17th MEETING OF THE IHO CAPACITY BUILDING SUB-COMMITTEE IHO-CBSC17 Genoa, Italy, 29-31 May 2019

Paper for Consideration by CBSC17

Review of CB Procedure 9

| Submitted by: | Vice-Chair and Secretary | |
|---------------------------|--|--|
| Executive Summary: | This paper presents the findings during the review process for | |
| | the CB Procedure 9 | |
| Related Documents: | IHO CB Strategy | |
| Related Projects: | XXX | |

1. Introduction / Background

Actions CBSC16/06 and 07 tasked the CB Coordinators, the Vice-Chair and the Secretary to identify areas in the CB Procedure 9 that could be simplified and report back to CBSC17.

2. Analysis/Discussion

There was very limited response from CB Coordinators to this topic. However, the following areas were identified for improvement:

- a) Improvements to the template for the report (Annex A)
- b) Creation of a preliminary questionnaire to be sent to the visited countries (Annex B).

3. Conclusions

The items identify under item 2 have the potential to improve the assessment, the engagement with stakeholders and to respond to the recommendations of the visiting team.

4. Recommendations

To amend Procedure 9 with the two above Annexes.

5. Action Required of CBSC

The CBSC is invited to:

- a. note this report,
- b. approve the proposed changes to Procedure 9, and
- c. take any action as considered appropriate

Template for the **HHB** IHO CB Procedure 9 on Technical Visits





IHO Capacity Building Programme

TECHNICAL VISIT REPORT

The State of Hydrography and Nautical Charting in [Country]

[COUNTRY]

[HYDROGRAPHIC SERVICE]

[LOGO]

[Date : YYYY , Month DD^{xx} – DD^{xx}]

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ABBREVIATIONS

| AtoN | Aids to Navigation |
|--------|--|
| CBSC | IHO Capacity Building Sub-Committee |
| DGPS | Differential Global Positioning System |
| ECDIS | Electronic Chart Display and Information System |
| EEZ | Exclusive Economic Zone |
| ENC | Electronic Navigational Chart |
| FIG | Fédération Internationale des Géomètres (International Federation of Surveyors) |
| GIS | Geographic Information System |
| GMDSS | Global Maritime Distress and Safety System |
| GNSS | Global Navigation Satellite System |
| GPS | Global Positioning System |
| HSSC | IHO Hydrographic Services and Standards Committee |
| IALA | International Association of Marine Aids to Navigation and Lighthouse Authorities |
| IBSC | International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers |
| ICA | International Cartographic Association |
| IHO | International Hydrographic Organization |
| IOC | Intergovernmental Oceanographic Commission |
| IMO | International Maritime Organization |
| IMSAS | IMO Member State Audit Scheme |
| INT | International |
| IRRC | IHO Inter-Regional Coordination Committee |
| LORAN | Long Range Navigation System |
| MS | Member State |
| MSDI | Maritime Spatial Data Infrastructure |
| MSI | Maritime Safety Information |
| NC | Nautical Charts |
| NHS | National Hydrographic Service |
| NHC | National Hydrographic Committee |
| NHCC | National Hydrographic Coordination Committee |
| NtMs | Notice to Mariners |
| PCA | Primary Charting Authority |
| RENC | Regional ENC Coordinating Centre |
| RHC | Regional Hydrographic Commission |
| RNC | Raster Navigational Chart |
| SOLAS | [United Nations] Convention for the Safety of Life at Sea |
| TTW | Territorial Waters |
| UN | United Nations |
| UNCLOS | United Nations Convention on Law of the Sea |
| WMO | World Meteorological Organization |
| UNGGIM | United Nations Global Geospatial Information Management |
| WWNWS | World Wide Navigation Warning Service |

EXECUTIVE SUMMARY [PREAMBLE]

Add a short abstract to highlight the main issues to decisions-makers [RHC's/CBSC/IHO/IMO/IALA].

TECHNICAL VISITS

Give general information on the Technical Visit approval, the composition definition and founding by CB Program. Give information on the previous visits. (Who, What, Where, When, Why and How)

GENERAL AWARENESS IN THE COASTAL STATE

Give general information on the IMO/IHO membership and Country awareness on SOLAS and relevant to hydrography, charting and MSI obligations.

