



# IALA GUIDELINE

## G1156 RECRUITMENT, TRAINING AND CERTIFICATION OF VTS PERSONNEL

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# DOCUMENT REVISION

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

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## 1. INTRODUCTION

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A major factor in the effective delivery of a vessel traffic service (VTS) is the competence and experience of its personnel to:

- provide timely and relevant information on factors that may influence the transit of a ship and to assist on-board decision making;
- monitor and manage traffic to ensure the safety and efficiency of ship movements; and
- respond to developing unsafe situations to assist the on-board decision-making process.

Training and certification for VTS personnel is recognized internationally through the following framework:

- IMO Resolution *A.1158(32) on Guidelines for Vessel Traffic Services* [1]. The Resolution states, inter alia, that:
  - The competent authority for VTS should ensure that VTS training is approved and VTS personnel are certified.
  - The VTS provider should ensure that a VTS is adequately staffed and that VTS personnel are appropriately trained and qualified.
- IALA Standard *S1050 Training and Certification* [2] specifies the practices associated with the training and assessment of VTS personnel. The Standard references normative provisions which are contained in IALA recommendations, covering the following scope:
  - Training and assessment
  - Accreditation, competency, certification and revalidation

## 2. DOCUMENT PURPOSE

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The purpose of this document is to provide guidance on implementing practices associated with the recruitment training and assessment of VTS personnel to ensure that it is developed and harmonized in accordance with the IMO Guidelines for Vessel Traffic Services and the IALA standards, recommendations, guidelines and model courses.

*This Guideline is associated with IALA Recommendation R0103 (V-103) on Training and Certification of VTS Personnel [3]. Recommendation R0103 is a normative provision of IALA Standard 1050 Training and Certification. To demonstrate compliance with this Recommendation the provisions of this Guideline should be implemented.*

Authorities are encouraged to take account of this guidance as a basis for mandatory training in a manner consistent with their domestic legal framework. This may include establishing appropriate qualifications and training requirements to ensure that VTS personnel are certified.

## 3. INTERNATIONAL FRAMEWORK FOR VTS TRAINING

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IMO Resolution *A.1158(32) on Guidelines for Vessel Traffic Services* states that:

- A major factor in the operation of a VTS is the competence of its personnel.
- VTS personnel should only be considered competent when appropriately trained and qualified for their VTS duties. This includes:
  - satisfactorily completing generic VTS training approved by a competent authority;

- satisfactorily completing on-the-job training at the VTS where the personnel are employed;
- undergoing periodic assessments and revalidation training to ensure competence is maintained; and
- being in possession of appropriate certification.

IALA Recommendation *R0103 (V-103) on Training and Certification of VTS Personnel* states and recommends:

- that competent authorities and VTS providers implement and establish VTS training and certification in a standardized and harmonized manner in accordance with the guidelines and model courses developed by IALA; and
- National members and competent authorities for VTS to implement the provisions of this Recommendation and its associated guidelines and model courses on VTS training and certification.

## 4. VTS PERSONNEL

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VTS personnel are individuals that are appropriately trained and qualified in VTS operations in accordance with the relevant model course associated with their functions. They actively contribute to the safe and efficient movement of vessel traffic in conjunction with the bridge team and allied services. Whilst the composition/types of roles for personnel in each VTS may vary, the roles generally consist of:

- VTS operator;
- VTS supervisor;
- VTS manager; and
- On-the-job training (OJT) instructor.

### 4.1. JOB DESCRIPTIONS

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Detailed job descriptions for VTS personnel should be developed focusing on the functions, objectives and responsibilities of the VTS.

### 4.2. PURPOSE OF A VTS

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IMO Resolution *A.1158(32) on Guidelines for Vessel Traffic Services* states that the purpose of VTS is to contribute to safety of life at sea, improve the safety and efficiency of navigation and support the protection of the environment within a VTS area by mitigating the development of unsafe situations through:

- providing timely and relevant information on factors that may influence ship movements and assist onboard decision-making;
- monitoring and managing ship traffic to ensure the safety and efficiency of ship movements.; and
- responding to developing unsafe situations.

