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Purpose of paper:

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FEEDBACK ON SUGGESTIONS FOR REVISED DRAFT GUIDELINE(VTS54-9.1.2.1) OF G1111-1 PRODUCING REQUIREMENTS FOR THE CORE VTS SYSTEM

1 SUMMARY

As an important component of the VTS system, VTS-MIS plays an increasingly important role in VTS data and information management with the application of technologies such as MASS and route exchange. To promote the coordinated development of VTS-MIS worldwide, VTS authorities have reached a consensus to standardize a guideline for the functionality and performance requirements of VTS-MIS system.

1.1 Purpose of the document

This document aims to respond to the comments and suggestions from experts of the VTS Committee regarding to the draft guideline of “G1111-1PRODUCING REQUIREMENTS FOR THE CORE VTS SYSTEM INCLUDING MIS (VTS54-9.1.2.1)”.

1.2 Related documents

VTS51-7.3.4 Task register proposal 2022-2026-G1111-10 producing requirement for VTS-MIS systems.

VTS51-7.3.4.1 producing requirement for VTS-MIS systems (DRAFT FRAMEWORK).

VTS51-13.3.0.2 WP Provisional 2023 – 2027 Task Plan.

VTS52-7.3.4 Proposal for Producing Functional and Performance Requirements for Management Information System.

VTS53-6.3.5 Proposal for the Development of an Independent G1111 Sub-guideline for VTS-MIS.

PAP49-7.2.1 IALA COMMITTEE WORK PROGRAMME 2023-2027.

VTS54-9.1.2 Proposal on updating G1111-1 to include guidance on VTS Management Information Systems.

VTS54-9.1.2.1 Annex_G1111-1 Producing Requirements for Core VTS Systems and Equipment.

¹ Input document number, to be assigned by the Committee Secretary

² Leave open if uncertain

2 BACKGROUND

To advance the establishment of VTS-MIS system standards, China Maritime Safety Administration(MSA has submitted proposals since the 51st meeting of the VTS Ccommittee, such as the Task Registration Form for "Development of VTS-MIS Functional and Performance Requirements" (VTS 51-7.3.4), the Guideline Framework (VTS 51-7.3.4.1), the Draft Guideline (VTS52-7.3.4), and the Proposal for the Development of VTS-MIS G1111 Series Independent Sub-Guidelines (VTS53-6.3.5), which was included in IALA VTS Committee Work Programme 2023-2027 at the 78th IALA Council. Considering that the G1111 series were just approved at the 78th IALA Council, to coordinate various task arrangements, the VTS Committee originally planned to initiate the revision task at the 56th VTS meeting .

China MSA has submitted a relatively mature and complete draft guidance (VTS54-9.1.2) to the VTS54 Committee, in order to better prepare for the smooth implementation of this task. Granted by the General Assembly, a representative of China MSA delivered a keynote speech at the plenary session of the Technical Working Group and invited modifications to the draft Guideline from all parties.

3 DISCUSSION

China MSA has collected the comments and suggestions and classified them into eight areas. The following is a brief description of the opinions and specific responses:

3.1 To consider the role and function of VTS-MIS in digital communication between VTS and vessels

Digital communication is expected to be the primary means of communication between VTS and vessels (including conventional vessels and MASS), even replacing current communication modes gradually. Digital communication will lead to changes in the interaction procedures between VTS and vessels, and VTS providers should clarify the role and functional positioning of VTS-MIS in digital communication and develop corresponding functional modules to adapt to such changes.

Response: Partially adopted. Include "Digital communication will be the most important means of communication between VTS and vessels in the future" in "5.5.6 COMMUNICATION LINKS" of the Draft Guideline of VTS54-9.1.2.1", and add "6.3.3 SHIP TO SHORE DIGITAL COMMUNICATION" under "6.3 BASIC OPERATIONAL REQUIREMENTS". Ship-to-shore digital communication is aimed at realizing efficient and convenient ship-to-shore data and information interaction to provide decision support for VTS personnel. VTS providers are advised to consider the role and function of VTS-MIS in ship-to-shore digital communication, and develop corresponding functional modules to adapt to this change. Meanwhile, it is recommended that the content related to digital communication in G1111 series should also be adjusted accordingly.

3.2 To consider demands of new technologies such as AI and machine learning on the functionality and performance of VTS system in the future

On one hand, the development and application of new technologies requires the VTS system to explore relevant function modules. On the other hand, the application of new technologies will lead to an increase in the amount of data received and processed by the VTS system, which requires VTS-MIS sub-system to address the associated demands and impacts on data management and organization.

