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

**□** ENAV **X** VTS **□** Information

Agenda item 6.3

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

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

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

#  Summary

With the advent of the digital age, how to better manage and utilize massive amounts of information has become a focus of attention in all industries. The VTS-MIS system, as an important part of the VTS system, is the core of the overall system information processing and is playing an increasingly important role in VTS operation and management. This has become a consensus among VTS providers in all countries, but there is no consensus on the definition of a VTS-MIS system and a lack of relevant performance and functional standards for VTS-MIS systems.

To facilitate the development of VTS-MIS system standards, since the VTS 51 Committee, China MSA has submitted task register proposal (VTS 51-7.3.4), draft framework (VTS 51-7.3.4.1) and draft guideline (VTS 52-7.3.4.1) on “*Producing Functional and Performance Requirements for Management Information System*”, which was included in the preliminary work plan for IALA 2023-2027 (VTS 51-13.3.0.2) at the VTS 51 Committee. At present, there is still a difference of opinion as to whether a separate G1111 sub-guideline should be developed for the “VTS-MIS” system or whether it should be included in G1111-1, as a sub-guideline for the core VTS system. Considering the characteristics of the VTS-MIS system and future needs of VTS development, we believe that an independent G1111 sub-guideline for VTS-MIS should be developed.

This proposal further discusses the necessity of developing an independent G1111 sub-guideline for the “VTS-MIS ”system.

## Purpose of the document

The purpose of this document is to

* To discuss the necessity of developing an independent G1111 sub-guideline for the “VTS-MIS” system.
* To facilitate the inclusion of this task in the IALA VTS 2023-2027 four-year work plan.

## 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

IMO Resolution A.1158(32) GUIDELINES FOR VESSEL TRAFFIC SERVICES

# Background

The VTS Management Information System (MIS) is an information management system for storing, maintaining and using the data and information involved in VTS, which can fully interact and integrate with vessel dynamic data and operational data using the database and its management system, extend the information processing process, provide data support and decision support for VTS operators, reduce the work intensity of VTS operators and improve the operational efficiency of VTS. The MIS sub-system is an important part of the VTS system and will play an increasingly significant role against the background of the continuous promotion of the global E-navigation strategy and the continuous development of new business models such as MASS.

# Discussion

* VTS-MIS system can integrate and store the internal and external operational data of VTS in a structured manner, including dynamic and static information, voyage plan, administrative management and so forth, and provide data support (including real-time and non real-time data) and aid decision support for VTS duty in an intuitive way according to the personalized needs of different users, and enhance VTS operators to focus on vessel traffic image, so as to enhance the data interaction and sharing between different VTS centers and other interested parties, and improve the coordination and interaction ability of between different VTS centers , improve the work efficiency of and strengthen the situational awareness of VTS operators and the operating efficiency of VTS, and improve the safety and efficiency of ship traffic.
* The general principles of GUIDELINES FOR VESSEL TRAFFIC SERVICES clearly states that effective harmonized data exchange and information-sharing is fundamental to the overall operational efficiency and safety. The importance of MIS system becomes more prominent.
* One of the designing purposes of the G1111 framework is to ensure the flexibility of the guidelines’ system, so that the relevant sub-guidelines can be continuously revised according to the needs of technological development and VTS operational management, without revising the whole guideline. Making independent sub-guidelines of VTS-MIS not only helps to maintain the flexibility of the G1111 guideline system, but also facilitates the continuous updating of the relevant contents of the MIS system, thereby promoting the overall function of the VTS.
* As a sub-guideline for modules such as IT platform and software of VTS System, although “Management Information System” is mentioned in 4.3 *SHIP VISIT AND VTS DATA MANAGEMENT* in G1111-1, G1111-1 focuses more on VTS traffic images and does not provide detailed information on the functions and performance standards of MIS system, which cannot provide sufficient guidance for building a coordinated, unified and efficient MIS system. In addition, the function of MIS system is differentiated, and its performance parameters are also diverse and complex. Therefore, the existing content about MIS system is too general to reflect the diversification and differentiation of MIS system.
* Although VTS-MIS is a part of the VTS system, it is a separate and complete data ecosystem in terms of system framework, logical structure and VTS workstation setup. In practical applications, MIS is providing duty and decision related data and information in a separate interface, and its importance is becoming more and more prominent. From the perspective of VTS operators, MIS is a complete subsystem independent of traffic image, and its function is relatively independent.
* With the development of the MIS system, the operation of MIS system has become an important part of the competency and on-job training of VTS personnel, and the formulation of corresponding training requirements and model courses needs to be guided by relatively independent and complete MIS system standards.
* The continuous promotion of the global E-navigation strategy and the development of new business models such as MASS have put forward higher requirements for data processing and management ability of VTS. VTS needs to have a corresponding systematic data management system.

Considering the complexity of MIS system functions and performance and the future development trends of VTS, we believe that it is necessary to formulate independent function and performance standards for MIS.

# References

1. Vessel Traffic Services Manual (Edition 7)
2. IMO Resolutions A.1158(32) GUIDELINES FOR VESSEL TRAFFIC SERVICES
3. ISO/IEC 25000:2014
4. IALA Guideline 1086 -THE GLOBAL SHARING OF MARITIME DATA & INFORMATION:2012
5. ITU RADIO REGULATIONS (Edition of 2020).
6. G1111 Series Guidelines

# Action requested of the Committee

The Committee is requested to consider the above proposals and take appropriate action.