### 4.3. VTS OPERATOR

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VTS operators are responsible for establishing and maintaining a vessel traffic image and interacting with vessel traffic.

## 4.4. VTS SUPERVISOR

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The VTS provider may establish VTS supervisor positions, or assign supervisory functions, to assist with managing and co-ordinating the operational activities of the VTS centre.

## 4.5. VTS MANAGER

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The VTS provider may establish a VTS manager position. The VTS manager is responsible for managing and coordinating the activities of the VTS centre on behalf of the VTS provider. In some cases, a VTS manager may have the responsibility for more than one VTS centre and may hold VTS qualifications.

The VTS manager should be familiar with operations in the VTS area, the tasks performed by the VTS personnel, and interactions with allied services and other stakeholders.

## 4.6. ON THE JOB TRAINING INSTRUCTOR

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The VTS provider should have VTS personnel trained as OJT instructors to provide and coordinate local training at the VTS centre (e.g., OJT, adaptation training and updating training). The OJT instructor should have in-depth knowledge of the processes and procedures of the VTS centre(s) where they provide training.

Any trainer delivering and assessing local training at a VTS centre should, as a minimum, hold the IALA *C0103-4 (V-103/4) VTS on-the-job training instructor* [4] qualification, or an equivalent national qualification.

VTS personnel who demonstrate aptitude for training should be encouraged to complete appropriate training to:

- obtain ability and experience in instructional techniques;
- develop and deliver training programmes; and
- assess competence of the training objective(s).

## 5. SELECTION AND RECRUITMENT

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### 5.1. SELECTION PROCESS

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Policies and processes for the selection and recruitment of VTS personnel should be available. This may include minimum entry requirements such as:

- prior skills and knowledge;
- maritime experience and education;
- personal suitability characteristics; and
- medical fitness requirements.

IMO Resolution *A.918(22)* [5] on the IMO standard marine communication phrases recognises the wide use of the English language for international navigational communications and that where language difficulties arise, English should be used as a common language for navigational purposes. Potential candidates should demonstrate using reliable tests they have attained a sufficient level of the language. Every candidate attending a C0103 (V-103) model course should have achieved the International English Language Testing System (IELTS) level 5, or its equivalent.

It is important that a VTS provider assesses the suitability of candidates to perform the required VTS tasks. The selection process may include assessing personal attributes, aptitude testing, assessment of prior learning and satisfying the medical/physical requirements.

#### **5.1.1. PERSONAL ATTRIBUTES**

Personal attributes are an important component of the selection process, and the following elements should be assessed when determining the suitability of a candidate:

- Personality as a prediction of future behaviour
- Behaviour, whereby candidates should at a minimum show an appropriate sense of responsibility, demonstrate independence as well as having a willingness to co-operate with others as part of a team.

#### **5.1.2. APTITUDE/PSYCHOMETRIC TESTING**

The VTS provider should consider testing for personal aptitude, attributes and overall suitability requirements, even if they have previous maritime experience. Different types of tests and evaluations may be used such as:

- interviews;
- written tests;
- practical tests or exercises; and
- psychometric tests.

Assessments should be designed to evaluate the suitability of a candidate within a VTS environment by:

- distinguishing among relevant and irrelevant information (e.g., assess the relative movement of fixed and moving objects);
- combining auditory and visual information;
- demonstrating spatial and situational awareness;
- demonstrating alertness and decisiveness when required;
- carrying out several tasks simultaneously (multi-tasking);
- carrying out routine work without losing situational awareness;
- prioritising and deciding what situations require immediate action;
- show initiative and make decisions whilst working within a framework of standards, regulations and structured procedures;
- working under conditions of stress;
- demonstrating effective participation as a member of a team; and
- demonstrating appropriate communication, literacy (written and oral) and numeracy skills.

