SFSCG

Item 5.3: ETMEER Update

Giovanni Coppini

Euro-Mediterranean Centre on Climate Change - CMCC
Expert Team on Marine Environmental Emergency Response

JCOMM Services and Forecasting Systems Coordination Group

22-24 August 2018, Geneva, Switzerland
Expert Team Overview

- experts with their countries and affiliations

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- No formal interactions yet
Key elements of Terms of Reference

From the SFSPA vision:

• Creating an ET-MEER support, to provide a more stable framework in this area, enabling a more integrated approach to this, working with the Commission for Basic Systems (CBS) concerning the Emergency Response Activities (ERA) programme, and other agencies, such as IAEA and IMO as appropriate. This team needs to review the Marine Pollution Response Support System for the high seas (mperss), including its website.

From the ToR:

• At the 4th session of the Joint WMO–IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM-4, May 2012), Members / Member States agreed that JCOMM should establish a Global Data-processing and Forecast System (GDPFS) to support Members /Member States to respond to marine environmental emergencies. This should include supporting responsible centres to extend their technical capabilities, exchange diagnostic and forecast data, as well as provide enhanced coordination for services and information provision in a way that meets requirements as defined by the International Atomic Energy Agency (IAEA) and International Maritime Organization (IMO).
The ToR

• In supporting marine environmental emergency response, the ETMEER shall:
  – a) Monitor implementation and operations of Global Data-processing Forecasting System (GDPFS) Specialized Centres for MEER; establish or maintain standards for information products, and review the Marine Pollution Support System for the High Seas (MPERSS) including its website;
  – b) Develop technical advice and guidance material on MEER information services and data processing and forecasting systems;
The ToR

• In supporting marine environmental emergency response, the ETMEER shall:
  – c) Monitor requirements by ensuring feedback from the user communities is obtained through appropriate and organized channels and applied to improve the relevance, effectiveness and quality of services (consistent with MARPOL, and other international conventions);
  – d) Liaise closely with and gather input from technical commission expert teams on all aspects of winds, sea ice, sea state, storm surge and ocean circulation relevant to the operation and improvement of maritime accident emergency support;
The ToR

• In supporting marine environmental emergency response, the ETMEER shall:
  – E) Provide advice to the Services and Forecasting Systems Coordination Group and other JCOMMM groups, as required, on issues related to marine environmental emergency response support;
  – f) Continue to liaise closely with relevant groups and teams of organizations, such as IMO, IAEA, etc., to coordinate and improve marine environmental emergency response support; in particular, to also liaise with regional bodies and groups involved in marine environmental emergency response tasks in regions such as the Mediterranean, Caribbean, Polar areas, etc.
Oil spill forecasting system

Input module:
- Ocean forcing data: currents, temperature, salinity, ...
- Atmospheric forcing data: winds, air temperature, ...
- Wave forcing data: height, direction, Stokes drift, ...

Spill initialization data: location, time, oil type, oil amount, ...

Oil drift model

Output module:
- Data distribution
- Data visualization

Model output

Data archiving
Outcome from previous Task Team

DRAFT

PROPOSAL ON FUTURE JCOMM ACTIVITIES IN MARINE ENVIRONMENTAL EMERGENCY RESPONSES (MEER)

For Submission to JCOMM MAN-13, December 2016

By the TASK TEAM ON JCOMM COORDINATION FOR MARINE ENVIRONMENTAL EMERGENCY RESPONSES (TT-MEER):

Nick Ashton (UK) - Leader
Bruce Hackett (Norway)
Giovanni Coppini (Italy)
Pierre Daniel (France)
Yoshiaki Kanno (Japan)
Neal Moodie (Australia) - Chair ETMSS

WMO Secretariat Support: Sarah Grimes, Adriana Oskarsson
Report outcomes

• Report on the main areas of work in which JCOMM collaborates to provide support to a variety of agencies in the event of marine environmental emergencies.

• The support is provided for a number of different types of emergency, ranging from spills of oil and other harmful & noxious substances, radionuclides and support to Search & Rescue (SAR) activities; this, in itself, adds complexity to any framework for support, since all of these emergencies are managed, globally, within differing frameworks. SAR, for example, is managed within IMO through a number of Search & rescue “regions” (SRRs), whilst oil & HNS pollution are largely managed at national level.
Report outcomes

- The initial framework for responding through JCOMM involved the setting up of a network of response centres within areas aligned to the METAREAS within the GMDSS for the provision of maritime safety information; it is far from clear that this framework would be the most effective in providing support to marine environmental emergencies.

- It is necessary to decide whether JCOMM needs to develop separate, global, frameworks for each type of emergency, to align with the responder network, or if a single framework could be adopted which attempts to encompass all systems.
Report outcomes

• In order to provide a more efficient and effective response network, it is suggested that any WMO/JCOMM framework might be based on modelling capability and capacity, with a limited number of centres having a global responsibility based on a global capability for modelling all environmental incident types; beyond this, a larger number of centres may be responsible for specific basins, with any basin currently lacking capability having opportunity for this to be enhanced by the “global” centres.

• At an operational scale, it is considered appropriate that, as far as radionuclide response is concerned, these “high level” centres would be in the best position to provide a response to IAEA, whilst for many other emergency types, the basin level centres would be in a position to respond to the regional response bodies, such as REMPEC.
Report outcomes

- It will be necessary to accept that there will need to be much closer engagement with these bodies generally, although in the case of IAEA in particular, this may be facilitated by working closely with other areas of WMO which already have an efficient working relationship with them.

- At basin level, the appropriate response centres will need to foster relationships with the response bodies. In some cases, such as REMPEC, this may already exist, but with other bodies it may be necessary to work with IMO to make and foster these relationships.
Upcoming Activities/Goals
Main ETMEER activities for the next two years

1. Coordination/Organization/URD
   • Monitor GDPFS Specialized Centres for MEER;
   • Monitor requirements by ensuring feedback from the user communities
   • liaise with regional bodies and groups involved in marine environmental emergency response tasks in regions such as the Mediterranean, Caribbean, Polar areas

2. Procedures and manuals
   • Establish and maintain standards for information products,
   • Develop technical advice and guidance material on MEER information services and data processing and forecasting systems

3. Communication, outreach and services
   • Review the Marine Pollution Support System for the High Seas (MPERSS) including its website;

4. Internal JCOMM interaction
   • Provide advice to the Services and Forecasting Systems Coordination Group and other JCOMM groups,
Upcoming Activities/Goals

To be attainable in during 2018-2019

• Finalise and publish the report from previous TTMEER and share it with expert team (September 2018)
• Provide educational information about the specific expert team topic. (September 2018)
• organize an introductory team web meeting (October 2018).
  — Key anticipated outcomes include the introduction of each ET; the agreement on key actions of 2018-2019; the organization of sub-groups for specific reports preparation with schedule of activities; the agreement of the organization of key meetings with IMO, IAEA and liaise with regional bodies and groups
• Scheduling regular video meetings. (One per month)
• Organize the first ETMEER meeting by early 2019
  • Key anticipated outcomes include: definition of requirements by users; report on status of implementation on ETMEER main activities; plan of actions for 2019-2020
Challenges and Opportunities

• **Challenges**
  • To start the new ET with such diverse team of expertise
  • To analyse and meet the users requirements
  • to standardize and organize a community that is often organize at national level for marine environmental emergencies

• **Opportunities**
  • Capitalize on the important work done in JCOMM IV period by the task team
  • Proven capacity of the group of getting connected both with research community and with operational centers