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| IALA Guideline |
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Guideline XXXX

COMPETENCIES ~~TRAINING NEEDS~~ FOR PLANNING AND IMPLEMENTING VTS

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Revisions to this IALA Document are to be noted in the table prior to the issue of a revised document.

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# DOCUMENT PURPOSE

The purpose of the guidance is to assist Contracting Governments, Competent Authorities and VTS authorities [providers] in establishing, planning and implementing VTS effectively in a manner consistent with their international obligations under SOLAS and to conform with IALA Standards.

In particular, the guidance provides a mechanism to ensure those responsible for the planning and implementation are competent in the practices described in *Recommendation O119 - Establishment of VTS* and associated Guideline 1150 - Establishing, Planning and Implementing VTS*.*

* Recommendation 0119 specifies the practices associated with the establishment of VTS as prescribed in SOLAS regulation V/12 (Vessel Traffic Services).
* Guideline 1150 provides the framework to assist authorities implement practices specified in Recommendation 0119, including arranging for establishing, planning and implementing VTS.

For the purpose of this guidance, competence is defined as having the necessary knowledge, skills and capability to effectively and efficiently establish, plan and implement VTS to expected and recognised standards.

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| IALA Guideline XXXX *– Competencies ~~Training Needs~~ for Planning and Implementing VTS* describes knowledge, skills, and capabilities to assist those responsible implementing the practices described in Recommendation 0119 for establishing, planning and implementing VTS and associated Guideline 1150.  Guideline XXXX is informative in nature and is to encourage best practice. It is not necessary to conform to in order to claim compliance to Recommendation 0119. |

# INTRODUCTION

The IMO Convention for the Safety of Life at Sea (SOLAS) 1974 - Chapter V (Safety of Navigation), Regulation 12 provides for Vessel Traffic Services and states that:

*“Contracting Governments undertake to arrange for the* ***establishment of Vessel Traffic Services*** *where, in their opinion, the volume of traffic or the degree of risk justifies such services”.*

Under the general provisions of treaty law and of IMO conventions, States are responsible for promulgating laws and regulations and for taking all other steps which may be necessary to give those instruments full and complete effect so as to ensure safety of life at sea and protection of the marine environment.

IMO Resolution A.857(20) Guidelines for Vessel Traffic Services invites Governments to take account of the annexed Guidelines when developing, implementing and operating vessel traffic services, specifically setting out the responsibilities of Contracting Governments for ***planning and implementing*** a vessel traffic service.

IALAG1150 provides the framework to assist authorities implement practices specified in IALA R0119. This includes arranging for establishing, planning and implementing VTS.

# OVERVIEW

The implementation of VTS to improve the safety and efficiency of navigation, safety of life at sea and the protection of the marine environment, and its ongoing operation, is a significant investment.

Careful planning should be undertaken to ensure VTS is implemented effectively, achieves its objectives and is sufficiently resourced and funded on an ongoing basis.

A key factor in achieving this is ensuring that those involved in the planning and implementation are familiar with the international framework for VTS and competency to implement the practices specified in RO119 and associated G1150.

The key areas include:

| **Activity** | | **Key Components** |
| --- | --- | --- |
| **ESTABLISHING** |  | How to give effect to regulation V/12 of the Convention?  *International Framework and Obligations*  *National law* |
| **PLANNING** |  | How to plan for VTS?  *Comprehensive information gathering and analysis process to determine the need for VTS, the feasibility of operating VTS and the design necessary to achieve the needs identified* |
| **IMPLEMENTING** |  | How to implement VTS?  *Project Management*  *Procurement*  *Conformance with IMO Resolution A.857(20) and IALA Standards*  *Authorisation* |

# ESTABLISHING



The international framework for establishing VTS includes:

1. International Convention for the Safety of Life at Sea (SOLAS) 1974;
2. IMO Resolution A.857(20) Guidelines for Vessel Traffic Services;
3. IALA Standards; and
4. National Law.

Another key consideration in establishing VTS is setting up the governance framework to ensure the effective implementation and on-going delivery of VTS and that the authority is effectively administering its obligations under SOLAS such as:

* Promulgating laws and regulations and for taking all other steps which may be necessary to give effect to SOLAS regulation V/12 (Vessel Traffic Services);
* Implementing a regulatory framework for establishing and operating VTSs in accordance with relevant international conventions and IMO instruments, IALA standards and national law;;
* Appointing and authorizing a competent authority for VTS;
* Authorizing VTS authorities to operate VTS and ensuring that VTS training is approved and VTS personnel are certified;
* Ensuring appropriate control and monitoring mechanisms are in place to demonstrate the authority is effectively administering its obligations.

