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| IALA Guideline |

GXXX

VTS Management [working title]

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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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# INTRODUCTION

An efficient and effective Vessel Traffic Service (VTS) relies upon successfully organizing human resources, equipment, systems and facilities as well as the interactions with all parties involved.

Recognising that VTS providers operate under different environments (for example, VTS as a component of a large department/organisation, or VTS as a standalone entity) the regulatory and management framework for a particular VTS provider may vary. Management responsibilities may be delegated to one person or shared between more than one person. The cooperation of all people involved is required to ensure a smooth and consistent operation.

For the purpose of this guidance VTS management is defined as undertaking activities appropriate to achieving the purpose and operational objectives set for the VTS. These activities may involve, among others, organizing the human, financial, logistic, and technical resources.

Good management practices are vital to achieving the obligations of the VTS provider described in paragraph 5.3 of IMO resolution A.XXX(XX) Guidelines for Vessel Traffic Services:

.1 ensure the VTS conforms with the regulatory framework set by the Competent authority for VTS;

.2 set operational objectives for the VTS that are consistent with improving the safety and efficiency of ship traffic and protection of the environment. The objectives set should be routinely evaluated to demonstrate they are being achieved;

.3 ensure that appropriate equipment, systems and facilities for the delivery of VTS are provided;

.4 ensure that a VTS is adequately staffed and that VTS personnel are appropriately trained and qualified; and

.5 ensure that information regarding requirements and procedures of the VTS and the categories of ships required to participate in the VTS are promulgated in appropriate nautical publications.

While using this Guideline existing IALA standards, recommendations, guidelines and model courses should be kept in mind at all time. Specifically the guidance on setting and measuring VTS objectives, and on establishing, planning and implementing VTS should be taken into consideration prior to implementing management processes. The IALA VTS Manual provides a source of reference of all IALA documents related to VTS <weblink>.

# DOCUMENT PURPOSE

The purpose of this document is to provide guidance on implementing management processes to assist VTS providers ensure the objectives set for the VTS are met as described in IMO Resolution A.XXX(XX), conform to IALA Standards relating to VTS and any additional requirements set by the competent authority for VTS.

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| This Guideline is associated with all IALA Standards relating to VTS, and their associated Recommendations and Guidelines. This guideline is informative and reflects best practices. To demonstrate compliance with these recommendations the provisions of this Guideline do not need to be implemented. |

# PRINCIPLES OF MANAGEMENT PROCESSES

Management is described as undertaking the activities appropriate to achieving defined purposes and objectives by the use of human and other resources. The following principles are indicative of those that should be considered when applying management processes:

* Clear, transparent and unambiguous
* Agile
* Realistic
* Human-centred
* Aimed at the objectives
* Strategically planned
* Consistent

VTS providers may consider using the PLAN -> DO -> CHECK -> ACT (PDCA) cycle when applying management processes. This four-step model assists with managing business processes and ensures a continuous process of improvement. It helps to identify goals and plan actions, deploy the means to achieve them, evaluate the results, and finally check what adjustments might be necessary. The model is designed to operate at all levels and can be applied to all processes.

 The PDCA cycle includes:

1. Planning: investigating needs, identifying goals and determining courses of action;
2. Doing/organizing: implementing courses of action, coordinating resources, motivating and directing people.
3. Checking: monitoring and evaluating results, determining adjustments and improvements.
4. Act: implement improvements and adjustments.

The PDCA cycle is repetitive and provides an environment of continuous improvement.

Table 1 below describes management activities in the PDCA cycle and sets out 2 VTS examples.

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| --- | --- | --- | --- |
| **STEPS** | **CONTENT** | **MANAGEMENT ACTIVITY EXAMPLE 1**  | **MANAGEMENT ACTIVITY EXAMPLE 2** |
| PLAN | Identification of the goals and what is necessary to achieve them | Set VTS operational objectives and determine key performance measures  | Determine staffing levels |
| DO | Organization and implementation of resources  | Implement processes and procedures to achieve the VTS operational objectives | Recruit and train VTS personnel |
| CHECK | Evaluation of the results | Assess key performance measures to ensure VTS objectives are being met | Review staffing levels |
| ACT | Improvement and adjustment | Adjust operational processes and procedures | Reorganize staffing levels |

# MANAGEMENT ACTIVITIES

The VTS provider should ensure management activities are in place to ensure the provision of VTS is consistent with their responsibilities as defined in A.XXX(XX) and any additional requirements identified by their competent authority. Activities associated with the management of a VTS are described below. In planning and organising the management framework, these activities could be allocated to one person or may involve multiple people depending on the structure of the organization. The VTS provider should ensure the management structure is optimised for achieving the objectives of the VTS.

## OPERATIONAL

Operational aspects involve managing and co-ordinating the day-to-day operations and the objectives set for the VTS.

Associated activities may include:

* managing day-to-day activities associated with the provision of VTS;
* ongoing evaluation of activities the VTS provides which may impact workload or staffing levels;
* maintaining VTS operational procedures;
* monitoring and managing the impact of human factors and VTS personnel’s well-being on the VTS operational performance;
* interface with allied services and stakeholders;
* undertake operational needs analysis.

## HUMAN RESOURCES

Human resources aspects involve those related to staffing and human elements within the structure of the VTS.