IHO/RHC MEMBERSHIP OF [COASTAL STATE]

Give general and relevant information of the Country position on IHO/RHC (No Member, Observer, Associate Member, Member).

INTERNATIONAL OBLIGATION OF [COASTAL STATE]

Give general information on main responsibility assumption and dependence.

CERTIFIED PERSONNEL

Give general information on certified personnel (hydrographic surveyors, marine cartographers, marine GIS and MSI specialists).

HYDROGRAPHIC SURVEY & NAUTICAL CARTOGRAPHY CAPABILITY

Give general information on hydrographic surveying and nautical documentation production and updating capability.

MSI RESPONSIBILITY

Give general information on MSI responsibility.

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REPORT OF TECHNICAL VISIT TO [Coastal State] [Date : YYYY, Mont DD^{xx} – DD^{xx}]

Reference(s):

- A. [Regional Hydrographic Commission (RHC) Chair's Invitation to National Representatives to meet with the Technical Visit Team.]
- B. [THE NEED OF NATIONAL HYDROGRAPHIC SERVICES IHO PUBLICATION M2 Version 3.0.6 December 2016]
- C. [IHO CBSC PROCEDURE 9: GUIDELINES TO CONDUCT TECHNICAL VISITS]
- D. [IHO CB previous Technical Visit Report]
- E. [IHO CB last Technical Visit Report]
- F. [National Report from Coastal State to last RHC meeting]

[Introduction]

Give a general introduction on IHO activity and the main TV purpose.

1. Background

Refer to RHC Conference proceedings or other regional meetings which have led to the formation of the Technical Visit Team and the shaping of its Terms of Reference. Draw attention to the RHC Chair's invitation to nations in the region to meet with the Technical Visit Team and discuss national plans (Reference A). Note the target date for feedback from the Technical Visit Team. Draw attention to Terms of Reference of the Technical Visit Team at Annex A.

2. Composition of the Team

Note that the RHC Technical Visit Team is comprised by:

| Name | Role |
|---|-------------|
| Title/Rank – Name Surname – Organization – Position | Team Leader |
| Title/Rank – Name Surname – Organization – Position | Assistant |
| Title/Rank – Name Surname – Organization – Position | Assistant |

Administrative and Logistic information on accommodation, flight timetable/schedule, transportation, social events and any other business.

PART A - OVERALL ASSESSMENT OF THE SITUATION IN REGION

3. Efficacy of the Technical Visit.

State whether the visit represented a worthwhile investment by the RHC countries which contributed resources, and make recommendations for any adjustments of terms of reference or work practice for any follow up efforts. Assess the extent to which the visits improved inter visibility between local agencies and brought awareness of the issues, and of the efforts of local coordinators, to Ministerial or Permanent Secretary level. Comment on interest in follow up advice.

4. Cooperative Arrangements and Potential.

Report the Team's views on the potential for regional cooperation, noting those regional organizations to which the nations visited belong.

a. [Regional Organization].

Note any calls made by the Team on Secretariats of regional organizations, assess the influence and interest of the organizations in the sphere of work of the Technical Visit Team, and recommend HHB IHO Secretariat or RHC liaison where appropriate. Report any forthcoming meetings of the organizations, particularly at ministerial level, at which the IHO should seek visibility and influence.

Report any local institutions, particularly training facilities, which are sponsored by the organizations and which might be utilized by RHC members.

b. Regional Organization.

Some Regional Organizations have appointed Regional Maritime Safety Advisers to lobby and advise member states. RHCs should be working closely with them. Where there is no information on such posts in advance of a Study Team Visit, the Leader should make every effort to establish contact and report it.

c. Defence and Security Arrangements.

In many regions there is strong liaison between Navies and Defence Force Coast Guards because of the need for cooperation to combat drug trafficking and other threats. These disciplined forces may have key roles in coordination, especially of Maritime Safety Information (MSI) broadcast and Search and Rescue (SAR) components of GMDSS

PART B – [COUNTRY NAME] ASSESSMENT

5. RHC Involvement.

Note whether the country is an IHO member, and/or a member of the RHC. Note whether it was represented at the most recent Regional Conference, and whether a National Report was available to the RHC Technical Visit Team. Where none of these apply, note whether there is any routine liaison with the HO of a RHC or IHO member nation.