To assess the aptitude, attributes and suitability of a candidate, the assistance of specialists may be required to ensure appropriate tests and exercises are in place to complement the interview process conducted by the VTS provider.

#### **5.1.3. MEDICAL/PHYSICAL REQUIREMENTS**

The VTS provider should establish policies on medical and physical requirements which candidates and VTS personnel need to meet such as medical, hearing and vision requirements.

## 5.2. SHIFTWORK

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Candidates may vary in how they cope with shift work depending on their health, fitness, age, lifestyle, and domestic responsibilities.

In the recruitment process, a candidate should be provided with information about the VTS shift work arrangements and procedures. Further, if they are successful, it may be possible to offer work experience to allow the candidate to make an informed decision to whether shift work is suitable for them.

VTS provider should ensure candidates are aware of the established policies and procedures associated with the management of shift rosters and fatigue management.

## 6. TRAINING

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The training, knowledge and skills needed to undertake the duties associated with VTS personnel are defined in the suite of IALA model courses and guidelines. These provide:

- a teaching syllabus that is presented as a series of learning objectives which define the required knowledge, understanding and proficiency; and
- guidance for instructors to assess competency.

### 6.1. RECOGNITION OF PRIOR LEARNING

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Exemptions from a module or subject elements within a VTS model course may be considered depending on the qualifications and training that an individual may already have. The accredited training organization delivering the approved model course should assess the prior learning of a candidate.

*IALA Guideline G1017 Assessment of Training for VTS [6] provides further guidance on the assessment and recognition of prior learning.*

### 6.2. MODEL COURSES

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VTS providers are encouraged to adopt the IALA model courses as part of the basis for mandatory training in a manner consistent with their domestic legal framework.

The training and assessment of VTS personnel should be undertaken in accordance with IALA model courses. The basis of VTS training is set out in the following IALA model courses:

- V-103/1 - VTS Operator training [7]
- V-103/2 - VTS Supervisor training [8]
- V-103/3 - VTS On-the-Job training [9]
- V-103/4 - VTS On-the-Job Training Instructor [10]
- V-103/5 - Revalidation Process for VTS Qualification and Certification [11]

These model courses are intended to provide VTS providers charged with the provision of a VTS with specific guidance on the training of VTS personnel.

### 6.2.1. C0103-1 (V-103/1) VTS OPERATOR TRAINING

The VTS operator course provides details of the subject areas, knowledge and practical competence required to undertake the duties associated with VTS operations. In particular, it provides the curriculum to ensure a student has the requisite knowledge, understanding and proficiency to:

- provide timely and relevant information on factors that may influence the transit of a ship and assist on-board decision making;
- monitor and manage traffic to ensure the safety and efficiency of ship movements; and
- respond to developing unsafe situations to assist the decision-making process on board.

### 6.2.2. C0103-2 (V-103/2) VTS SUPERVISOR TRAINING

The VTS supervisor course provides a qualified VTS operator with the additional knowledge, understanding and proficiency to:

- provide supervision for VTS operations;
- provide leadership; and
- ensure that co-ordination takes place between the VTS, allied services and other port facilities and services.

### 6.2.3. C0103-3 (V-103/3) VTS ON-THE-JOB TRAINING

On-the-job (OJT) training is intended to provide the knowledge, practical competence, and proficiency to perform the day to day operations at a particular VTS centre. The OJT programme should cover areas such as:

- traffic management;
- local knowledge of the VTS area and legislative framework;
- communication co-ordination;
- equipment used at the VTS centre;
- operational and emergency procedures; and
- local publications and documents.

VTS providers should determine when OJT training is undertaken to best meet their operational requirements. For example, OJT training may be completed:

- prior to the trainee attending formal C0103-1 (V-103/1) VTS operator training;
- after a trainee attends formal C0103-1 (V-103/1) VTS operator training; or
- in multiple stages, with some training prior to, and after completing formal C0103-1 (V-103/1) VTS operator training.

