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HD/1803/III/ROPME/81

All members of RSAHC

08 February 2011

**WORKSHOP ON PORT AND SHALLOW WATER SURVEY**

Reference:

A. Chairman RSAHC letter HD/1803/III/ROPME/201 dated 17 March 2010.

1. In continuation to letter at reference, the input desired on the subject has not been received from the member states. To progress further a draft proposal of workshop on Port and Shallow Water Hydrographic Survey is enclosed in this regard.

2. Chairman RSAHC is requested to include the same for discussion / finalization in the forthcoming meeting.

**MUHAMMAD ARSHAD**  
Captain Pakistan Navy  
Hydrographer  
Chairman RSAHC

Copy to:

The Chairman  
ROPME Sea Area  
Hydrographic Commission (RSAHC)  
Ministry of Transport & Communications  
Dte General Maritime Affairs  
Head Department of Maritime Navigation  
P.O. Box 684, PC 100 – Muscat  
SULTANANT OF OMAN

- w.r.t. nominate also a rep for the Ninth Meeting of the Capacity Building Sub-Committee (CBSC9) planned in May 2011 at Brazil.

The Director  
Captain Hugo GORZIGLIA  
International Hydrographic Organization  
Monaco Cedex  
PRINCIPALITY OF MONACO

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## DRAFT PROPOSAL

### Workshop –Port and Shallow Water Hydrographic Surveys

The subjects are selected for a workshop for the participants having hydrographic experience and rendering services to the Port authorities. The structure is designed in such a manner that at the end of the workshop, the participants are geared up with additional knowledge about the latest trends and techniques in Hydrography and how best they can exploit the same in future.

<u>Day</u>	<u>Subjects</u>	<u>Topics</u>	<u>Details</u>
01	Survey Standards	IHO standards for Hydrographic Surveys	Focused w.r.t. shallow water/harbour surveys <ul style="list-style-type: none"> <li>-Survey Classification</li> <li>-Minimum Standards</li> <li>-Quality Control and Quality Assurance of Data</li> </ul>
02	Survey Planning		<ul style="list-style-type: none"> <li>- Important consideration for Survey Parameters, Scale, Line Spacing, Fix Interval, Survey Speed and Positional Accuracy.</li> <li>- Selection of Survey equipment</li> <li>- Importance of calibration</li> <li>- Preparation of Sounding Block for navigation and data collection</li> <li>- Processing techniques</li> </ul>
02	Survey Systems and Software	Acoustics	<ul style="list-style-type: none"> <li>- Conventional Methods</li> <li>- Single Beam Echo Sounder</li> <li>- Side Scan Sonar</li> <li>- Multi Beam Echo Sounders</li> <li>- Microwave</li> </ul>
		Positioning	<ul style="list-style-type: none"> <li>- Basics and Conventional Techniques (Sextants, Theodolites, Transit etc.</li> <li>- GPS and DGPS</li> <li>- GPS Kinematics</li> <li>- Satellite base DGPS System</li> <li>- Microwave Positioning System</li> <li>- Setting up of Position and vertical control</li> <li>-Basics of GPS positioning and Geodetic station</li> <li>- Balancing of Network</li> </ul>
		Tide and Vertical Datum	<ul style="list-style-type: none"> <li>- Tide Pole</li> <li>- Tide Gauge</li> <li>- GPS (RTK) based Vertical Control</li> <li>-Introduction to tidal prediction</li> </ul>
		Software	<ul style="list-style-type: none"> <li>- Latest Software for Collection and processing of Data and Data presentations</li> </ul>

03	Preparation of Fair Sheet	Survey To Fair Sheet	<ul style="list-style-type: none"> <li>- Grid/Graticules</li> <li>- Bathymetric Data</li> <li>- Topographic Data</li> <li>- Tidal Data</li> <li>- Title <ul style="list-style-type: none"> <li>• Area</li> <li>• Scale</li> <li>• Datum</li> <li>• Projection</li> <li>• Job ID</li> <li>• Date</li> </ul> </li> </ul>
	Preparation of Survey Report		<ul style="list-style-type: none"> <li>- Overview/Introduction</li> <li>- Geodetic Control</li> <li>- Surveying System Employed</li> <li>- Bathymetry of the Area</li> <li>- Horizontal/Vertical Control</li> <li>- Tidal Data</li> <li>- Wreck/Obstructions</li> <li>- NAVAIDS</li> <li>- Miscellaneous</li> </ul>
	ENCs		<ul style="list-style-type: none"> <li>- Description of Electronic Navigational Charts (ENC), and Electronic Chart Display and Information Systems (ECDIS) (Concepts, Components, Impact on Hydrography)</li> <li>- Standards Concerning ENCs</li> </ul>
04&05	Practical Shallow Water Survey	Field Exercise and Practical Aspects of Surveying in Restricted Water	<ul style="list-style-type: none"> <li>- Preparation, Planning, collection and Processing of Data.</li> <li>- Preparation of Fair Sheet</li> </ul>
			Boat Handling / Safety precautions in Harbour / Shallow waters