6. Preliminary Liaison.

Record any local assistance with coordination of the visit.

7. Points of Contact.

Confirm the accuracy of details in the IHO Year Book of the local first point of contact for hydrographic and MSI matters. Include changes as an Appendix/Annex. Note any local difficulties in line accountability, and loss of top level awareness and support for the national hydrographic capability, which will be discussed later in the report. Report any changes in local legislation or organization which will result in changes to information published by the IHO.

DESCRIPTION OF MARITIME ACTIVITIES

8. National Maritime Affairs.

Provide a thumb nail sketch of the significance and salient features of the maritime sphere in the country visited. Note any individuals who have been especially helpful in building up this picture.

9. Trade and Maritime Traffic.

Where possible provide statistics on shipping transit and port calls. Describe the main components of sea borne traffic, and the patterns of activity in national waters, under the following headings:

- a. Through Routes. Note any regional through routes which pass through the country's waters.
- b. Tran-shipment. Comment on the existence of any hub ports.
- c. Bulk Trades.

Comment on the significance of this element of international shipping and any impact on port

development plans. Note the existence of refineries and of bulk loading facilities.

- d. Feeder, Coasting and Local Trade. Comment on volume and patterns, and list significant ports, including ferry ports.
- e. Offshore Supply and Support. Comment on significance and on any particular influence on MSI and GMDSS requirements.
- f. Tourism Cruise Liners. List all local ports of call and anchorages.
- g. Tourism Small Craft.

Comment on the significance of leisure cruising, and note major cruising areas and concentrations of marina developments. In some smaller island states this may be the most significant maritime segment of the economy. Establish whether mega-yachts are visiting.

h. Fisheries.

Note the volume and type of fishing in national and adjacent waters. Include both local artisanal and pelagic fisheries, and the presence of foreign vessels.

i. Other information; Note any other information useful in national and adjacent waters.

10. Responsibility for Safety of Navigation.

Record the authority which is responsible for:

- the maintenance of channels,
- removal of wrecks,
- provision and maintenance of Navaids,
- and the promulgation of Notices to Mariners.

Note any difficulties in conducting these tasks e.g. defective buoy tenders.

11. Defence Force Responsibilities.

Note the roles of the Navy/Defence Force Coast Guard (CG). e.g. SAR, fishery protection, and operations to counter traffic in drugs or illegal immigrants. Comment on any specific defence requirement for improved hydrographic data.

12. Coastal Zone Management and Environmental Protection.

Note the existence of any marine National Parks or other management zones, and the existence of any climate monitoring stations.

OUTLINE C 55 ANALYSIS

13. Status of surveys within the National Maritime Zone.

Summarize the status of surveys within the territorial sea and EEZ, and comment on any areas of particular concern in the light of the foregoing description of maritime activities. Make particular note of any coastal areas which are charted purely from lead line surveys. Note any offshore banks or other shoal areas which require side scan sonar coverage to bring the area to full modern standards. Note the need to obtain coordinates for offshore oil and gas fields.

14. Collection and Circulation of Nautical Information.

Assess the effectiveness of this crucial process, based on information from the HO with charting

responsibility as well as the national coordination point. Note any advice which has been given to local authorities, and detail any assistance which is required from the HO with charting responsibility.

15. Survey Capability.

Comment on the state of any local hydrographic service/unit, and draw attention to any supporting documentation in accompanying Attachments e.g. Mission and Output Plan documentation. Summarize the future plans of the unit, and assess the sufficiency of manpower and equipment resources.

16. Independent Chart Production Capability.

Note any charts which are being produced locally, and comment on their standard. Summarize discussion of implementation of the INT chart scheme in the region, noting. local comment on proposals for coverage. Report clearly any local proposals for modification or extension of coverage of INT small scale, large scale and port schemes. Report proposals for local surveys within the area of coverage of proposed new charts.

PROPOSALS FOR COORDINATION AND CAPABILITY BUILDING

17. National Hydrographic Committee.

Note the existence of any high level coordinating bodies, and assess their awareness of the contribution of hydrography to national policy making. State whether the Team has advised creation of a more focused committee, and note any proposals for reporting route and frequency. Note whether the local hydrographic service/unit is making a technical contribution to delimitation, offshore resource exploitation, environmental management, maritime traffic control, or any other areas of National Maritime Policy.