### 6.2.4. C0103-4 (V-103/4) VTS ON-THE-JOB TRAINING INSTRUCTOR

The VTS on-the-job training instructor course covers the knowledge and practical competence required of a trainer delivering on-the-job training at the VTS centre.

On completion of this course the student should have the necessary skills to deliver local VTS training (e.g., OJT, adaption training or updating training) at a VTS centre, these include:

- the development and ongoing evaluation of training programmes;
- the instructional techniques used to deliver training programmes;



- the communication skills required to conduct a successful briefing and debriefing;
- assessing the performance of a student against the training objectives; and
- maintaining training records.

#### **6.2.5. C0103-5 (V-103/5) REVALIDATION PROCESS FOR VTS QUALIFICATIONS AND CERTIFICATION**

This course provides a structured means for VTS personnel to reinforce previous VTS training and maintain a certain level of performance and skills in areas or knowledge which are infrequently used. Revalidation training should cover generic and area specific elements of competency.

Upon the successful completion of this course, VTS personnel should have demonstrated the skill, knowledge, and experience to revalidate their VTS qualifications in order to perform their roles effectively and satisfactorily maintain a high level of competence.

### **6.3. APPROVAL OF VTS MODEL COURSES**

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Model courses provided by accredited training organizations should be approved by the competent authority. Approval is the result of an accredited training organization successfully demonstrating that the standards specified in an IALA model course for its implementation, delivery and assessment have been met. The competent authority should conduct an approval process for each individual model course that the accredited training organization seeks to deliver.

*IALA Guideline G1014 Accreditation and Approval Process for VTS Training [12] sets out the process by which a training organization can be accredited to deliver approved VTS training courses.*

A list of training organizations accredited to deliver VTS model courses in accordance with IALA Guideline G1014 are available on the IALA website.

### **6.4. USE OF SIMULATORS**

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Simulators offer an excellent interactive environment where skills and competencies may be practiced and VTS personnel assessed. Wherever practical, simulation exercises should be incorporated into training programmes.

VTS simulation provides a dynamic environment that can be used to train in the operation of equipment, procedural knowledge, responding to developing situations and emergency response. The realism and complexity of the exercises should increase as training proceeds.

Scenarios which rarely occur may also be integrated in simulator training, to improve readiness for such situations.

*IALA Guideline G1027 Simulation in VTS Training [13] contains information about the design and implementation of VTS exercises using a simulator.*

## 7. QUALIFICATIONS FOR INSTRUCTORS AND ASSESSORS

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### 7.1. INSTRUCTORS AND ASSESSORS AT ACCREDITED TRAINING ORGANIZATIONS

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The relevant authorities should determine the qualifications and experience required for instructors delivering model courses at an accredited training organization. Authorities should ensure that instructors and assessors hold appropriate and recognized teaching qualifications and that they are appropriately qualified and experienced for the training being provided and assessing competence. The requirements for such qualifications and experience should be incorporated within the accredited training organizations quality and/or training management systems.

### 7.2. INSTRUCTORS AND ASSESSORS WITHIN VTS PROVIDERS

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The relevant authorities should ensure that instructors and assessors delivering VTS centre specific training (e.g., OJT, adaptation training and updating training) are suitably experienced and appropriately qualified in accordance with the IALA C0103-4 (V-103/4) *VTS On-the-Job Training Instructor Model Course* and/or an equivalent national qualification.

*IALA Guideline G1103 Train the Trainer [14] assists instructors with the preparation of and development of training courses and is aimed at courses delivered at an accredited training organization.*

*IALA V103/4 On-the-Job Training Instructor model course provides a structure to ensure instructors have the knowledge, skill and proficiency to deliver VTS centre specific OJT, adaptation training and updating training.*

### 7.3. INSTRUCTORS

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Any person conducting VTS training should:

- have a detailed understanding of the training programme and objectives of the training being conducted;
- be qualified in the task for which training is being conducted; and
- have practical instructional experience.
- If conducting training with the use of a simulator:
  - have received guidance in instructional techniques involving the use of simulators; and
  - have gained practical and operational experience on the simulator being used.