Response: Adopted. It is recommended that "6.5.5 ADPTING TO FUTURE VTS" be added under "6.5 DESIGN, INSTALLATION, AND OPERATION CONSIDERATIONS" in the Draft Guideline of VTS54-9.1.2.1, VTS authorities and providers should be aware of emerging trends, technologies and practices in the "Future VTS (IALA Working Paper)". Adjust the VTS-MIS system architecture and develop performance-compliant functional modules to accommodate these emerging trends, technologies and practices.

3.3 To consider including VTS-MIS related content in G1111-1 by separate Annex

VTS-MIS is an information management system about software, and as such changes rapidly. The current framework of the G1111 series of guidelines is designed to increase their variability.

Response: There are advantages and disadvantages to be discussed further. VTS-MIS is logically and functionally related to other modules in G1111-1. The separate annex is not conducive to reflecting the relevance to other modules of the G1111-1.

3.4 To refine the definition of the VTS-MIS system

Include descriptions of “storage and processing” in the definition of the VTS-MIS system.

Response: Adopted. It is proposed to amend the definition of VTS-MIS to “VTS-MIS subsystem refers to the information management system that integrates, stores, processes, and utilizes data related to VTS operation and management. It can provide information exchange services, enhance the situational awareness of VTS duty personnel, support decision-making and reduce the work intensity of duty personnel, and achieve the purpose of promoting safety and protecting the environment”.

3.5 To consider categorizing VTS-MIS data and information into different levels

The sharing of data and information should take into account both the availability of access to third-party joint services, such as tugboats and pilotage, and the need for real-time access, as well as the need for the use of Single Window.

Response: Partially adopted. The availability of VTS-MIS data for third-party organizations has been considered in “6.4.3 ELECTRONIC DATA INTERCHANGE”. It is suggested to add a subsection “6.4.3.3 DATA SHARING WITH ALLIED SERVICE STAKEHOLDERS” under “6.4.3 ELECTRONIC DATA INTERCHANGE”. While ensuring data security, VTS Provider or VTS Competent Authority shares data with Allied Service Stakeholders in a manner that meets the requirements of the IVEF format or other data exchange formats. Additionally, to meet the data-sharing requirements of Maritime Single Window, it is recommended to supplement “6.4.3.2 MANAGEMENT DATA SHARING WITH OTHER VTS PROVIDERS’ MIS” with “Sharing and Interaction of MIS with Single Window related data”.

3.6 To supplement the management of other personnel

To supplement the management of other personnel in “6.4.1.1 MANAGEMENT OF VTS PERSONNEL”, and in consideration of the privacy and security of personnel information, some personal information needs to be processed in a special way.

Response: Adopted. Include “Other Personnel: Some VTS may include management of other personnel such as pilots, tug pilots, etc.” in “6.4.1.1 MANAGEMENT OF VTS PERSONNEL”. Additionally, add “6.4.1.5 PERSONAL PRIVACY PROTECTION” under “6.4.1 ADMINISTRATION”. VTS authorities or providers should protect personal privacy and establish corresponding procedures.

3.7 To maintain the consistency of MIS (Chapter 6) and other chapters of the Guideline in description

Response: Adopted. Helps refine and adjust the contents related to MIS in other chapters, and ensure consistency in both the framework and contents of the whole Guideline.

3.8 Some editorial comments of the Draft Guideline

Response: Adopted. A comprehensive revision has been conducted according to the editorial comments.

Representatives of all parties are welcome to continue to provide comments on the draft guidance and this proposal. China MSA will continue to refine the Draft Guideline based on the comments and suggestions and submit an updated draft guideline to VTS56.

4 REFERENCES

- [1] Vessel Traffic Services Manual (Edition 7)
- [2] IMO Resolutions A.1158(32) GUIDELINES FOR VESSEL TRAFFIC SERVICES
- [3] G1111 Series Guidelines R0145 (V-145) THE INTER-VTS EXCHANGE FORMAT (IVEF) SERVICE

[4] Future VTS Discussion Paper

5 ACTION REQUESTED OF THE COMMITTEE

The Committee is requested to:

- 1 To consider the proposal, and continue to provide revision comments on the feedback in this proposal and the original draft guidelines (VTS54-9.1.2.1).