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IMO/IHO HARMONIZATION GROUP ON
DATA MODELLING
Agenda item 5

HGDM 1/5/4
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DEVELOPMENT OF A DEFINITION FOR MSPs AND CONSIDERATION FOR THE HARMONIZATION OF THE FORMAT AND STRUCTURE OF MSPs

Commenting on documents HGDM 1/5, HGDM 1/5/1 and HGDM 1/5/2 -
Sea areas of implementation for MSPs

Submitted by France

SUMMARY

**Executive
summary:**

This document comments on the proposals made in documents HGDM 1/5, HGDM 1/5/1 and HGDM 1/5/2 and, in particular, on the sea areas of MSPs as contained in the e-navigation strategic implementation plan. Instead of the 6 sea areas proposed in the SIP and in the aforementioned documents, GMDSS sea areas seem more appropriate to implement MSPs and provide for consistency by linking the e-navigation implementation and the modernization of GMDSS

Action to be taken:

Paragraph 10

**Related
documents:**

NCSR 1/28, annex 7; NCSR 4/29, annex 11; IMO/IHO HGDM 1/5;
IMO/IHO HGDM 1/5/1 and IMO/IHO HGDM 1/5/2

INTRODUCTION

1 This document is submitted in accordance with paragraph 6.12.5 of the *Guidelines on the organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5). The document provides comments on the sea areas of implementation for MSPs that cover the different inputs to the HGDM as well as the e-navigation strategic implementation plan, as set out in documents HGDM 1/5, HGDM 1/5/1 and HGDM 1/5/2.

2 The e-navigation strategy implementation plan (SIP) (NCSR 1/28, annex 7) adopted by the MSC 94 in 2014 and the different documents submitted to the IMO/IHO Harmonization Group on Data Modelling represent an important work towards the digitalisation of radiocommunications in the marine frequency bands. Harmonization and clarification for users are necessary considering the studies, testbeds and work carried out on e-navigation.

3 At the same time, IMO has embarked on the modernizing the Global Maritime Distress and Safety System (GMDSS). The overarching consideration of the GMDSS modernization plan, adopted at MSC 98 (NCSR 4/29, annex 11), stipulates that the GMDSS modernization project should continue to support the needs of the e-navigation strategy. However, there has been no clear link between the ongoing work on e-navigation and the modernization of GMDSS so far.

4 ITU worked already on different digital communication systems such as NAVDAT and VDES, and is preparing NAVDAT HF. The modernization plan of GMDSS (NCSR 4/29, annex 11) was approved by MSC 98 and includes different digital communication systems, but IMO has not yet agreed of including any digital communication system under the GMDSS. Meanwhile, the Member States have concurred to retain the digit-selecting calling (DSC) in the GMDSS, as well as to keep approximatively the same GMDSS sea areas.

5 DSC is an integral part of the GMDSS and is used for transmitting distress alerts from ships and for transmitting the associated acknowledgements from coast stations. Various types of DSC calls are available, being broadly either distress- and safety-related calls or "commercial" calls to indicate that a commercial communication, e.g. a telephony or telegraphy call, etc. is required. Automatic connection to the public network can also be establish through suitable equipped coast stations. The different GMDSS sea areas are based on the DSC technology on different frequency bands: sea area A1 for VHF, sea area A2 for MF and sea area A4 for HF. The sea area A3 has been defined for satellite radiocommunication coverage as a complementary coverage of terrestrial radiocommunication systems.

DISCUSSION

6 Justification should be provided for the introduction of the six e-navigation areas for the delivery of MSPs in the SIP. Is it to specify the geographical areas where a type of MSP should be provided (e.g. where to set up a VTS) or does it refer to the coverage capacities of the radiocommunication systems to cover the service area of the MSP? In the first case, the characteristics of the e-navigation areas are described accurately in the IMO documents prescribing the services (e.g. SAR services, NAVAREA coordinator, METAREA coordinator, MAS, TMAS, VTS) and sometimes they merge with the coverage area of a radiocommunication system. In the second case (radiocommunication coverage), it appears to be more appropriate for radiocommunication systems to be harmonized with GMDSS sea areas as e-navigation radiocommunication systems should be coherent with the GMDSS currently in force and after modernization. The six areas for the delivery of MSPs are not defined in the SIP. Moreover, the terminology used for these six sea areas is confusing:

- 6.1 *Port areas and approaches*: depending of the organization of the State, a port area including its approaches may cover a large area covering inland waterways and beyond the territorial waters;
- 6.2 *Coastal waters and confined or restricted areas*: the terminology of coastal waters is very broad and may include an area of up to 200 NM, for example in respect to coastal navigational warnings. The term "confined or restricted areas" can be interpreted very differently, depending of the context. For instance, "confined or restricted areas" may be the result of construction at sea for an offshore wind farm (OWF) or a cable lying operation. Hence, it could be a temporary situation for a "confined or restricted area";

- 6.3 *Open sea and open areas*: as mentioned above, approaches to a port may be in open sea, as well as "confined or restricted areas". Note the expression "Open water" used in the Polar Code means a large area of freely navigable water in which sea ice is present in concentrations less than 1/10;
- 6.4 *Areas with offshore and/or infrastructure developments*: these areas may be designated for port areas and approaches as well as in the open sea. This is particularly the case with offshore renewable energy installations (OREI) currently under development;
- 6.5 *Polar areas*: SOLAS regulation XIV/1.2 defines Antarctic area and SOLAS regulation XIV/1.3 defines Arctic waters. The coverage of geostationary satellites of Inmarsat generates the present GMDSS sea area A3; which extends to approximately 76° N and 76° S and do not cover polar areas beyond these latitudes. Hence, there is no clear definition of polar areas; and
- 6.6 *Other remote areas*: IMO used the expression "remote areas" to define an area where there may be difficulties in completing search and rescue operations because sufficient SAR facilities are not ordinarily available. In that respect, "Polar areas" or "open sea and open areas" are in many cases remote areas in relation to SAR facilities.

7 It appears more relevant to address sea areas to implement MSPs in terms of radiocommunication systems. Moreover, the modernization of GMDSS proposed no great change in the definitions of these areas:

- 7.1 'Sea area A1' means an area within the radiotelephone coverage of at least one VHF coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government;
- 7.2 'Sea area A2' means an area, excluding sea area A1, within the radiotelephone coverage of at least one MF coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government;
- 7.3 'Sea area A3' means an area, excluding sea areas A1 and A2, within the coverage of a recognized mobile satellite communication service supported by the ship earth station carried on board in which continuous alerting is available; and
- 7.4 'Sea area A4' means an area outside of sea areas A1, A2 and A3.

8 There is consistency to refer to GMDSS sea areas for the implementation of MSPs. The GMDSS sea areas defines the frequency band on which digital information could be provided: VHF, MF, satellite bands and HF. GMDSS sea areas are also very well known by users, in addition they depend of the radiocommunication shore-based infrastructures and not of the activities in the areas. Whatever the GMDSS sea areas there will be frequencies to deliver digital information on the appropriate systems, e.g. VDES on sea area A1, NAVDAT on sea area A2, VDES SAT on sea area A3 and NAVDAT HF on sea area A4.

CONCLUSION

9 We can use GMDSS sea areas for the implementation of MSPs.

ACTION REQUESTED OF THE HGDM

10 The HGDM is invited to consider the above comments and proposal provided in paragraph 9.
