



10 - TECHNICAL ACTIVITIES

10.5 – VTS Committee

10.5.20 Future VTS

Note by the VTS Committee

1 INTRODUCTION

Globally, there is a trend for more proactive management of shipping in response to increasing volumes of traffic, emerging practices, technologies, and trends, increasing competition for access to waterway space and changing public expectations.

VTS, as an internationally recognized navigational safety measure contributing to the safety of life at sea, safety and efficiency of navigation and protection of the marine environment, will play a key role in this change.

There is consensus that the transition to embracing emerging developments and “future VTS” needs to commence now.

As part of its 2018-2022 work programme the VTS Committee commenced preparing a “living document” (C76-10.5.20.1) to provide a basis for discussion on emerging trends, technologies and practices that have implications for VTS and to strategically plan and coordinate embracing the change.

In particular, the document aims to provide a concise, high level, reference to assist the Committee:

- Be cognisant of emerging practices, technologies and trends that will affect the provision of VTS.
- Assess and monitor the potential impact, challenges, and opportunities for VTS.
- Strategically embrace change and, in particular, how existing VTS practices could be enhanced, and potential new practices be adopted.
- Plan for the future through, for example:
 - Adopting future work programme tasks.
 - Facilitating necessary changes to IALA guidance documents relating to VTS or the international legal and regulatory framework for VTS.
 - Managing any practical issues and challenges in transitioning to a more proactive role for VTS in the future.
 - Liaison/engagement with other bodies.
 - Engaging and communicating with all stakeholders and the public.



2 DISCUSSION

The document focusses on 13 emerging practices, technologies and trends that will affect the provision of VTS, including:

- Maritime Autonomous Surface Ships (MASS)
- Digital technologies and communications
- Green House Gas Emissions/Just in Time Arrival
- Advanced Decision Support Services
- Automated Data and Information Exchange
- Navigational Support/Assistance
- Sea Traffic Management
- Marine Spatial Planning
- Interacting Objects
- Situational awareness/Common Operating Picture (COP)
- Slot Management
- New sensing technology for nearshore and port waters
- Long-distance sensing technology

The Committee recognizes that these trends and technologies present many challenges and opportunities for the maritime sector. They also provide the opportunity for VTS to evolve by embracing the changes and adopting new technologies, capabilities, and practices, thus, allowing VTS to enhance its ability to support the safety of life at sea recognizing its evolving role in the future.

3 KEY MESSAGES

1. The “Future VTS” paper explores:
 - Emerging trends, technologies, and practices
 - Expectations for ‘Future VTS’
 - Realising the expectations
 - Implications for the international framework for VTS
2. As the document matures, the committee is exploring mechanisms to assist planning for the future through:
 - Liaison/engagement with other bodies.
 - Engaging and communicating with all stakeholders and the public.
3. A different skill set may be required to enable VTS personnel to evolve with the adoption of these emerging trends, technologies, and practices.
4. It is important to recognize that the development of applicable technologies and the global standardisation is often within the remit of other international organizations, particularly the IMO.
5. IALA’s contribution to the development of internationally harmonized guidance for vessel traffic services is noted in the IMO Resolution for VTS A.1158 (32) and the annex to the guideline states:
 - *IALA is recognized as an important contributor to IMO's role and responsibilities relating to VTS; and*
 - *Contracting Governments are encouraged to take into account IALA standards and associated recommendations, guidelines and model courses.*
6. IALA’s role in the development of VTS guidance will remain essential to aid the maritime community in embracing these developments and successfully transitioning to “Future VTS” operations.

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4 THE COUNCIL IS REQUESTED TO

Note the C76-10.5.20.1 “Future VTS” Discussion Paper and bring it to the attention of their competent authorities, VTS providers and relevant stakeholders to encourage engagement with IALA and IMO in preparing for the future and embracing these emerging trends, technologies, and practices.

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