Input paper: [[1]](#footnote-1) VTS49-9.3.4

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

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

**□**ENAV **X** VTS **□** Information

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Technical Domain / Task Number2 2.3.1

Author(s) / Submitter(s) China Maritime Safety Administration

Proposal on the Draft of VTS Product Specification (v0.6.0)

# Summary

IALA VTS Task Plan 2018-2022 raises the task “Develop a Product Specification under the S-100 framework for VTS”(Task2.3.1).Analysis on the “*VTS48-9.3.1 WP VTS product specification v060”,*“*IHO S-100 IHO Universal Hydrographic Data Model”*, draft on Guidelines for Vessel Traffic Services[IMO Resolution A.857(20)],“*Initial Descriptions of Maritime Services in the Context of E-navigation*”(IMO MSC.1/Circ.1610) and *“VTS48-8.2.2 WP Draft Guideline on Maritime Services (VTS47-13.3.10”*，this input paper provides some proposals to optimize the draft of VTS Product Specification(v0.6.0)。

**1.1 Purpose of the document**

The purpose of this paper is to provide input paper for the consideration of the VTS Committee in developing the Product Specification under the S-100 framework for VTS (Task2.3.1).

## Related documents

The relevant documents of this proposal are as follows：

IALA VTS48-7.1 VTS Task Plan 2018-2022 20191010

IHO S-100 IHO Universal Hydrographic Data Model, Edition 4.0.0 (December 2018)

IHO S-100WG5-4.16 Proposal to Add S-100 Compliance Categories

IMO Resolution A.857(20) Guidelines for Vessel Traffic Services（Draft，NCSR 7）

IMO MSC.1/Circ.1610 Initial Descriptions of Maritime Services in the context of e-navigation（14 June 2019）

IALA VTS48-8.2.2 WP Draft Guideline on Maritime Services (VTS47-13.3.10)

IALA VTS 48-9.3.1 WP VTS Product Specification v060 (VTS47-13.3.2)

# background

The backgrounds of this proposal are as follows:

1. The VTS Task Plan 2018-2022 raises the task “Develop a Product Specification under the S-100 framework for VTS”，and states that the expected outcome of this task is a VTS Product Specification authorities to better implement VTS.

2. As known,“*IHO S-100 IHO Universal Hydrographic Data Model”* and “*Guidelines for Vessel Traffic Services* ”are under revision, drafts are available.IMO implemented *“Initial Descriptions of Maritime Services in the Context of E-navigation”*,and defined sixteen kinds of Maritime Services.IALA VTS Committee is working on *“Guideline on Maritime Services”*, data required by the VTS service has been combed out,and a draft with information requirements is available.At the same time, IALA also developing the "Guideline on the Portrayal of VTS Information and Data", but it has not sorted out the requirements of the portrayal of information ashore and the presentation of information on board.

3. In terms of the content, VTS Product Specification is closely related to “*IHO S-100 IHO Universal Hydrographic Data Model”,* information types defined in the revised draft on *Guidelines for Vessel Traffic Services*,“Initial Descriptions of Maritime Services in the Context of E-navigation*”* and digital display requirements in the“*Guideline on Maritime Services”*.Taking into account that the above documents have either been revised or issued for implementation, advice to modify some contents of VTS 48-9.3.1 WP VTS Product Specification v060 (VTS47-13.3.2).

# PROPOSAL

**3.1 Combined with the IHO S-100 IHO Universal Hydrographic Data Model and its revision proposal, the following suggestions are proposed：**

1. “ Compliance Categories “will added into “*IHO S-100 IHO Universal Hydrographic Data Model”*. So that ,it is suggested to add a column after "S-100 version", "4 Product specification metadata", with the content of "S-100 Compliance Category: Category 2 - IHO S-100 compliant with non-standard encoding".

2. IHO has released *" S-111 Surface Current Product Specification Ed. 1.0.0”* and *"S-97 Guidelines for Creating S-100 Product Specifications Ed.1.1.0”*.It is suggested to add *"IHO S-111 Surface Current Product Specification, Edition 1.0.0–December 2018”*and  *"IHO S-97 Guidelines for Creating S-100 Product Specifications, Edition 1.1.0–June 2020”* after *"IHO S-101 IHO Electronic Navigational Chart (ENC), Edition 1.0.0–December 2018”*.

3. Advice to add *"S-111 Surface Current Product Specification"* in Figure 15-1 as one of the reference sources for the data set.

