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| IALA Guideline |

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VTS in inTERNAL waters

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# INTRODUCTION

IMO Resolution A.xxx(xx) - Guidelines for Vessel Traffic Services is associated with SOLAS Chapter V Regulation 12. It provides high-level guidance for planning, implementing and operating a vessel traffic service under national law. This guideline recognises IALA as an important contributor to IMO's role and responsibilities relating to vessel traffic services (VTS) and encourages Contracting Governments to take into account IALA standards and associated recommendations, guidelines and model courses

SOLAS Chapter V Regulation 1 sets out the applicability of Chapter V but includes the provision that Administrations may decide to what extent this chapter shall apply to ships operating solely in waters landward of the baselines which are established in accordance with international law.

IALA Standards, Recommendations, Guidelines and Model Courses relating to VTS are issued to provide guidance on planning, implementing and operating a VTS in territorial seas, coastal waters and port/harbour areas with some limited provisions for VTS beyond territorial seas.

IALA recognises the benefit of extending this guidance to internal waters as deemed appropriate by national authorities.

# AIMS AND OBJECTIVES

Ships and craft in internal waters frequently operate beyond internal waters into coastal and port/harbour areas. It follows that there is considerable benefit in the control and management of ship traffic in internal waters being harmonised to similar global standards as far as is appropriate and to follow the IALA guidance for operating VTSs in territorial seas and coastal waters and port/harbour areas.

National administrations should consider, therefore, legislating for the control and management of vessels operating in internal waters to be aligned as appropriate with the guidance provided for VTSs covering territorial seas and coastal waters and port/harbour areas.

The aim of this guideline is to highlight important guidance that might be relevant to a VTS established in internal waters and to identify applicability of IALA guidance.

# iala guidance relevant to vts in internal waters.

The IALA VTS Manual gives a useful overview of VTS. Detailed advice on VTS is provide through a series of IALA recommendations and Guidelines.

Whilst all these documents are directed at VTS in territorial seas, coastal areas and ports/harbours, most have a relevance to VTS in internal waters should it be considered that a degree of control and traffic management is required.

This section identifies those recommendations and guidelines that may have relevance to VTS in internal waters and on which national administrations may wish to draw.

## Establishment and risk

IALA provides guidance on establishing a VTS and provides guidance on risk assessment processes that assist in assessing the need for a VTS.

References relevant to establishment ad risk include: a recommendation on establishment a VTS [1] and an associated guideline on establishing, planning and implementing a VTS [2], a recommendation of risk management [3] and associated guidelines on risk management [4], and risk management tools IWRAP Mk II [5], PAWSA Mk II [6] and SIRA [7]

## Procurement

Once the need for a VTS has been established, it will be necessary to set out the requirements for procurement.

IALA documents relating to setting the technical requirements include: a recommendation on the operational and performance standards of VTS systems [8] and an associated guideline on the preparation of operational and technical performance requirements for VTS Systems [9], a recommendation on the portrayal of VTS information and data [10] and associated guidelines on the shore side portrayal ensuring harmonisation with e-Navigation related information [11] and the use of decision support tools for VTS personnel [12], a recommendation on inter-VTS exchange format [13] and an associated guideline on VTS-information exchange with allied or other services [14].

## Operational

IALA provides a number of documents relating to key operational considerations.

IALA documents relating to operational considerations include: a recommendation on VTS operations [15] and an associated guideline on drafting of operational procedures for a VTS [16], a guideline that sets out advice on the provision of a VTS including the responsibilities and purpose [17], a recommendation on VTS communications [18] with an associated guideline providing greater detail on VTS voice communications and phraseology [19], guidelines on setting and measuring VTS objectives [20], VTS interaction with allied and other services [21], VTS role in managing restricted or limited access areas [22], standard nomenclature to identify and refer to VTS centres [23] and helpful guidance on AIS in a guideline on the management & monitoring of AIS information [24] and an overview of AIS [25].

## training & certification

A VTS should be suitably staffed by personnel appropriately trained and certified.

IALA has established international standards for training set out in a recommendation on the certification of VTS personnel [26] and an associated guideline on the recruitment training and certification of VTS personnel [27]. Model courses have been designed and are set out in model courses for the basic training of VTS operators [28] and for VTS supervisors [29], the on-the-job-training for VTS personnel at their VTS centre [30], the training of on-the-job training instructors [31] and guidance for the revalidation of VTS personnel [32]. Further guidance is also provided for the accreditation and approval process for VTS training [33], the assessment of training [34] and simulation in VTS training [35].

Further guidance is also provided on staffing levels at VTS centres [36].

## Quality management & auditing

If a VTS is formalised, a quality management structure is required and a process of auditing and assessment of its continued effectiveness is considered necessary. IALA provides guidance on quality management [37] and on auditing and assessing VTS in the form of a recommendation [38] and an associated guideline [39]

# applicability of iala guidance

IALA Standards apply to VTSs in international, territorial and coastal areas and in ports/harbours. The relevance of this IALA guidance on VTSs established in internal waters may vary considerably dependent on such high-level aspects as the density of traffic, the type of ships or craft navigating the waterway and the nature of the waterway.

In assessing the need for a VTS and the applicability of the IALA guidance, many detailed factors may need to be considered. These include, but are not limited to, factors in the sections below.

## Establishment and risk

Guidance on the assessment of risk is based on international, territorial and coastal areas and in ports/harbours. The tools set out in the IWRAP and PAWSA models may prove to be too sophisticated for an inland waterway. SIRA provides a simpler process that may be more relevant. Nevertheless, all draw on the capture of AIS information as important source data and this may still be very relevant to risk assessment of inland waters where such data can be gathered.