Associated activities may include:

* establishing policies and processes associated with the selection and recruitment of VTS personnel including the development of job descriptions;
* recruiting VTS personnel considering the VTS staffing levels and selection related aspects such as assessing personal attributes, aptitude testing, assessment of prior learning and satisfying the medical/physical requirements;
* managing employee personnel files (e.g. contracts, hours worked, payroll, sick leave, disciplinary notes);
* managing working schedules and rostering arrangements;
* monitoring the VTS personnel’s well-being;
* managing human factors and workplace ergonomics;
* determining long term staffing needs (e.g. monitoring future retirements).

## TRAINING

Training aspects involve managing and implementing processes to ensure VTS personnel are appropriately trained and qualified.

Associated activities may include:

* planning and coordinating of VTS training (IALA model courses and other training as appropriate)
* determining training needs for VTS personnel;
* Selecting suitable instructors and assessors to deliver VTS centre specific training;
* assessing competencies to determine that VTS personnel are appropriately trained and qualified for their VTS duties;
* undertaking regular VTS performance assessments to ensure that the established competency continues to be met;
* determining training equipment needs;
* maintaining training records.

## TECHNICAL

VTS should be provided with appropriate equipment, systems and facilities to effectively accomplish its objectives.

Associated activities may include:

* identifying appropriate equipment, systems and facilities to meet the needs of the VTS;
* procurement and installation of equipment, systems and facilities including maintenance, life cycle management;
* monitoring availability and performance of equipment, systems and facilities;
* responding to equipment outages and ensuring helpdesk functions are 24/7 available to support the VTS centre;
* ensuring training equipment is provided.

## ADMINISTRATION

Other management activities that support the daily administration of a VTS may include:

* Communication/public relations:
	+ promoting, protecting and building the reputation of the VTS among its stakeholders, the media and the public;
	+ managing media and public relation issues.
* Legal advisory management:
	+ providing legal advice on VTS matters;
	+ providing input on legal VTS matters to the national law/authority.
* Quality/Performance activities:
	+ maintaining quality management system including the preparation and facilitation of VTS audits;
	+ assessing performance measures to ensure VTS objectives are being met and these are regularly reported to management;
	+ routinely evaluating that the VTS operational objectives are being met, and that the problems identified and defined for implementing the VTS have been either mitigated [alleviated] or at least reduced to an acceptable level.
* Governance activities:
	+ ensuring the VTS conforms with the regulatory framework set by the Competent authority for VTS;
	+ monitoring financial resources.

# SELECTION AND RECRUITMENT OF MANAGEMENT

IALA Guideline G1156 on Recruitment, Training and Assessment of VTS Personnel sets out the general framework for the selection and recruitment of VTS personnel.

VTS providers should consider their management structure and the roles required to implement the necessary management processes. Detailed job descriptions assist in defining the desired professional profiles. Further, the VTS provider may also identify other specific entry requirements that are necessary for management roles such as being experienced in VTS operations, or holding VTS V-103 qualifications.

In addition to the entry requirements mentioned in IALA Guideline 1156 other skillsets specifically related to management activities may include:

* Communication skills;
* People (management) skills;
* Agility and ability to perform in stressful and demanding situations;
* Leadership skills;
* Performance management;

# MANAGEMENT COMPETENCIES

The selection and recruitment process will ensure that an individual already possesses the necessary skills and attributes the organisation requires. However, it may be appropriate to undertake a training needs analysis to identify areas whether personnel may benefit from supplementary training to meet the specific requirements of the VTS provider.

Table 2 considers training opportunities that may be relevant to an individual depending on the types of management activities they are responsible for and the competencies required.

1. [General Management Training]

*(space below the table to be kept as necessary)*

| **Subject** | **Training opportunities that may be considered to acquire the desirable knowledge / competencies** |
| --- | --- |
| Understanding VTS operations | VTS training. Undertake formal V103 model courses, as appropriate. |
| VTS centre familiarisation. |
| Introduction to maritime operations and fundamentals of the maritime industry. |
| Emergency Response | Emergency Management. Training to assist with responding to incidents and pollution events including the activation of contingency plans, Business Continuity Plans, etc. |
| Dealing with media enquiries/public relations. |
| Accident investigation and reporting. |
| Leading accident debriefings with the VTS team. |
| Critical incident stress management training |
| People management | Learning techniques to assist in the management of personnel.  |
| Performance management of personnel. Training to evaluate performance, providing feedback, rewarding high performers and managing low performance. |
| Coaching and Mentoring.Learning techniques to assist with the coaching and mentoring of individuals. |
|  |
| Communication. Training to deliver a message to the personnel in a clear manner.  |
| Health and Safety | Elementary first aid, fire prevention and fire-fighting. |
| Personal attributes | Time Management. Learning techniques to improving productivity with approaches that make better use of time. |
| Decision Making. Learning techniques related to decision making. |
| Leadership development. |
| Equipment and technology | Understanding technologies and equipment used in VTSEquipment specific courses.  |
| Project Management | Preparing technical specification document for new or upgrading systems. |
| Regulatory Framework | Understanding international (UNCLOS, IMO Guidelines, IALA Standards) as well as local acts, regulations, laws and delegations. |
| Maintaining Quality Systems | Quality Standards. Training in quality management systems and quality assurance. |
| Assessing Risk in the VTS area | Risk Management. Training related to the identification, analysis and treatment of risk. |
| Specific IALA Risk Management tools such as IWRAP, PAWSA, SIRA |
| Performance | Setting and Measuring operational performance. |

# DEFINITIONS

The definitions of terms used in this 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.

# ACRONYMS

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1. [Figure caption]

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