

## VESSEL TRAFFIC SERVICES IN A RAPIDLY CHANGING WORLD

Submitted by  
the International Association of Marine Aids to Navigation and Lighthouse Authorities  
(IALA)

### SUMMARY

<i>Executive summary:</i>	This document informs the Sub-committee on the development of IALA VTS related activities and the potential implications for the existing international guidance for the provision of VTS under SOLAS.
<i>Strategic direction:</i>	5.2
<i>High-level action:</i>	5.2.4
<i>Planned output:</i>	
<i>Action to be taken:</i>	Paragraph 18
<i>Related documents:</i>	IMO Resolution A.857(20), MSC.43(64) as amended, MSC circular 586, MSC circular 1065

### Introduction

1 The International Association of Marine Aids to Navigation<sup>1</sup> and Lighthouse Authorities (IALA), has the aim to foster the safe and efficient movement of vessels through the improvement and harmonization of marine aids to navigation worldwide, and by other appropriate means.

2 The role of IALA as regards to Vessel Traffic Services (VTS) is well established and recognized in current IMO instruments and documentation. In particular this includes:

- SOLAS Chapter V, Regulation 12 Vessel Traffic Services
- IMO Resolution A.857(20), "Guidelines for Vessel Traffic Services"
- IMO Resolution MSC.43 (64), "Guidelines and criteria for Ship Reporting Systems"
- MSC circular 586 on the IALA/IAPH/IMPA World VTS Guide
- MSC circular 1065 on IALA standards for training and certification of Vessel Traffic Service (VTS) personnel

3 IALA's mission for VTS is to foster the safe, economic and efficient movement of vessels and the protection of the marine environment, through improvement and

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<sup>1</sup> The term 'Marine Aid to Navigation' means a device, system, or service, external to a vessel, designed and operated to enhance safe and efficient navigation of all vessels and/or vessel traffic

harmonization of the delivery of VTS worldwide in a rapidly changing maritime environment, for the benefit of the maritime community and in support of other services.

4 IALA deals with all aspects of VTS, including the expanding role in support to vessel monitoring for maritime safety, efficiency of navigation, environmental protection and security. IALA aims to contribute to the development and review of VTS related documentation on issues such as the training of VTS personnel, operational procedures, equipment requirements, the impact on the provision of services, responsibilities, the impact of new technologies and the role of VTS in security and global traffic monitoring systems.

5 The IALA strategy for the period 2014-2026, adopted by the organization's General Assembly in 2014, contains a strategic domain identifying the following goals:

- G1.- Ensure that aids to navigation systems and related services, including e-Navigation, Vessel Traffic Services, and emerging technologies, are harmonized through international cooperation and the provision of standards.
- G2.- All coastal states have contributed to an efficient global network of aids to navigation and services for the safety of navigation, through capacity building and the sharing of expertise.

## **Considerations**

6 The role of VTS and its capabilities are increasing.

7 Trends, such as globalization and the extensive use of new information and communication technologies have already provided opportunities for enhanced interaction and information sharing, not only between ships and shore-based authorities, but also – with reference to IALA Guideline 1102 on VTS Interaction with Allied and Other Services as approved by IALA Council (December 2013) - with and between many other stakeholders.

8 The complexity of utilization of the maneuverable space for shipping is growing, threatening the maritime use of the sea. As a result, safe navigation and accessibility in many sea, coastal and port approaching areas worldwide are increasingly under pressure. The need for proactive management of vessel traffic in these areas is rapidly growing, as well as the need for enhancement of the interaction between ships and relevant shore based authorities.

9 Management of operational space from a shipping perspective by evolving VTS, supported by the capabilities of e-Navigation and its Maritime Service Portfolio developments, and in conjunction with the development of guidelines for Marine Spatial Planning are seen as candidate combinations on how to deal with the challenges ahead, in order to secure future safe and efficient navigation.

10 These rapidly emerging developments present a risk in terms of differing VTS provisions which may cause confusion to masters of vessels moving from one VTS area to another. This risk is recognized in the current IMO Resolution A.857(20).

11 Based on the above it is expected that the current tasks and traffic management functionalities of VTS, as reflected in IMO Resolution A.857(20) and in various IALA Recommendations and Guidelines, will extend and be executed in an increasingly innovative manner responding to changing user needs and public expectations.

12 The worldwide harmonized provision of present and future Vessel Traffic Services, their procedures and usage of technologies shall be the ultimate aim, but focus should be kept on two basic principles:

- .1 the recognition that on a worldwide, regional, national or local level circumstances may differ due to for instance geographical characteristics, traffic density and diversity, accessibility, environmental conditions and the position and role of VTS in the maritime domain in a certain area;
- .2 the determination and decision of which services, and on what level they shall be provided to shipping and other stakeholders in their areas of responsibility, will remain assigned to the relevant national, regional or local authorities.

### **IALA strategy for the delivery of VTS in a rapidly changing maritime domain**

13 IALA, taking into account the organization's mandate and relevant activities, developed a new strategy for the delivery of VTS in a rapidly changing maritime domain (as approved by the IALA Council, May 2015) with the following goals:

- G1.- Worldwide harmonized use of the potential of VTS to meet new user-driven challenges and developments in the maritime domain, e.g. the concept of a Sustainable Maritime Transportation System
- G2.- Worldwide harmonized, coordinated and seamless delivery of VTS
- G3.- Harmonized technology framework, supportive to VTS, in accordance with international standards and developments
- G4.- Harmonized training and certification of VTS personnel

14 For the development of these goals IALA has accomplished the following activities in order to identify possible implications for IMO Resolution A.857(20), Guidelines for Vessel Traffic Services, including assessing and identifying:

- .1 the strengths and weaknesses of IMO Resolution A.857(20) in setting the framework for the delivery of VTS
- .2 developments in VTS since the current IMO Resolution A.857(20) came into force (1997)
- .3 emerging trends that may be anticipated over the next 10-20 years
- .4 possible limitations to addressing the emerging needs and developments for VTS within the existing provisions of IMO Resolution A.857(20).

15 As a consequence of the above IALA incorporated a number of strategic tasks into its current Work Programme 2014-2018 and beyond. These tasks are connected to relevant operational, technical and training domains.

16 As IALA further progresses these tasks it is anticipated that some IMO member states, co-sponsored by IALA, may consider a submission to the IMO Maritime Safety Committee with a proposal for the review of IMO Resolution A.857(20) as an unplanned output in the High Level Action Plan of the organization for the biennium 2018-2019. This submission will be developed in accordance with the Guidelines on the organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies (MSC-MEPC.1/Circ.4/Rev.3)

17 IALA, as part of its Work Programme 2014-2018 and beyond, is coordinating this task in conjunction with its members and other interested parties.

**Action requested of the Sub-Committee**

18      The Sub-Committee is invited to note the information provided.