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**DEFICIENCIES IN HYDROGRAPHIC SURVEYING AND NAUTICAL CHARTING
WORLDWIDE AND THEIR IMPACT ON SAFETY OF NAVIGATION AND
PROTECTION OF THE MARINE ENVIRONMENT**

1 The Maritime Safety Committee, at its eightieth session (11 to 20 May 2005), in response to a proposal from the International Hydrographic Organization (IHO) for the issuance of an MSC circular, approved the note set out in the annex. The note indicates deficiencies world-wide in the provision of hydrographic services in accordance with SOLAS regulation V/9.

2 Member Governments, Parties to SOLAS' 74 as amended, are reminded of their obligations under the Provisions of regulation V/9 and are urged to take actions to remedy the situation.

3 Member Governments are invited to bring the attached annex to the attention of their national authorities responsible for Hydrography, Nautical Cartography and Safety of Navigation, as well as of other appropriate parties.

ANNEX**NOTE FROM THE IHO TO ALL COASTAL STATES****THE STATUS OF HYDROGRAPHIC SURVEYING AND NAUTICAL CHARTING
WORLDWIDE AND ITS IMPACT ON THE SAFETY OF NAVIGATION.****A Responsibilities of Coastal States**

Nautical charts were, are and will remain the most important aid to safe navigation. SOLAS regulation V/2, paragraph 2, defines nautical charts and nautical publications. It should be noted that the accuracy of a chart depends on the accuracy of the hydrographic surveys from which the chart is derived. The better the hydrographic surveys, the more accurate the chart and the safer navigation will be. SOLAS regulation V/9 sets out the responsibility of the Contracting Governments to execute the necessary hydrographic surveys, produce the appropriate nautical charts, in accordance with the IHO Standards, and to update them regularly.

The United Nations General Assembly in 1998, the International Year of the Oceans, adopted Resolution A/RES/54/33 and in 2003 Resolution A/RES/58/240 emphasizing the importance of State action to execute hydrographic surveys and produce nautical charts for safety of navigation. Recent events in the Indian Ocean have also underlined the significance of good information on bathymetry and coastal configuration when planning for research, simulation warning and protection against seismic sea waves and other impact. IMO resolution A.958(23) and MSC/Circ.1118 are also very relevant to this issue. In order to fulfil these obligations, which are binding under international law, contracting Governments to SOLAS need to establish appropriate arrangements for the execution of hydrographic surveys, the production of nautical charts and their routine update.

B Status of hydrographic surveying and nautical charting world-wide

The IHO maintains a digital database, which is continuously updated, of the status of surveying, charting and promulgation of navigational warnings and chart updates. It is called S-55, and it can be found on the IHO website (www.iho.shom.fr). It covers 80% of the coastal waters of the world, and efforts continue to obtain the missing data from the countries concerned. The database highlights significant deficiencies, world-wide, in the provision of hydrographic services. In 45% of the coastal waters of the world less than a quarter of the area within the 200 m contour has been surveyed to modern standards. This is the case in half of those states in Central America and the Caribbean, West and Southern Africa and the Indian Ocean, and 85% of those in the South West Pacific.

No progress has been made in a number of areas of particularly high concern, which were highlighted in the first edition of S-55 in 1991. These areas include the coastal waters of the Niger delta and areas of the South China and Java Seas. The lack of modern surveys is hampering the production of modern metric paper charts on WGS 84 datum, let alone the ENC's required for ECDIS-fitted ships. In addition, even in some areas where modern surveys are available, the production of ENC's has been slow. Finally, and most significantly, many paper and electronic navigational charts cannot be updated because some maritime administrations have not yet put in place appropriate provision for MSI/GMDSS. The regions of greatest deficiency are

the Caribbean, Africa, and oceanic areas, where GMDSS has been fully implemented for less than 15% of coastal states and sea areas. A particular concern is the lack of information on offshore installations in such areas as the Gulf of Guinea.

C Action Required

Considering that:

- Safety of navigation and protection of the marine environment are at risk because of significant deficiencies in surveys on major shipping routes and the lack of modern surveys and new charts, including ENCs, in the coastal waters of many maritime States;
- Many Contracting Governments to SOLAS need to establish Hydrographic Services in order to fulfil their obligations for surveying, charting and updating as specified in SOLAS chapter V;
- IHO Special Publication 55 "Status of hydrographic surveying and nautical charting worldwide" (www.iho.shom.fr) provides important information and data which can be used by governments to initiate the procedures necessary to undertake these obligations;
- United Nations Assembly Resolution A/58/240 invites the IMO and the IHO to continue their co-ordinated efforts to improve surveying and chart coverage worldwide;
- The IHO, which is recognized by UNCLOS as the competent international organization for hydrographic matters, can provide Capacity Building support to assist any State to establish or enhance its hydrographic services;

the IHO urges States to undertake the necessary actions to: establish/enhance their hydrographic services, execute hydrographic surveys, publish and maintain nautical paper charts, electronic charts and publications, and issue Maritime Safety Information (MSI) under the provisions of the GMDSS.

United Nations Assembly Resolution A/58/240 also encourages states to join the IHO and to benefit from the co-ordination which it provides. The International Hydrographic Bureau (info@ihb.mc) can provide the necessary information on procedures for membership of the organization and/or Regional Hydrographic Commissions.

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