Further guidance is provided in IALA Guidelines:

* G1115 – Preparing for an IMO Member State Audit Scheme (IMSAS) on Vessel Traffic Services;
* G1101 – Auditing and Assessing VTS.

Knowledge and competence required to establishing VTS includes:

| **Table 1 - The international framework for establishing VTS includes** | |
| --- | --- |
| **Subject** | **Ability/ Competency** |
| 1. **International Convention for the Safety of Life at Sea (SOLAS) 1974** | Sound understanding of the general provisions of treaty law and of IMO Conventions. *(Note - Kevin Gregory to provide competency matrix/framework for use or words Sound, Good, etc).*  In particular, the responsibility of States for promulgating laws and regulations and for taking all other steps which may be necessary to give those instruments full and complete effect so as to ensure safety of life at sea and protection of the marine environment.  Good understanding of:   * SOLAS Chapter V:   + Regulation 12 – Vessel Traffic Services   + Regulation 10 - Ships' routeing   + Regulation 11 – Ship reporting systems * MARPOL * XXXX   Thorough understanding of the objective, principles, scope, responsibilities and capacity building aspect of the IMO Member State audit scheme as it relates to VTS, including:   * Resolution A.1067(28) on the Framework and Procedures for the IMO Member State Audit Scheme * Resolution A.1070(28) on IMO Instruments Implementation Code (III Code) |
| 1. **IMO Resolution A.857(20) Guidelines for Vessel Traffic Services** | Thorough understanding of IMO Resolution A.857(20) Guidelines for Vessel Traffic Services. In particular:   * The responsibilities to ensure a legal basis for the operation of a VTS is provided for and that the VTS is operated in accordance with national and international law. * Establishing appropriate standards for shore and offshore based equipment. * Ensuring the VTS Authority is provided with sufficient staff, appropriately qualified, suitably trained and capable of performing the tasks required; * Establishing appropriate qualifications and training requirements for VTS operators; and * Instructing the VTS Authority to operate the VTS in accordance with relevant IMO Resolutions. |
| 1. **IALA Standards** | * Thorough understanding of the principal components to the IALA document structure relating to VTS including: **Standards** relating to VTS, that is:   + 1040 - Vessel Traffic Services;   + 1010 – Marine Aids to Navigation Planning and Service Requirements   + 1050 - Training and Certification; and   + 1070 – Information Services. * **Recommendations** – In particular, the practices that shall be carried out in order to comply with a Recommendation * **Guidelines** – In particular, how to implement practices normally specified in a Recommendation * **Model Courses** - training documents which define the level of training and knowledge needed to reach levels of competence defined by IALA. |
| 1. **National Law** | A broad understanding of national law, including the regulatory, compliance and enforcement framework. In particular, sufficient understanding and skills to:   * Ensure that a legal basis for the operation of a VTS is provided for and that the VTS is operated in accordance with national and international law * Ensure that VTS Authorities are appointed and legally empowered; * Instructing the VTS Authority to operate the VTS in accordance with relevant IMO Resolutions * Establishing a policy with respect to violations of VTS regulatory requirements, and ensuring that this policy is consistent with national law.   *<Possibly provide web links to the regulatory frameworks adopted by some countries as examples in an Annex to the guideline>* |
| 1. **Governance** | A thorough understanding of the administration’s policies relating to VTS need to be acquired. Key considerations include establishing policy frameworks for:   * Training and Certification * Compliance and Enforcement * Authorising VTS Providers * Auditing VTS. A proper quality assurance system should be implemented to ensure policies issued by the competent authority are adhered to by the VTS provider and the approved VTS training organization. * An ongoing evaluation of the VTS in terms of meeting its objectives and addressing the reasons for which it was implemented. |

# PLANNING AND IMPLEMENTING

The implementation of VTS to improve the safety and efficiency of navigation, safety of life at sea and the protection of the marine environment, and its ongoing operation, is a significant investment. Careful planning should be undertaken to ensure VTS is implemented effectively, achieves its objectives and is sufficiently resourced and funded on an ongoing basis.