### 7.4. ASSESSORS

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Any person assessing the competence of VTS personnel during training should:

- have a good level of knowledge and understanding of the competence to be assessed;
- be qualified in the task for which the assessment is being made; and
- have received guidance in assessment methods and practices.

## 8. QUALIFICATION AND CERTIFICATION

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### 8.1. QUALIFICATION

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Qualification is the education, knowledge, understanding, proficiency, skill, experience or any other attribute which the authority has determined desirable for performing the duties of the position. VTS qualifications should be based on the principle that satisfactory results are obtained on completion of the IALA VTS model courses.

VTS personnel should only be considered competent when appropriately trained and qualified for their VTS duties. This includes:

- satisfactorily completing generic VTS training approved by the competent authority;
- satisfactorily completing on-the-job training at the VTS where the person is employed;
- undergoing performance assessment and revalidation training to ensure competence is maintained; and
- being in possession of appropriate certification.

### 8.2. CERTIFICATION

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Certification is the award of a document that confirms that a student has met the requirements for the award of a specific qualification.

### 8.3. VTS MODEL COURSE CERTIFICATE

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A VTS model course certificate is a document awarded by the accredited training organization, to confirm that a student has successfully completed a VTS training course. The course certificate should include:

- the name of the student;
- the country in which it was awarded;
- authorized signature of the accredited training organization;
- the name of the relevant model course;
- unique identification information;
- the date of award; and
- the unique course certificate number.

VTS model course certificates should be in the official language or languages of the awarding country. If the language is not English, then a translation should be available.

The use of the IALA logo on a VTS model course certificate recognises that the competent authority is a member of IALA and has approved the delivery of that VTS model course by the accredited training organization in accordance with IALA Guideline *G1014*.

## 8.4. RECOGNITION OF CERTIFICATES

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A competent authority may choose to recognise the VTS course certificates issued by other competent authorities where:

- the certificate has been issued in accordance with Recommendation *R0103 on Training and Certification of VTS Personnel*; and
- they are satisfied with the training arrangements of the other country or state concerned.

## 8.5. VALIDITY

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A qualification should remain valid until either:

- an assessment indicates that the holder has fallen below the required competency and proficiency set by the relevant authority;
- there is a break in service, for any reason, for a period defined by the relevant authority; or
- the maximum time period for undertaking recurrent training has been reached.

## 8.6. TRAINING RECORDS

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The VTS provider should maintain training records for VTS personnel. These records should include details of (but not be limited to):

- OJT for each VTS area and VTS centre at which the holder is employed, and the date the training was completed;
- VTS model courses successfully completed, including the name of the accredited training organization where the course was undertaken and copies of the course certification;
- regular assessment records and the results thereof;
- revalidation records; and
- any other relevant course or training successfully completed (e.g., first aid training).

Authorities may consider issuing a VTS certification log as a means to formally record course certificates and training activities of VTS personnel. The log should include (but not be limited to):

- the holder's full name;
- the country in which it was awarded;
- date of birth and/or unique identification information;
- the date of issue;
- a unique certificate number; and
- brief details of the VTS qualifications held, including the certificate number.

## 9. MAINTAINING QUALIFICATIONS

### 9.1. REVALIDATION PROCESS

The generic term “revalidation process” is used to describe the process to maintain a VTS qualification. The process ensures that holders of a VTS qualification maintain a satisfactory level of operational performance in order to retain, develop and increase their competency.