18. Phase 1 Hydrographic Capability: MSI Organization and GMDSS.

Summarize any proposals for improvement of liaison and effective passage of information between national and regional charting agencies. Comment on the requirement for liaison with Transport Ministries or Port Authorities.]

a. MSI (Navigational Warnings).

Note the existence of local navigational warnings and Notices to Mariners and other publications e.g. Lists of Major Navaids, Tide Tables. Comment on their reliability. Comment on discussions with local authorities, and summarize proposals offered for improvement of MSI in national waters.

b. Information on Ports and Harbors.

Comment on discussions with government representatives concerning the legal requirement and economic importance of timely supply of plans and coordinates of new development to responsible charting agencies. Note where the local hydrographic service/unit or port authorities need better top level support in collation and dissemination of this information. Where there is no hydrographic unit comment on the capacity of the Land Survey Department to advise port authorities and other agencies.

c. GMDSS Status.

Summarize the status of GMDSS in local waters, and any advice offered to local authorities (Table 1).

| Master Plan | A1 Area | A2 Area | A3 Area | NAVTEX | SafetyNET | Notes | |
|-------------|---------|---------|---------|--------|-----------|-------|--|
|-------------|---------|---------|---------|--------|-----------|-------|--|

| Yes/No | Yes/No (VHF) | Yes/No (MF) | Yes/No | Yes/No | Yes/No | 1 to 8 |
|--------|-----------------|-------------|--------|--------|--------|--------|
|--------|-----------------|-------------|--------|--------|--------|--------|

Notes:

- 1. Specify any geographic limitations to Area coverage.
- 2. Note NAVTEX Station location, especially when designed for optimum overlap.
- 3. Note where proposals are subject to financial appraisal by the national government.

4. Note where choice of MSI medium is to be subjected to cost analysis, and comment on optimum solution and interim arrangements.

5. Note Team recommendations of negotiation for facility sharing.

6. Specify any firm commitments or local proposals for co ordination.

7. Note where SafetyNET is available and could be used for Coastal Warnings but the state wishes to assess comparative costs of implementing their own NAVTEX Station before adopting this solution.

8. Note where the Team could not establish status of National Plan.]

d. Others Services.

Note any other information useful in national and adjacent waters.

19. Phase 2 Hydrographic Capability: Survey.

Comment on the adequacy of top level support and resourcing for the local hydrographic service/unit. Summarize any proposals which the Team has made for revision of line accountability of the unit. Where there is no local hydrographic unit, comment on the requirement for independent capability.

a. Provision of Survey Data.

Clarify accountability for this task. Note any commitment to pass data to other HOs with INT or primary charting responsibility in the area. List any data which has been passed to the Team for onward transmission.]

b. Survey Capability.

Summarize the Team's judgment of current and potential capability. Comment on advice given by the Team. Identify areas where RHC members could assist by loan of experts or equipment. Note opportunities for regional collaboration.]

c. Potential for Regional Activity.

Comment on volume of work in local waters and remaining capacity to assist other states in the region. Make recommendations on the ability of the hydrographic service/unit to provide technical hydrographic advice to neighboring States. Note any potential for regional burden sharing e.g. DGPS provision.]

20. Phase 3 Hydrographic Capability: Chart Production.

Summarize the Team's judgment on current and potential capability, and on viability of local chart production.

Comment on advice given by the Team.

Assess quality of routine data management, paying particular attention to such measures as assessment of density of sounding coverage and development of capability in plotting bottom contact detail from side scan sonar. Comment on the balance of effort devoted to data collection compared to local production of publications.

