with appropriate information in publications such as Mariners' Handbooks or annual Notice to Mariners:

Certain submarine cables are used for telecommunications functions while others are used for power transmission. All power cables and most telecommunications cables carry dangerous high voltages. Damaging or severing a submarine cable, whether a telecommunications cable or a power cable, may, in some circumstances be considered as a national disaster and very severe criminal penalties may apply. Electrocution, with injury or loss of life, could occur if any cables carrying high voltage are breached. Depending on whether the cable is primarily for power or telecommunications, damage may result in power cuts, loss of voice, data transfer or internet connectivity. In these circumstances cables are considered to be critical infrastructure.

In view of the serious consequences resulting from damage to submarine cables, vessel operators should take special care when anchoring, fishing, mining, dredging, or engaging in underwater operations near areas where these cables may exist or have been reported to exist.

Mariners are also warned that the seafloor where cables were originally buried may have changed and cables ~~may now be~~ **become** exposed; therefore particular caution should be taken when operating vessels in areas where submarine cables exist ~~and~~ **especially where** the depth of water means that there is a limited under-keel clearance.

Vessels fouling a submarine cable should not attempt to clear or raise the cable due to the high possibility of damaging the cable. **No attempt should be made to cut a cable and** Anchors or gear that cannot be cleared should be slipped, ~~and no attempt should be made to cut a cable.~~ Before any attempt to slip or cut gear from the cable is made, the cable should first be lowered to the seafloor. Note that there is a risk of capsizing smaller vessels (primarily fishing vessels) if they attempt to bring a cable to the surface. Following an incident of fouling a cable, a vessel should immediately notify the local hydrographic authority of the position, type, and amount of gear remaining on the seafloor. If a mariner, through no fault of their own, ~~catches~~ **fouls** a cable with an anchor or gear, ~~then sacrificing~~ **and** the anchor or gear **has to be sacrificed** to prevent damage to the cable, **this action is likely to lead to reimbursement; the cable owner is required*** to indemnify the mariner for the cost of the sacrifice'. In inland areas or along the coast, warning signs or marker beacons are often erected to warn the mariner of the existence of submarine cables.

In order to ~~avoid~~ **minimize** the risk of damaging submarine cables as much as possible, a 0.25-mile wide protected area² **exists**** on either side of a submarine cable. Anchoring is prohibited within this area, even when there is no specific prohibition on the chart.

Incidents involving the fouling of submarine cables should be reported immediately³ to the appropriate authorities⁴ who should be advised as to the nature of the problem and the position of the vessel.

Notes:

1. To claim a sacrifice, a vessel must within 24 hours of entering port after the sacrifice, file a claim with the cable owner accompanied by a statement from the crew. Most cable owners have a 24 hour toll-free number that a mariner can call to determine the position of a cable or to assist in making a decision on claiming a sacrifice.
2. Each hydrographic authority can set this distance to a value that they feel is appropriate.
3. Each hydrographic authority can set the reporting time to a value that they feel is appropriate.
4. The appropriate authorities can be listed here, as well as contact methods (telephone, facsimile, VHF, e-mail, internet, etc.) and required information.

* The statements "likely to lead to reimbursement" and "owner is required to indemnify" are contradictory.

** Is the protected area mandatory or advisory? What is the legal status of such protected areas?

PRO 13 - THE FUTURE OF S-23

Submitted by: Republic of Korea

Reference: Report on Work to revise IHO Publication S-23 - "Limits of Oceans and Seas," IHO XVIIIth International Hydrographic Conference 2012 Report of Proceedings Vol. 2 - Rev. 1 (CONF.18/WP.1/Add.1), pp. 108–110, April 2012.

PROPOSAL:

It is proposed that the Assembly discuss the future of the outdated IHO Special Publication S-23, taking into account the Report on Work to revise IHO Publication S-23 (April 2012).

EXPLANATORY NOTE:

Special Publication S-23 has been considered to be the IHO's important publication in view of its use by cartographers, national institutions and commercial agencies over the past century. Nevertheless, S-23 has not been revised for the past six decades. As a result, the current 3rd edition is often described as being an outdated and ineffective publication, having adverse effects on the reputation of the IHO as a competent international organization.

The Republic of Korea is of the view that the IHO should continue to pursue the revision of S-23 in accordance with the relevant IHO Resolutions, no matter how complicated this might be. This would be in the best interests of the IHO as an authoritative worldwide hydrographic body, which is actively engaged in advancing maritime safety and efficiency.

At the International Hydrographic Conferences (IHCs), frustration has been expressed over the failure of the current S-23 to adequately serve States and international organizations. If the newly-launched IHO Assembly cannot take any action concerning the daunting task to revise it, there would be no choice but to discuss what might ensue. On this note, the Report on Work to revise IHO Publication S-23 (CONF.18/WP.1/Add.1) stated that "Member States must decide whether the current but out of date 3rd edition of S-23, which has not been revised for nearly 60 years [then in 2012], will continue to be an active, but ineffective, IHO reference publication or whether the publication should be discontinued."

Therefore, the Republic of Korea believes that the 1st Session of the IHO Assembly could serve as a valuable opportunity for interested Member States, together with the Secretariat, to discuss the future of the outdated Special Publication S-23.

MEMBER STATES' COMMENTS**BRAZIL:**

We inform that DHN supports that the issue "FUTURE OF S-23" 3rd EDITION – 1953 should be discussed during the first session of International Hydrographic Assembly.

CROATIA:

Croatia has already declared that the problem of IHO publication S-23 is not political but technical issue.

Croatia believes that the publication could be discussed at the 1st Session of the IHO Assembly but the question is what is to be achieved.

ECUADOR:

We have no comments on the submitted proposal that is why we support this issue to be discussed at the IHO Assembly.

FIJI:

Fiji supports PRO 13 and believes that the document is of high importance and that a decision needs to be made. Also at the 5th EIHC in 2014, it was decided that should a member state raise this issue, it could be discussed at the next IHC/Assembly. Fiji also believes that this would be an opportune time to discuss the future of S-23.

MAURITIUS:

Mauritius supports the proposal of Republic of Korea for discussion and revision of IHO Publication S-23 “Limits of the Oceans and Seas” as proposed in Assembly Circular Letter 10bis – 4.

MEXICO:

Although the IHO has a huge workload, there is no reason for the standard publication S-23 to be considered obsolete, therefore the IHO should establish a programme for it to be updated, even if this means on a long term basis, as this is an official referenced document.

PAPUA NEW GUINEA:

See comment related to PRO 1.

RUSSIAN FEDERATION:

Russia does not support discussions on S-23 during the Assembly.

COMMENT OF THE IHO SECRETARIAT

See also PRO 1.