The VTS provider should implement a process for revalidation to ensure competence is maintained. For example, revalidation of a VTS qualification is required when:

- the VTS certification is approaching its expiry date;
- there are changes in the physical environment of the VTS, or tasks which necessitate additional training for VTS personnel; or
- there is a break in service, unsatisfactory operational performance or other circumstances leading to a reduced level of competence;

The flowchart at figure 1 describes components of the revalidation process:

- Recurrent training<sup>1</sup> is a structured training programme carried out at regular intervals to reassess the competency and proficiency of VTS personnel. Refer to section 9.2.
- Adaptation training is carried out when significant changes are expected, such as changes associated with equipment, regulations, operational procedures etc. Refer to section 9.3.
- Updating training is tailor made programme based on a training needs analysis that identifies additional training is required. Refer to section 9.4.
- Performance assessments on VTS personnel are undertaken to ensure that the established standards continue to be met. These should be carried out at regular intervals, at least annually. See section 9.5.

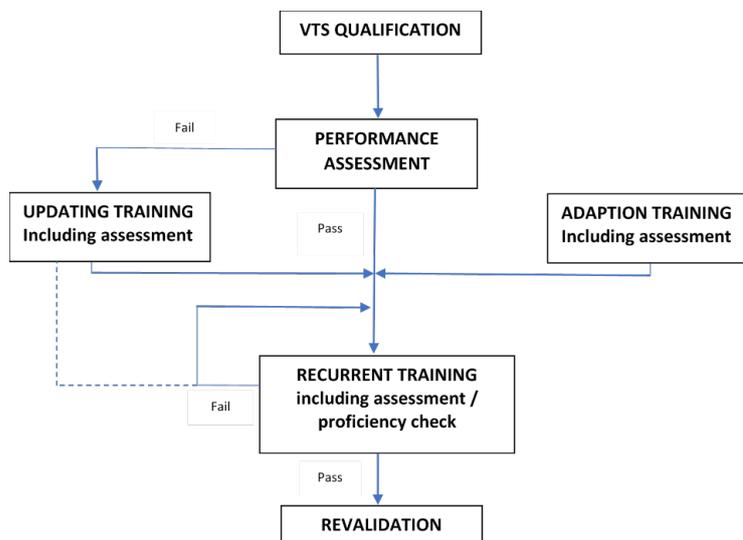


Figure 1 Process for the revalidation of VTS qualifications

<sup>1</sup> Recurrent training may also be referred to by some authorities as “refresher training”.

## 9.2. RECURRENT TRAINING

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Recurrent training provides a mechanism to reassess the competency and proficiency of VTS personnel through a structured and standardized programme.

The course content should be based on the core elements of IALA Model Course *C0103-1 (V-103/1)* and any specific requirements to meet national or local needs. This training should be carried out at regular intervals. Recurrent training should be conducted by an accredited training organization or by VTS provider with the approval of the relevant competent authority.

Successful completion of a process of recurrent training is necessary to facilitate the revalidation of VTS qualifications.

The competent authority should determine the frequency of the recurrent training programme. It is recommended that recurrent training should be carried out at intervals not exceeding five years.

## 9.3. ADAPTATION TRAINING

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Where significant changes to VTS operations are expected, such as changes associated with equipment, regulations, operational procedures, adaptation training should be completed, and where possible, before the change(s) takes place.

Adaptation training should be developed on a case-by-case basis taking account the nature of the specific change(s). Consideration should be given to:

- completing a needs analysis to determine the nature of the planned change in order to design, develop and implement the required training;
- preparing a structured programme with detailed lesson plans and clear learning goals based on the results of the training needs analysis; and
- identifying who would be best positioned to develop and deliver adaptation training. This may be in-house, a training organization, a service provider (e.g., company installing VTS equipment) or a combination of various parties.

## 9.4. UPDATING TRAINING

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Updating training provides a structured means to ensure individual personnel maintain competency and proficiency in circumstances such as:

- after a break in service;
- an unsatisfactory performance assessment or proficiency check;
- upon request; or
- when deemed necessary by the authority.

After an event that triggers a requirement for updating training, a training needs analysis should be undertaken to determine any performance gaps and identify training goals and the associated levels of performance to be achieved. The results from the analysis will form the basis of the update training programme.

Updating training will be individually tailored covering generic and/or area specific elements of competency.