IALA *Guideline 1150 – Establishing, Planning and Implementing VTS* recommends that, when planning and implementing VTS, a project management approach be adopted to ensure the major deliverables, assumptions and constraints are clearly documented. In particular, the Guideline states that:

* Relevant international guidance prepared and published by appropriate international organizations regarding project management should be taken into account (for example ISO 21500, Guidance on Project Management - an international standard issued by the International Organization for Standardization (ISO).

**OR**

* Where there are national requirements for project management, these should be used.

IALA Guideline 1150 highlights the five project management phases and the key areas for consideration as they relate to VTS:

1. **Initiating** - This marks the beginning of the project. The goal of this phase is to define the proposed implementation of a VTS at a broad level and its feasibility to address the issues and problems associated with the volume of traffic and degree of risk in the waterway.
2. **Planning** - During this phase, the scope and goals of the project are defined and a project management plan is developed. It involves identifying the cost, quality, available resources, and a realistic timetable.
3. **Implementing** - This is the phase where deliverables are developed and completed.
4. **Controlling** – This phase is invariable carried out simultaneously with Phase 3 (Implementing), thereby ensuring that project objectives and deliverables are met. This phase is about measuring project progression and performance and ensuring that everything happening aligns with the project management plan.
5. **Closing** - The closing processes are used to formally establish that the project phase or project is finished.

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| Authorities should ensure that those responsible for the planning and implementing VTS are competent in project management and have the necessary knowledge, skills and capability to effectively and efficiently establish, plan and implement VTS to recognised standards. |

Knowledge and competence required when planning and implementing VTS include:

| **Table 2 – Planning and implementing VTS** | |
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| **Phase** | **Ability/ Competency** |
| 1. **Initiating** | Thorough knowledge of the principles and practices associated with:   * **Data Gathering / Risk Assessment** - To support this phase a process of comprehensive information gathering, and analysis is inevitably involved to enable relevant issues and problems in the maritime area to be identified, assessed, defined, and analysed.  |  | | --- | | IALA recommends the use of the IALA risk management toolbox for assessing the risks in waterways when initiating and planning a VTS. Further information is available at:   * Recommendation 1002 Risk Management for Marine Aids to Navigation. * Guideline G1123 – The Use of IALA Waterway Risk Assessment Programme (IWRAP MkII). * Guideline 1124 - The Use of Ports and Waterways Safety Assessment (PAWSA) MK II Tool. * Guideline G1138 – The use of the Simplified IALA Risk Assessment Method (SIRA). |  * **Preparing a Feasibility Study** – This document establishes whether a VTS is a viable solution to address the issue or problem. * **Preparing a Business Case** - This document identifies the need for a VTS, providing justification for implementing a VTS, including evaluation of the benefits, cost and risk of alternative options and provides a rationale for the preferred solution. |
| 1. **Planning** | Conversant with IALA Standards relating to VTS, the national framework for VTS and processes for demonstrating compliance with IALA Standards, Recommendations, Guidelines and Model Courses related to the implementation and operation of VTS as available at https://www.iala-aism.org/product/s1040-vessel-traffic-services/  Thorough knowledge and of the principles and practices associated with preparing project management documentation, including:   * **Project plans** – identifies the project timeline, including the phases of the project, the tasks to be performed, and possible constraints (for example, financial budgets, resourcing etc). * **Functional requirements** – Defining the operational behaviours and functions the VTS is to accomplish to achieve its objectives. * **Risk plans** - identifies anticipated risks and issues that may cause potential quality roadblocks and to mitigate those risks. * **Communication plans** - to establish the appropriate level of communication with stakeholders. * **Procurement plans** - the purchasing requirements to meet the needs of the proposed VTS. * **Acceptance plans** – to identify the tasks that need to be completed to implement a VTS and the criteria that must be met before the VTS is declared operational. |
| 1. **Implementing** | Management skills to coordinate and direct project resources to   * Meet the objectives and deliverables described in the project plan * Manage the financial and resourcing aspects of the project. |
| 1. **Controlling** | Project monitoring and controlling skills to keep the project on track by ensuring that the project remains within scope, on time and on budget so that the project proceeds with minimal risk. |
| 1. **Closing** | Management skills to close out the implementation, including signing off that the final deliverables of implementing the VTS have been met.  Auditing skills to authorise a VTS under national law in accordance with relevant international conventions and IMO instruments, IALA standards. |