|  |  |  |
| --- | --- | --- |
| **From:** | VTS Committee | PAP49-6.1.1 |
| **To:** | PAP  IALA MASS Task Force  ARM Committee  ENAV Committee  ENG Committee |  |

**LIAISON NOTE**

**Implications of MASS from A VTS Perspective**

# introduction

The VTS Committee commenced *Task 1.2.5 - Develop guidance on the Implications of Maritime Autonomous Surface Ships (MASS) from a VTS Perspective* at VTS50 in 2021 as part of its 2018-2022 work programme.

# Discussion

Key components of the task include preparing:

* A Discussion Paper on MASS and implications for the provision of VTS; and
* Guidance to assist VTS providers with the advent of MASS.

## Discussion Paper

The purpose of the discussion paper is to assist the Committee:

* Achieve a common understanding of MASS and its implications on the provision of VTS by clearly and concisely identifying:
  + Trends and opportunities presented by MASS.
  + Issues / challenges for the management of ship traffic in a VTS area.
  + Operational requirements for managing ship traffic and the interaction between VTS, ships (both conventional and autonomous), allied services and RCCs through mix of traditional VHF voice, digital communications, and automated data exchange.
  + Options, policies, and strategies for VTS to embrace / influence MASS.
  + Implications for the regulatory and legal framework for VTS.
  + Implications for IALA Standards relating to VTS.
* Monitor the advent of MASS and its associated implications for VTS.
* Strategically plan for MASS and determine new work programme tasks associated with the preparation of new/amended IALA guidance.
* Prepare guidance to assist VTS providers ensure the safety and efficiency of vessel movements.

The advent of MASS will be ongoing for many years, and it is intended that the document will be regularly reviewed and updated by the Committee, to reflect:

* Amendments to IALA policy documents, including the *Strategic Vision* and *Current Drivers and Trends*.
* The development of a goal-based instrument for MASS (IMO Maritime Safety Committee).
* New / revised IMO instruments specifically related to MASS.
* Outcomes from the MASS Task Force.

It is not the intention for this document to address the issues/implications identified. This will be achieved through new/amended work programme tasks adopted by the Committee.

The Committee is of the view that the Discussion Paper is helping to achieve a common understanding of the implications of MASS from a VTS Perspective For example:

* How VTS interacts with MASS and the entity in command of the ship (Master/RCC/ automated onboard command system), including managing interaction with multiple RCC’s.
* Ensuring the intent of messages conveyed to actors, including allied services, is the same, irrespective of the technology used to deliver it (e.g., voice/digital/automated data exchange). In particular, the provision of information and issuing advice, warnings, and instructions to achieve the purpose of VTS,
* The role of human operators in transitioning from the traditional means of vessel navigation, ship traffic management and communications, to more highly automated voyage planning, data exchange, and ship traffic management.

The Committee also considers it is now timely for the high-level requirements for managing ship traffic and the interaction between VTS and ships with the advent of MASS need to be communicated to all IALA Committees and externally to IMO, its Committees and Task Groups progressing MASS.

A copy of the Discussion paper is at Annex 1.

## Guidance

At VTS51 and VTS52 the Committee concluded that work on a Guidance document be paused, recognizing:

* The development of the Discussion Paper as described in section 2.1 above.
* The development of a goal-based instrument for MASS (IMO Maritime Safety Committee) and associated roadmap.
* The consideration of ‘Case Studies’ (Refer to [**https://www.iala-aism.org/technical/mass/**](https://www.iala-aism.org/technical/mass/)**)**
* Existing guidance available for MASS trials such as:
  + The IMO Interim Guidelines for MASS Trials (MSC.1/Circ.1604).
  + EU Operational Guidelines for Safe, Secure and Sustainable Trials of MASS.
  + MASS UK Industry Conduct Principles and Code of Practice
  + Other national guidelines developed to support MASS trials

Noting the above, the Committee intends to commence preparation of guidance to assist VTS providers in contributing to the safety and efficiency of vessel movements with the advent of MASS following MSC106 and MSC107 at VTS54.

# Action requested

1. That the MASS Task Force and the ARM, ENAV and ENG Committees note:
   * The Discussion Paper on the Implications of MASS from a VTS Perspective and consider it when appropriate in the conducting their work programmes (Annex 1).
   * The VTS Committee’s intent to begin the preparation of guidance for VTS providers at VTS54.
2. That the MASS Task Force include a description of the ongoing work by the VTS Committee on the implications of MASS from a VTS perspective in the proposed input paper to MSC107 to facilitate consideration of shore-based requirements for managing ship traffic.

# Annex

Discussion paper (PAP49-6.1.1.1) – Implications of Maritime Autonomous Surface Ships from a VTS Perspective.