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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 …………………………………

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A contribution to the development of a new Product Specification on Application Specific Messages (ASM) for disaster management

# Summary

This document provides insights into disaster management operations in Japan using Universal Modelling Languages (UML). It aims to contribute to the new S-100 Product Specification of Application Specific Messages for Disaster Management by showcasing use cases for earthquakes, tsunamis, and severe weather conditions in Japan.

## Purpose of the document

This document is intended to present the disaster management operations in Japan in order to facilitate the new S-100 Product Specification of Application Specific Messages for Disaster Management. This document also provides an example of disaster management operations in Japan by using Universal 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
* 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;
* Uses case;
* 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 modelled 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.

In DTEC3, there was a comment pointing out that IHO S-124 for Navigational Warnings may be satisfied with the contents of the potential new S-100 Product Specifications. However, the main focus of this task is VTS operations although there are some overlaps of information between navigational warnings and VTS operations. In order to better understand the JCG’s proposal at DTEC3, this document explain the disaster management operation by using the presentation at VTS54 by the JCG.

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 Japan in its discussions;
2. encourage participants to submit use cases for further discussions.