21. Table 2 presents the summary of the assessment of the National Hydrographic Capability

 Table 2: Assessment of National Hydrographic Capability.

| IHO | RHC | NHC | Phase 1 | Phase 2 | Phase 3 | Notes |
|--------|-------------------|--------|----------|----------|----------|---------------------|
| Member | | | Capacity | Capacity | Capacity | |
| Yes/No | Member/ | Yes/No | Self/ | Self/ | Self/ | 1, <mark>≩</mark> 6 |
| | Associate Member/ | | Partial/ | Partial/ | Partial/ | |
| | Observer | | No | No | No | |

Notes:

- 1. Inform how the Maritime and Port organizations in the country relate with the national hydrographic authority and or the charting authority.
- 2. Inform whether the Maritime and Port organizations have some survey equipment, and some surveyors trained to IHO standards.
- 3. Note whether it may be possible to generate/regenerate limited field survey capability.
- 4. Note any charts which are produced, together with limitations e.g. suitable for government planning, but not for navigation, particularly in view of lack of correction arrangements.
- 5. Note where RHC advice on equipment management and maintenance is merited.
- 6. Note any assessment of potential to provide field survey services to other states in the region, and recommend scope for RHC consultative support.

PROPOSALS FOR ASSISTANCE

22. Training

Identify training priorities, and comment on advice given by the Team. Note the status of any National Indicative Plan. Comment on response to any assistance offered by **HHB** IHO Secretariat. Summarize proposals for training available from other RHC or IHO member states.]

23. Equipment.

Summarize any advice given for equipment procurement options, or for technical advice. Note where any special conditions (e.g. local topography and disruptive masking of GPS) need to be taken into account.

24. Funding.

Confirm that local authorities are aware of the information in IHO Publication M 2. Note any specific proposals for advice or lobbying by RHC or **HHB** IHO Secretariat. Brief on the role of the IHO CBSC, and the importance of submission of bids through the RHC Chair.

FOLLOW-UP ACTIONS

25. Encouragement of Formation of a NHC, Development of a National Hydrographic Strategy, and RHC Membership.

Summarize recommendations for contacts, or supply of documentation. ACTION: **HHB** IHO Secretariat; RHC Chair.

26. Encouragement of Effective and Timely Collection and Promulgation of Hydrographic Information.

- a. Note any commitment by the Team to forward Hydrographic Notes with urgent MSI. Note where copies are to be supplied to Hydrographic Unit and Maritime Services/Port Authorities to give them a format for subsequent routine communication of updates. ACTION: **Technical Visit Team**.
- b. Note any requirement for MSI/SAR liaison with local authorities. ACTION: NAVAREA

Coordinator.

27. Encouragement of Development of Hydrographic Capability.

Note areas where the Hydrographic Unit merits assistance:

- a. Options for provision of consultative support including temporary secondments. ACTION: **RHC Members**.
- b. Options for transfer or loan of equipment. ACTION: RHC Member States.
- c. Assessment of the case for regional investment in equipment purchase e.g. DGPS. ACTION: **RHC**.
- d. Recommendations for follow up technical assistance in development of a National Indicative Plan for training funding. ACTION: **RHC and IHB** IHO Secretariat.

CONCLUSIONS

28. Co operative Opportunities.

Summarize opportunities for RHC and **HHB** IHO Secretariat to build on any openings which have emerged from the visit, as indicated at paragraph 5. It is particularly important to identify where the RHC can represent the implications of IHO work for higher level regional policy. Draw attention to any specific commitments made by the Technical Visit Team to supply copies of this report or other IHO material.

29. National Hydrographic Committees (NHCs).

Note the incidence of consultative high level committees for maritime affairs in the states visited by the Team, and note any issues which dominate their agendas e.g. environmental monitoring and response to disaster. Report on responsiveness to the concept of a National Hydrographic Committee or equivalent arrangement.]

Recommendations

30. Urgent Actions.

High light urgent actions emerging from the Summary Tables, and identify the Agencies which have important roles to play in advising on specific recommendations in the individual Country Reports.

31. RHC Follow up Actions

List under appropriate headings, noting that details can be found in each individual Country Report e.g.:

- a. Encouragement of NHCs through a Regional Plan. Specify Team recommendations for regional initiatives (e.g. in maximization of equipment resources) and for RHC and HHB IHO Secretariat follow up with local contacts.
- b. Funding. Note requirements for RHC advice in the preparation of National Indicative Plans for funding applications. Specify proposals for bilateral support which merit RHC championship.
- c. Regional and Bilateral Training. Report the potential of training establishments in the region to offer MSI and hydrographic courses, and make proposals for co-ordination and championship by RHC and HHB IHO Secretariat.