After a break in service of three months or more, a VTS provider should consider undertaking a training needs analysis to identify whether updating training is required, taking into account the complexity of the VTS area and

their duties. Prior to the updating training commencing, VTS personnel should be provided with the objectives of the training programme, the duration and format of the training.

## 9.5. PERFORMANCE ASSESSMENT

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It is essential that once VTS personnel are qualified and certified, their performance is observed and monitored to ensure that the established competency continues to be met.

Performance assessments of VTS personnel should be carried out at regular intervals, at least annually, to ensure their qualifications continue to be met. This regular assessment may take the form of performance review or appraisal.

Where the qualifications standards set by the relevant authority are not being met, then updating training with these individuals or any other measure as deemed appropriate should be considered to help maintain their qualifications.

## 10. CONTINUAL PROFESSIONAL DEVELOPMENT

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VTS providers may consider developing an ongoing continual professional development (CPD) programme to ensure that the standard of training is maintained.

CPD may consist of:

- Review and analysis of lessons learned from local VTS operations.
- Regular updates of regulatory, procedural and technological developments.
- Continual development through familiarization trips on vessels with pilots or other stakeholders.
- Visits to allied services, adjacent VTS centres or other similar organizations.
- Attendance and participation in relevant emergency or procedural exercises.

Further, VTS personnel should be encouraged to take responsibility for their own personal continued professional development as a core component of their role.

## 11. VTS CAREER PROGRESSION

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The formal recognition of VTS qualifications provides the foundation for a professional framework similar to that adopted by the shipping and pilotage industry. The regular revalidation of these qualifications seeks to create quality standards comparable to other professions.

VTS personnel have the scope for career progression by making use of the skills and experience gained, in either VTS, or other maritime environments (see example in Figure 2).

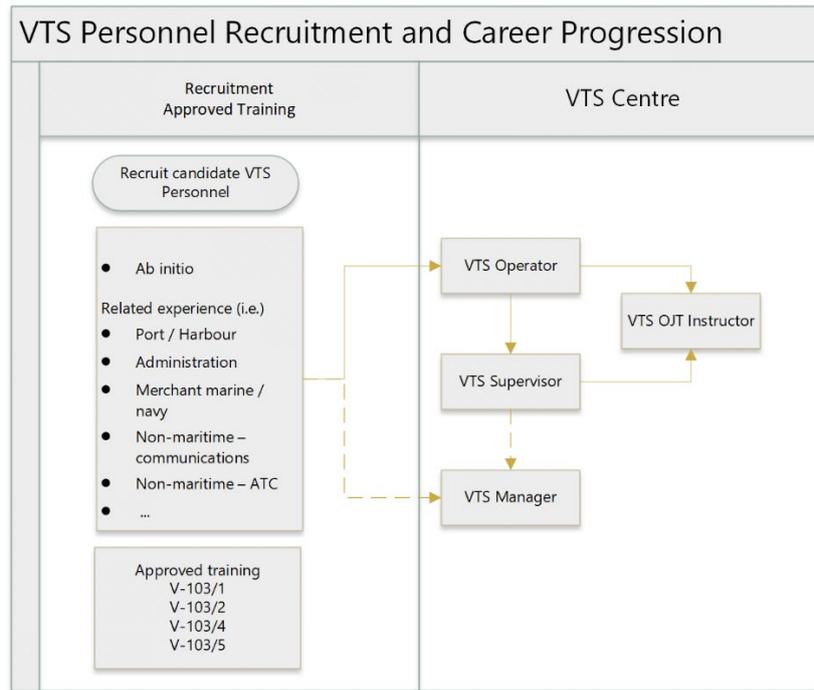


Figure 2 Career progression

## 12. 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.

In addition, for the purpose of this Guideline, the following definitions and clarifications have been used:

*Accredited training organization* is an organization that the competent authority or an authority designated and approved by the competent authority, grants recognition to a training organization for demonstrated ability to meet predetermined criteria for established standards.