**3.2 It is suggested to modify and add information types in “7.2.1.1 Overview of Domain Features and Information Types”, referring to information types defined in the revised draft on *Guidelines for Vessel Traffic Services*, *Initial Descriptions of Maritime Services in the Context of E-navigation* and digital display requirements in *Draft on Guideline on Maritime Services*:**

3.2.1 Consideration of the definition of “environment warning” in the *Initial Descriptions of Maritime Services in the Context of E-navigation*, advice to change the *"*environment hazard “in the*"*7.2.1.1 Overview of Domain Features and Information Types ” to “environment warning”, to keep consistent.

3.2.2 Advice to add information types as below in *"*7.2.1.1 Overview of Domain Features and Information Types”, referring to information types defined in the revised draft on *Guidelines for Vessel Traffic Services*:

1. Space allocation a feature type. Information about space allocation of vessels in VTS area from VTS operator.

2. Navigation or manoeuvring equipment failure is a feature type. Information about navigation or maneuvering equipment failure in VTS area from VTS operator or vessels.

3. Traffic clearances is a feature type. Information about traffic clearances in VTS area from VTS operator.

3.2.3 Advice to add information types as below in*"*7.2.1.1 Overview of Domain Features and Information Types”, referring to VTS48-8.2.2 WP Draft Guideline on Maritime Services (VTS47-13.3.10):

1. Ice Service Information is a feature type. Which contains the information of Ice routing, Ice conditions / chart, Icebreaker operations, Dynamic No-go areas and Iceberg bulletins.

2. Navigational Hazard Information is a feature type. Which contains the information of Construction works, Temporary Restricted Areas, Speed reduction areas, Newly Discovered Hazards, Bridge air gap, Cables air gap, Status of AtoN and Diving operations.

3. Security Information is a feature type. Which contains the information of ISPS and Piracy .

4. Traffic and Route Information is a feature type. Which contains the information of Voyage Plan, Anchorage assignment, Berthing assignment, Route advisories, Notice to shipping, Suspension or change of routes and reporting.

5. Navigational advice Information is a feature type. Which contains the advice or instruction related to navigation .

**3.3**  **It is recommended to coordinate with Task 2.1.1 (Develop Guideline on the Portrayal of VTS Information and Data), and sort out the requirements of the portrayal of information ashore and the presentation of information on board: Add the requirements of the portrayal of information ashore and the presentation of information on board of a new section in chapter 7, which is”7.5 The requirements of the portrayal of information ashore and the presentation of information on board”,contains:**

1. “7.5.1 The requirements of the portrayal of information ashore

It is recommended to portrayal all the relevant information involved in the " VTS48-8.2.2.1 WP Appendix 1 MS 1-3\_merged revised WG 1 (VTS47-13.3.10.1) " as comprehensively as possible on the shore-based system.”

1. “7.5.2 The requirements of the presentation of information on board

**It is recommended to portrayal such relevant information involved in the " VTS48-8.2.2.1 WP Appendix 1 MS 1-3\_merged revised WG 1 (VTS47-13.3.10.1) " on the ship-based system:**

* Environmental Information, including the information of Weather Warnings and [MetArea](http://www.baidu.com/link?url=4elChUJPCyRjuG6aYfQxHInpugyOkBUirs46fb0X8ewc9rueZmRRF6JSGNuTpCix).
* Hydrographical Information, including the information of Tide, Water level and Current.
* Ice Service Information, including the information of Ice routing, Ice conditions / chart, Icebreaker operations, Dynamic No-go areas and Iceberg bulletins.
* Navigational Hazard Information, including the information of Construction works, Temporary Restricted Areas, Speed reduction areas, Newly Discovered Hazards, Bridge air gap, Cables air gap, Status of AtoN and Diving operations.
* Waterway Information, including the information of Locks and bridges, Fairway, Port and Special Area.
* Security Information, including the information of ISPS and Piracy.
* Traffic and Route Information, including the information of Notice to shipping, Suspension or change of routes and reporting.
* Navigational Warning Information, including the information of diverging from the recommended route towards.

**In addition, the following information is recommended for auditory display to reduce the impact on ship manoeuvring and collision avoidance:**

* Traffic and Route Information, including the information of Anchorage assignment, Berthing assignment, Route advisories.
* Navigational Information, including the information of Relative Position, Destination and Actual vessel track.
* Navigational advice Information, including the advice or instruction related to navigation, such as alter course, alter speed, keep clear from area/position/other vessel, increase / decrease distance from other vessel.
* Request Information, including the information of Identification, Dynamic vessel information and Voyage Plan/ Route.
* Waterway Management Information, including the information of provide advice or instruction related to navigation, diverging from the recommended route towards, Traffic clearance, Anchorage.
* Enforcement Information, including the information of Identification, Dynamic vessel .”

# ACTION REQUESTED OF THE COMMITTEE

The Committee is requested to consider the suggestions above.

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-1)
2. Leave open if uncertain [↑](#footnote-ref-2)