32. Follow up Opportunities.

Draw attention to forthcoming openings for follow up actions e.g. TACC meetings.

33. Preparations for Next RHC Conference.

Note specific recommendations for liaison action by the RHC Chair.

- a. Last Technical Visit Assessment
- b. Technical Visit Recommended Actions

| DATE | YYYY, Month DD ^{xx} |
|------------------------------------|------------------------------|
| RHC Technical Visit Team Leader | Title/Rank Name Surname |
| SIGNATURE | |

Annexes ANNEX LIST:

- A. Terms of Reference of the RHC Technical Visit Team.
- B. Summary of Events
- C. Preliminary Agenda
- D. List of Contacts
- E. P5 IHO Year Book Template update
- F. NHS Organization Template
- G. Hydrographic Surveys Coverage
- H. PCA Chart and ENC Coverage
- I. Coastal State Trade and Maritime Traffic
- J. Coastal State report to last RHC meeting

DISTRIBUTION: Chair RHC INFORMATION: **IIIB** IHO Secretariat / visited Coastal State

TERMS OF REFERENCE OF THE RHC TECHNICAL VISIT TEAM

1. The Technical Visit Team, comprising members of the staffs of the Hydrographers of ..., led by ..., are to carry out a visit to the nations which have indicated a willingness to discuss issues of mutual interest in the fields of

Preparation

The members of the Team, under the guidance of the leader and with the assistance of the staffs of the Hydrographers of, are to plan the Team visit having obtained access to material available from each Hydrographic Office, the International Hydrographic Bureau Organisation (HHB IHO Secretariat), [appropriate International Technical Consultative Organisations], and the information supplied by each Nation which is to be visited.

Work Objectives

Note: If the Technical Visit Team has more than one area of activity e.g. MSI and hydrography, separate headings should be used. The following example covers hydrographic work.

- 3. The Team is to:
 - a. obtain access to decision making levels of government in each country visited and liaise with senior officials, emphasising the importance of hydrography to coastal states and, hence, the need to include hydrographic and associated charting activities within National Plans;
 - b. assess the National capacities to plan and execute the collection and rendering of hydrographic data to enable the production of charts and publications both locally and through the supply of data to Hydrographic Offices with international chart folios;
 - c. consider and advise on measures which can be taken to improve the capacity of nations to carry out the above;
 - d. emphasise the basic importance of a national system for the collection of data, such as engineering drawings and local Notices to Mariners, which have an effect on the interests of mariners;
 - e. advise on the assistance to be gained from close liaison with the **HHB** IHO Secretariat, IMO and funding agencies to enable viable and sustainable capability to be maintained.

Report

4. A Report on the activities and recommendations of the Team is to be submitted to the Chair of the RHC by

SUMMARY OF EVENTS

Event Date RHC Technical Visit Team convened for planning meeting at Visit to [Country] T1 Team arrived at T2 a. Calls on, Minister of Transport; T3 b. Meeting at Ministry of Transport with government and non-government agencies concerned with MSI. T4 Discussions with: T5 a, Port Controller; T6 b...., Director, Department of Lands and Surveys; T7 c , Commander ... Defence Force; d...., Ambassador/High Commissioner/Consul, and staff. T8 T9 Team departed from [Country]

Note:

The Summary of Events should list all calls and meetings with significant local contacts. Full details of their titles, addresses, telephone/FAX numbers and E-mail addresses should be supplied to the RHC Chair, and to the **HHB** IHO Secretariat if appropriate.



PRELIMINARY INFORMATION / QUESTIONNAIRE

INTRODUCTION

The purpose of an IHO assessment visit is to consider the status of hydrographic services in the country and advise on how the situation can best be improved so the State can meet its international obligations for hydrography and at the same time contribute to safety of life at sea and protection of the marine environment as well as providing long-term improvements in national infrastructure and economic wealth.

The International Convention on the Safety of Life at Sea (SOLAS) places an obligation under international treaty law for all signatory nations, which includes <u>"Coastal State"</u>, to ensure that appropriate hydrographic services are provided. This means that the government of <u>"Coastal State"</u> is responsible for ensuring that:

- Maritime Safety Information (MSI) is promulgated,
- Hydrographic Surveys are carried out.
- Nautical Charts and other Nautical Publications are prepared and available,
- Nautical Charts and other Nautical Publications are kept up to date,

The United Nations Convention on the Law of the Sea (UNCLOS) and various Resolutions of the UN General Assembly also recognize the importance of hydrography and commit Member States of the UN to recognize their responsibilities for hydrography.

