Input paper: DTEC5-6.2.1.3

Input paper for the following Committee(s): check as appropriate Purpose of paper:

**□** ARM **□** ENG **□** PAP **X** Input

X DTEC **□** VTS **□** Information

Agenda item 6.2

Technical Domain / Task Number 2 …………………………………

Author(s) / Submitter(s) CDR. Kinji TAKEUCHI and CDR. Masatora Ono Japan Coast Guard (JCG)

Contribution to the development of a new Product Specification on disaster management

# Summary

This document provides a model of VTS disaster management operations in Unified Modelling Languages (UML). It aims to contribute to the new S-100 Product Specification for Disaster Management by showcasing use cases for tsunamis and severe weather conditions.

## Purpose of the document

This document is intended to present the disaster management operations in order to support the development of the new S-100 Product Specification for Disaster Management. This document also provides an example of disaster management operations by using Unified Modelling Languages (UML). Additionally, the Japan Coast Guard wishes to inform the Committee of its intention to contribute to future sessions on this subject.

## Related documents

* IMO SN.1/Circ.289 Guidance on the use of Application Specific Messages.
* NCSR 10/6/1 Development of amendments to SOLAS chapters IV and V and performance standards and guidelines to introduce VHF Data Exchange System (VDES)
* DTEC1-5.1.3.9 Proposal on the work for the implementation of ASM
* DTEC2-5.2.1.1 Proposal for the development of a PS on ASM for disaster management
* DTEC3-5.2.1.2 Product Specification on Disaster Management
* DTEC4-6.2.0.5 A contribution to the development of a new PS for disaster management
* VTS55-7.2.2 Input paper on disaster management JCG
* IHO S-100 and IALA S-200 Series Product Specifications
* IHO S-97 Guidelines for Creating S-100 Product Specifications

# Background and discussion

During the 2nd DTEC meeting in 2024, the development of a new S-100 Product Specification of Application Specific Messages for Disaster Management was approved as a new task. The Committee invites interested parties to provide input to DTEC3 for further discussions. These discussions will cover topics such as:

* Data model for the service and data exchange;
* Use cases;
* Serialization and compression of the data;
* Data transportation methods;

In alignment with the development process described in the IHO S-98 Part B guidelines for developing S-100 Product Specifications, and to facilitate discussions on data model and use cases, the Japan Coast Guard has modeled its disaster management operations using activity diagrams. This includes use cases for disaster management operations in Japan, focusing on earthquakes/tsunamis and stormy weather conditions. Those models have been shown in DTEC3 and DTEC4.

In DTEC4, it was concluded that the model elaborated by Japan is too focused on the cases specific to Japan. And the committee requested Japan to develop a disaster management model that can be universally applicable. In response to the request from the committee, the Japan Coast Guard re-designed the disaster management model based on the work in the VTS committee to revise the Guideline G1141: the model has been attached as an annex to this document.

Furthermore, the Japan Coast Guard is pleased to inform the Committee that it is developing an example data model for disaster management operations. These models will be submitted for review and discussion in future Committee sessions.

# Action requested of the Committee

The Committee is requested to:

1. consider the use case of disaster management in its discussions;
2. encourage participants to submit use cases for further discussions.