Whilst the IALA recommendation and guideline on the establishment of a VTS is based on the requirements for SOLAS vessels and IMO provisions, these documents set out basic principles, many of which will be of significant relevance to a VTS in internal waters.

## Procurement

IALA guidance on the procurement, technical specifications and performance standards for a VTS assume the need for continuous and uninterrupted surveillance of the entire area for which it is responsible with a high degree of reliability and redundancy. The technical specifications, particularly for radar, relate to relatively open waters. Not all of these may relate to internal waters; equally, there may be additional considerations unique to internal waters such the management of locks and bridges that require additional consideration. Gapless coverage may not be feasible or necessary. The guidance does, however, provide a useful baseline on which to draw in developing the specifications for a VTS in internal waters.

Whilst a VTS in internal waters may be of more modest proportions, many of the principles set out in the guidance on the portrayal of information to VTS personnel will still be relevant in establishing a suitable environment for VTS operations. Whilst the decision support tools may be different, the use of decision support tools is likely to be of similar value to a VTS in internal waters and the IALA guidance of equal relevance.

With the increasing globalisation of maritime operations, the increasing emphasis on data management is likely to be of high importance in inland waters and the IALA guidance on IVEF of significant relevance.

## Operational

Many of the detailed considerations for operational procedures listed in the IALA guidance may not be relevant to internal waters. However, the need for operational guidance is of equal importance to VTS personnel in inland waters and the principle of setting out operational procedures should be followed and the basic principles of the IALA guideline adapted as appropriate and appropriate objectives are set.

IALA documentation seeks to ensure the harmonisation of procedures and communications worldwide. Since waterways in internal waters where a VTS is considered to be necessary are likely to be used by traffic transiting between internal and other waters, national administrations are recommended to ensure that VTS providers in internal waters follow the same protocols as far as is reasonably practicable. It is recognised that local language may be the primary language for a VTS in internal waters but it is recommended that the phraseology recommended by IALA is still used when translated into the local language and that principles for VTS nomenclature are followed.

Interactions with allied and other services may be very different but the guidance may still prove helpful and restricted or limited access areas may still be encountered in some internal waters. Reference to IALA guidance may be of value in such cases.

Many internal waterways draw heavily on AIS as a primary tool for tracking and it is important that the capabilities and limitations are fully understood. IALA’s guidance has relevance to VTSs in internal waters.

## training & certification

Whilst it is for the national administration to mandate the training and certification requirements for VTS personnel in internal waters, there is a clear benefit in drawing on the international standards set by IALA for training and certification, which includes guidance on the management and accreditation of training establishments. The use of IALA modules may enable personnel from VTSs in internal waters to transition more easily to other VTS centres as part of their career progression. The closer a VTS in internal waters is aligned to the international standard, the greater the potential for all training to be conducted to the same model course standard, thus achieving economies of scale.

## Quality management & auditing

A VTS in internal waters will require to have a quality management system in place and auditing forms part of this process. The IALA guidance can be adapted as appropriate.

# DEFINITIONS

The definitions of terms used in this IALA Guideline can be found in the International Dictionary of Marine Aids to Navigation (IALA Dictionary) at <http://www.iala-aism.org/wiki/dictionary> and were checked as correct at the time of going to print. Where conflict arises, the IALA Dictionary should be considered as the authoritative source of definitions used in IALA documents.

# REFERENCES

The following reference list relate to topics as listed in section 3:

## Establishment and risk

1. R0119 - Establishment of VTS
2. G1150 - Establishing Planning and Implementing a VTS
3. R1002 - Risk Management for Marine Aids to Navigation
4. 1018 - Risk Management
5. G1123 -The use of IWRAP MKII
6. G1124 - The use of PAWSA MKII
7. G1138 - The use of Simplified IALA Risk Assessment (SIRA)

## Procurement

1. V 128 - Op and Tech Performance of VTS Systems
2. 1111 - Preparation of Operational and Technical Performance Requirements for VTS Systems
3. R1014 -Portrayal of VTS Information and Data
4. 1105 - Shore side portrayal ensuring harmonisation with e-Navigation related information
5. 1110 - Use of Decision Support Tools for VTS Personnel
6. V 145 - Inter-VTS Exchange Format (IVEF) Service
7. G1130 - VTS-information exchange with allied or other services

## Operational

1. R0127 (V-127) - VTS Operations
2. G1141 - Operational Procedures for VTS
3. G1089 - Provision of a VTS
4. R1012 -VTS Communications
5. G1132 - VTS Voice Communications and Phraseology
6. G1131 - Setting and measuring VTS objectives
7. 1102 - VTS Interaction with Allied or Other VTS Services
8. 1070 - VTS Role in Managing Restricted or Limited Access Areas
9. 1083 - Standard Nomenclature to identify and refer to VTS centres
10. 1050 - Management & Monitoring of AIS Information
11. 1082 An Overview of AIS

## training & certification

1. R0103 (V-103) Training and Certification of VTS Personnel
2. G1156 - Recruitment Training and Certification of VTS Personnel
3. V 103-1 - VTS Operator Model Course
4. V 103-2 - VTS Supervisor Model Course
5. V 103-3 - OJT Model Course
6. V 103-4 - OJTI Model Course
7. V 103-5 - The Revalidation Process for VTS Qualification and Certification
8. 1014 - Accreditation and Approval Process for VTS Training
9. 1017 - Assessment of Training for VTS personnel
10. 1027 - Simulation in VTS Training
11. G1045 - Staffing Levels at VTS Centres

## Quality manageent & auditing

1. O-132 Quality Management for aids to navigation authorities
2. R1013-Auditing and Assessing VTS
3. 1101 - Auditing and Assessing VTS