For further information, consult IHO Publication M-2 - *The need for national hydrographic services*, freely available from the Download section of the IHO website (<u>www.iho.int</u>).



To assist in making the technical assessment visit successful, please return the following information to <u>"Names and emails of the Technical Team".:</u>

<u>Head of Delegation: Rank ... Name ... Surname – Organization / Position</u> <u>Email:</u>

Telephone:

Mobile:

Assistant of Delegation: Rank ... Name ... Surname - Organization / Position

<u>Email:</u> Telephone:

Mobile:

If an answer is not known please insert "NK" If the question is not applicable, please insert "NA"

1. Details of the Respondent

- Title or rank:
- Name:
- Organization:
- Geographical Address:
- Postal Address:
- Other contact information (e-mail, fax, etc.):

2. Existing Capability

Are the following hydrographic services provided for your country at present (YES/NO/NK)?

If YES, indicate which organization (or third country) is responsible for the service.

If the service is provided through a third country, indicate if the responsibilities are defined in a formal agreement and provide the relevant references if possible.

- Maritime Safety Information (MSI)?
- Nautical paper charts?
- Electronic Navigational Charts (ENC)?
- Tide Tables?
- Tides / water level measurement?
- Hydrographic Surveys?
- Topography Mapping / Cadastral
- Topographic Surveys
- Inland Waterways

What do you suggest to improve the situation (will then be discussed during the visit)?



3. Which (if any) departments in your country have personnel with competencies in:

- hydrographic surveying
- nautical charting
- geospatial data management
- tides /water level measurement
- topographic surveying and mapping
- digital elevation modeling
- aerial and/or satellite image processing and mapping
- 4. For each category available in your country, what is the general level of skill of the staff, including qualifications and training history?

What do you suggest to improve the situation?

- 5. Is there any equipment / platform (such as ship or aircraft) available in your country for:
 - promulgation of Maritime Safety Information (MSI)?
 - hydrographic surveying?
 - nautical cartography?
 - tidal observations?

What do you suggest to improve the situation?

If applicable and possible, provide details of equipment and software, for example. ships or vessels, echo-sounders; DGPS stations; tide gauges; data acquisition, processing and management software; cartographic / topographic workstations; GIS tools; etc.

6. Existing Programmes

Is there any awareness at the national level of the status of hydrographic surveys and nautical charting as assessed in IHO Publication C-55 (<u>http://www.iho.int/iho_pubs/CB/C-55/index.html</u>)

Are there any national plans in place for developing hydrography and/or management of the coastal zone?

What do you suggest to improve the situation?

7. International Cooperation

Are there any bilateral or regional arrangements in place to assist in the provision of national hydrographic services?

What do you suggest to improve the situation?



8. Institutional Framework

Who are the mapping and research agencies that you think should be involved in the establishment or improvement of hydrographic capacity in your country (provide addresses, points of contact, phone, fax, e-mail)?

- 9. In your country, what are the organizational and administrative structures that look after:
 - maritime transport?
 - inland waterborne transport?
 - mapping?
 - national development and infrastructure?
 - prevention of marine disasters (storms, coastal floods, etc.)?
 - representation at the International Maritime Organization (IMO)?
 - representation at the Intergovernmental Oceanographic Commission (IOC)?
 - representation at the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA)
- 10. In your country, what are the ministries and other national authorities / administrations / institutions potentially concerned with the provision and use of hydrographic services (provide designation, address, phone, fax, e-mail)?
- 11. What do you think is the level of awareness and priority in government and at the higher levels of the administration regarding the importance and value of hydrography to the country?

What do you suggest to improve the situation?

12. Please describe the nature of any interagency cooperation with regard to hydrography, as you understand it.

What do you suggest to improve the situation?

13. In your opinion, who should be, or is, designated by the government as responsible for the proper provision of hydrographic service in your country (position, address, phone, fax, e-mail)?