*Approved VTS training course* is the result of an accredited training organization successfully demonstrating that the standards specified in an IALA model course for its implementation, delivery and assessment have been met.

*Adaptation training* is carried out whenever significant changes are expected or when changes have been made, concerning equipment, regulations, operational procedures or any other matter which is relevant to the performance of VTS personnel.

*Competent authority* means the entity made responsible by the Government for vessel traffic services.

*Competence* is having the knowledge, skills, attitude and personal attributes necessary to safely, effectively and efficiently carry out the functions or sub-functions assigned to a specific VTS position.

*On-the-job training (OJT)* is training and familiarization at the VTS centre at which the person will be employed. It includes training on the purpose of the VTS, the VTS procedures, facilities and equipment used as well as the local geography and appropriate regulations and other procedures.

*Qualification* is the education, knowledge, understanding, proficiency, skill, experience or any other attribute which the competent authority and/or the VTS authority has determined desirable for performing the duties of the



relevant position. VTS qualifications should be based on the principle that satisfactory results are obtained on completion of the IALA VTS model courses.

*Recurrent training* is the training that should be carried out at regular intervals and is part of a structured training programme thereby enabling continual professional development and resulting in the maintenance of the VTS qualification.

*Revalidation process* is the process for the maintenance of a VTS qualification contained within a VTS certification log. It ensures that holders of a VTS qualification, develop, increase and retain their competency in order to maintain a satisfactory level of operational performance.

*Simulator training* is the simulation of operational events, practices and procedures to instruct trainees and assess their ability to demonstrate their levels of competence.

*Updating training* is tailor made training following a training needs analysis indicating that member(s) of VTS Personnel need additional training. Updating training may be required after a break in service, unsatisfactory operational performance or other circumstances leading to a reduced level of competence.

*VTS provider* means the organization or entity authorized by the Government or competent authority to provide a vessel traffic service.

*VTS certification log* is a record of certificates and endorsements awarded to VTS personnel during their VTS career.

*VTS endorsement* is a record in the certification log entered by a competent authority, VTS authority or an accredited training organization after the student has successfully completed any model course associated with IALA Recommendation R0103, as well as meeting any specific requirements of the competent authority. The VTS endorsement entitles the authorized holder to perform the functions for which the endorsement(s) have been made.

*VTS model course certificate* is a document awarded by the accredited training organization, to confirm that a student has successfully completed a VTS training course.

*VTS personnel* means persons performing tasks associated with vessel traffic services, trained in vessel traffic service operations and appropriately qualified.

## 13. ABBREVIATIONS

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CPD	Continual professional development
IELTS	International English Language Testing System
IMO	International Maritime Organization
OJT	On-the-job training
VTS	Vessel traffic service or Vessel traffic services (dependent on context)

## 14. REFERENCES

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- [1] IMO. Resolution A.1158(32) on Guidelines for Vessel Traffic Services
- [2] IALA. Standard S1050 Training and Certification
- [3] IALA. Recommendation R0103 (V-103) Training and Certification of VTS Personnel
- [4] IALA. Model Course V-103/4 - VTS On-the-Job Training Instructor
- [5] IMO. Resolution A.918(22) IMO Standard Marine Communication Phrases
- [6] IALA. Guideline G1017 Assessment for Recognition of Prior Learning in VTS Training



- [7] IALA. Model Course V-103/1 - VTS Operator training
- [8] IALA. Model Course V-103/2 - VTS Supervisor training
- [9] IALA. Model Course V-103/3 - VTS On-the-Job training
- [10] IALA. Model Course V-103/4 - VTS On-the-Job Training Instructor
- [11] IALA. Model Course V-103/5 - Revalidation Process for VTS Qualification and Certification
- [12] IALA. Guideline G1014 Accreditation and Approval Process for VTS Training
- [13] IALA. Guideline G1027 Simulation in VTS Training
- [14] IALA. Guideline G1103 Train the Trainer