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| From: VTS Committee | EEP15/15/6  Formerly VTS31/output/4 |
| To: e-NAV Committee  EEP Committee  ANM Committee | 17 September 2010 |

Liaison Note

VTS in VTM

This document reflects the current development of the concept of VTM and the role and position of VTS within the VTM functional framework by the VTS Committee.

# Introduction

In the last decades, society, including the maritime environment has been undergoing constant change. Not only through the development of information and communication technologies, but also due to increasing interdependencies between public and private parties, an increased focus on the organization of the maritime transport chain, and the public perception of the need to monitor vessel traffic.

The aims of VTM are to enhance the:

* safety of navigation;
* efficiency of maritime transport;
* security of shipping, ports and infrastructure;
* protection of the marine environment.

# Compelling needs

## Why VTM?

The concept of Vessel Traffic Management has been developed to clarify and understand the effects of these changes, and to identify possible measures and services to better manage traffic.

There are many arrangements and services already established between stakeholders within the maritime domain, however, often these have been implemented in a non-uniform manner. It is recognised there is a need to develop a framework to facilitate collaborative arrangements and to harmonise measures to be taken and services to be provided.

## Why IALA took responsibility?

In recognition of:

* the current trend towards increasing unco-ordinated integration of maritime services between various stakeholders;
* VTS taking an active role due to its functional capabilities; and
* VTM’s linkage to e-Navigation, for which IALA’s has a developmental role.

IALA, as the co-ordinating body for VTS, sees the need to develop guidance to co-ordinate these processes. Due to the global impact of the concept of VTM, it is considered important that IMO recognises and accepts the concept.

## Why the VTS Committee?

The aims of VTS are closely related to the overall aims of VTM, which gives the VTS Committee a unique perspective when defining the concept and developing the scope of VTM.

# The concept of VTM

Vessel Traffic Management (VTM) is concerned with managing vessel traffic. However, vessel traffic is already managed by multiple rules, regulations, owners, crews, authorities, aids to navigation, VTS etc. This is why there is an increased focus on the organization of the maritime transport chain and the public perceptions that maritime traffic needs to be monitored.

It is recognised that many parts of the maritime transport chain are already managed in order to serve specific interests. Where interdependencies between these are not managed, the co-ordination and collaboration between stakeholders is necessary to:

* take the stakeholders’ interests into account and manage associated risks;
* improve and sustain the maritime transport chain; and
* respond to public interest.

Consequently, the VTS Committee has defined VTM as:

*the functional framework of harmonized measures and services to enhance the safety, security and efficiency of shipping and the protection of the marine environment in all navigable waters*.

Public Authorities used to have a monopoly of knowledge but this is no longer the case; knowledge is everywhere. In addition, many Authorities need support from other stakeholders in order to meet their responsibilities and to fulfil their tasks. As a consequence, this makes the information position of the Authority vulnerable. This, in turn, results in Authorities being increasingly dependent on these external parties.

This is also the case in the maritime domain, where legislation through IMO is not always an option for managing these interdependencies. Similarly, quality management systems are not always the answer to facilitating collaboration.

There may be a need to implement new arrangements on top of what is already in place, in order to manage such interdependencies; in particular those affecting the marine environment and/or the safety, efficiency and security of maritime traffic. These arrangements should be practical, adaptable and sustainable. They also need to be based on the functional requirements of stakeholders.

# The role and position of VTS within the VTM functional framework

For clarification, the term ‘VTS’ is used when referring to the ‘service’, otherwise, the term ‘VTS Authority’ is used to specifically refer to the organization.

The **role** of VTS within VTM is to contribute its capacity to interact with other stakeholders and its **position** within VTM relies on its status in the eyes of other stakeholders[[1]](#footnote-1).

The **information position** of VTS within VTM depends upon its ability to collect, manage, process, and/or distribute data and information. The information position of VTS also affects its capability to manage the information exchange between stakeholders in the VTM framework and to define the conditions for the use and re-use of information exchanged.

Within the domain of VTM, and given a strong information position of VTS, the VTS Authority is expected to:

* prevent the development of dangerous situations;
* sustain the vessel traffic flow;
* inform stakeholders of the risks of vessel traffic in the VTS area that may develop into accidents or incidents, and
* provide support and inform other stakeholders within the VTM framework in accordance with specific arrangements with identified stakeholders.

# The existing and future role and position of VTS

The existing role of VTS focuses on the safety and efficiency of vessel traffic, protection of the marine environment and the relationship with allied services. However, limitations on the current provisions of VTS services should be considered by VTS Authorities as they may have an impact on the future role and position of VTS.

It should be recognized that VTM can exist without VTS. This depends on geographical, local conditions and traffic circumstances and/or organizational arrangements. If this is the case, measures and services within the VTM framework, which are usually assigned to VTS centres, may be provided by other organizations (e.g. Coastguard, monitoring stations and reporting services).

There will be situations where the VTS Authority is not the Competent Authority. As a result, this may lead to changes in the role or position of VTS within the VTM framework and to new roles for the VTS Authority as the VTM concept continues to evolve.

# Vision and developments

The role and position of VTS within VTM begins upon the need for vessel traffic management. It recognizes also that:

* managing risks requires a pro-active approach and knowledge of risk factors;
* improving efficiency to ease the administrative burden onboard, requires a single point for reporting, and to prevent unnecessary downtime in the handling of vessel traffic.
* controlling space is needed to adjudicate between claims on navigable space, thus preventing unwanted encounters.

# The anticipated consequences for VTS

The short term consequences for VTS have been identified, and the most visible ones are:

* a broader context implies that more stakeholders and their interests should be taken into account;
* a stronger information position implies that increased support from VTS to stakeholders may be expected;
* increased information exchange implies that more interfaces will need to be integrated and the application architecture may need to be revisited;
* more collaboration implies that emerging priorities may affect the way primary services are delivered.

In the longer term, it is expected there will be a shift in focus (not of scope) for VTM to incorporate more tactical and strategic levels. It is understood that through enhanced planning and the monitoring of traffic by VTS, most risks can be better mitigated or managed. In addition, traffic planning can also provide business benefits from other stakeholders that VTS does not take into account.

A shift of focus at the tactical and strategic level does not imply that the VTS services INS and NAS will dramatically change, however, it is expected that TOS will further develop and be enhanced. New measures such as information analysis, resource planning and risk assessment may need to be considered.

Furthermore, there may be some impact on personnel and training. In this respect, commercial pressure from ship owners and charterers has already recognised and is seeking value-added services beyond that currently delivered by VTS.

# Action requested

The e-NAV, EEP and ANM Committees are requested to comment on this liaison note, in order to assist in the further development of the VTM concept.

1. This interaction may benefit other stakeholders as well as the aims of VTM when the VTS Authority can provide vital information in addition to the provision of traditional VTS services such as Information (INS), Navigation Assistance (NAS) and Traffic Organization (TOS). The more this information is valued by the receiving stakeholders, the stronger the position of VTS related to the information exchange will be. A strong position of VTS provides the VTS Authority with the opportunity to take a central role in the management of information within the VTM framework. Holding a strong information position may result in a greater contribution to the benefits of VTM. [↑](#footnote-ref-1)