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| WEATHER CLIMATE WATER | **World Meteorological Organization****COMMISSION FOR WEATHER, CLIMATE, WATER AND RELATED ENVIRONMENTAL SERVICES AND APPLICATIONS****Second Session**17 to 21 October 2022, Geneva | **SERCOM-2/Doc. 5.8(1)** |
| Submitted by:Chair17.X.2022**APPROVED** |

*[All Amendments in the document have been made by United Kingdom, P/SERCOM.]*

**AGENDA ITEM 5: TECHNICAL REGULATIONS AND OTHER TECHNICAL MATTERS**

**AGENDA ITEM 5.8: Marine meteorological and oceanographic services**

## Marine Environmental Emergency Response and Search and Rescue

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# DRAFT DECISION

## Draft Decision 5.8(1)/1 (SERCOM-2)

### Preparation of guidance material to Marine Emergency Response (MER)

**The Commission for Weather, Climate, Water and Related Environmental Services and Applications decides:**

1. To request the Standing Committee on Marine Meteorological and Oceanographic Services (SC-MMO) to arrange for the preparation of guidance material to Marine Emergency Response (MER), including meteorological and oceanographic guidance for both environmental emergencies and Search and Rescue operations, as outlined in the annex to this draft Decision, and bearing in mind the advice regarding services in support of SAR which are included in WMO-No. 558;
2. To invite the Commission for Observation, Infrastructure and Information Systems (INFCOM) to support the preparation of the guidance material, taking into account its leadership and experience in nuclear and non-nuclear atmospheric environmental emergency responses;
3. To request the WMO Secretariat to provide assistance for the preparation of guidance material and advice on marine emergency response good practices in consultation with the Chair of SERCOM Standing Committee on Marine Meteorological and Oceanographic Services, chairs of the relevant INFCOM Standing Committees, and other bodies and organizations, including the International Maritime Organization (IMO), the International Atomic Energy Agency (IAEA) and others, as appropriate.

See the [annex](#_Annex_1_to) to the present decision and [SERCOM-2/INF. 5.8(1)](https://meetings.wmo.int/SERCOM-2/InformationDocuments/Forms/AllItems.aspx) for more information.

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Decision justification:

(1) [Resolution 26 (EC-64)](https://library.wmo.int/doc_num.php?explnum_id=5103#page=156) – Amendments to the Technical Regulations, wherein the WMO Executive Council instructed that preparation, and ongoing review and revision of WMO Technical Regulations should be carried out by relevant technical commissions;

(2) [Resolution 4 (EC-72)](https://library.wmo.int/doc_num.php?explnum_id=10504#page=17) - Strengthening Marine Services;

(3) The International Convention for the Prevention of Pollution from Ships (MARPOL) (MARPOL), 1973, and subsequent Protocols and amendments;

(4) United Nations Convention on the Carriage of Goods by Sea (Hamburg Rules), 1978 and subsequent Protocols and amendments;

(5) The International Convention for the Safety of Life at Sea (SOLAS), 1974, and subsequent Protocols and amendments;

(6) The preparation and provision of meteorological and oceanographic support in MER operations under the framework of the MARPOL and SOLAS Conventions, and Hamburg Rules, is the responsibility of National Meteorological and Hydrological Services and/or oceanographic agencies in many countries;

(7) SC-MMO has built on the work of the former WMO Commission for Marine Meteorology (CMM) and the former Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM), through finalization of a technical document [Ref. to the [SERCOM-2/INF 5.8 (1)](https://meetings.wmo.int/SERCOM-2/InformationDocuments/Forms/AllItems.aspx)] that reviews the current status of MER, and its relevance to NMHS, and WMO, while considering a strategy for consolidating and enlarging the international framework from Marine Pollution Emergency Response Support System (MPERSS) to become a MER framework, that would include oil spills, radionuclide releases and drifting objects (including Search and Rescue), in coordination with other agencies such as the IMO, IHO and the IAEA; and in coordination with the WMO’s Global Data-processing and Forecasting System (GDPFS).

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[Annex: 1](#annex)

## Annex to draft Decision 5.8(1)/1 (SERCOM-2)

## Guidance for Marine Emergency Response

PROPOSED DRAFT TABLE OF CONTENTS
(to be refined during the process of development of the Guidance document)

**1.** **Introduction and General Considerations**

1.1 Overview of the Marine Emergency Response (MER)

1.1.1 Marine Environment Emergency Response (MEER)

1.1.2 Search and Rescue (SAR) operations

1.2 International Conventions

1.3 Preparedness, Detection and Response – Global and International Frameworks

1.4 International and National (User) Requirements

1.5 Structure of this Guidance

**2.** **The transport and fate of substances and objects in/on the marine environment**

2.1 Environmental forces on drifting objects

2.2 Advection

2.3 Dispersion and diffusion

2.4 Spreading

(…)

**3.** **Detection and Monitoring**

3.1 Visual methods (in situ)

3.2 Remote Sensing

3.2.1 Passive Sensors

3.2.2 Active Sensors

**4.** **Modelling**

4.1 Forcing Data

4.1.1 Meteorological Data

4.2.2 Oceanographic Data

4.2.3 Wave Data

4.2 Basic Drift Modelling (common aspects to oil spills, SAR, and radionuclides)

4.3 Specific Functionalities

4.3.1 Oil spill

4.3.2 Drifting objects, including SAR

4.3.3 Radionuclide release

**5.** **Review of Existing Capabilities**

5.1 Detection and Monitoring

5.2 Operational Models

5.3 Data distribution

Appendix I – References

Appendix II – Acronyms

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