

IALA Model Course

International Association of Marine Aids to

Navigation and Lighthouse Authorities

**V-103/5**

**On**

**Vessel Traffic Services**

**Revalidation Process**

**Edition 1**

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**Document Revisions**

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

**Date Page / Section Revised Requirement for Revision**

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**Foreword**

The International Association of Marine Aids to Navigation and Lighthouse Authorities has been associated with Vessel Traffic Services since 1955 and recognises the importance of the training and education of VTS personnel to the development of efficient Vessel Traffic Services worldwide.

Taking into account the International Convention on Standards of Training, Certification and Watchkeeping of Seafarers, 1978, as amended in 1995 (STCW Convention), the Seafarer’s Training, Certification and Watchkeeping Code (STCW Code) and STCW 95 Resolution 10, IALA has adopted Recommendation V-103 on Standards of Training and Certification of VTS personnel.

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

The model courses developed by IALA for VTS personnel are:

• Model Course V-103/1 - VTS Operator Training

• Model Course V-103/2 - VTS Supervisor Training

• Model Course V-103/3 - VTS On-the-Job Training

• Model Course V-103/4 - VTS On-the-Job Training Instructor

• Model Course V-103/5 - VTS Revalidation Process

These model courses are intended to provide Competent Authorities, Accredited Training Organisations and other appropriate authorities charged with the provision of vessel traffic services with specific guidance on the training of VTS personnel. Assistance in implementing any model course may be obtained through IALA at the following address:

The Secretary General,

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France internet [www.iala-aism.org](http://www.iala-aism.org/)

**PART A – COURSE OVERVIEW**

**2 INTRODUCTION**

**2.1 Purpose of the Model Course**

This Model Course is intended to provide guidance to Competent Authorities responsible for the provision of Vessel Traffic Services on the Revalidation Process of VTS Personnel.

IMO Resolution A.857(20) states that once suitably qualified and trained employees are performing on the job, their performance must be observed and monitored to ensure that it continues to meet the established standards.

The generic term, Revalidation Process, is used within this Model Course to describe the different steps in the process of the maintenance of a VTS qualification. The Revalidation Process ensures that holders of a VTS qualification maintain a satisfactory level of operational performance in order to retain, develop and increase their competency. In turn, this will assist in ensuring the safety and efficiency of navigation in a designated VTS area.

To ensure the continued maintenance of a VTS qualification, the Competent Authority should implement a process of Revalidation Training. Revalidation Training consists of periodic Recurrent Training. This should be supplemented by Adaptation Training and/or Updating Training as deemed necessary. Each type of training should include a relevant method of assessment.

In addition to the Revalidation Process, Competent Authorities and/or VTS Authorities should encourage VTS personnel to take responsibility for their own continued professional development as a core component of their role.

Completion of the Revalidation Process will result in the maintenance of a VTS qualification and the revalidation of VTS Certification Log.

Competent Authorities are encouraged to adopt this Model Course as part of the basis for mandatory training in a manner consistent with their domestic legal framework.

**2.2 Use of the Model Course**

In accordance with the definition of training contained within IMO Resolution A.857(20), recurrent, adaptation and updating training will combine instruction and practice to provide VTS personnel with the skills, knowledge and experience necessary to perform in their present/future jobs both efficiently and effectively.

Further, the revalidation process, encompasses the definition of Refresher training within IMO Resolution A.857(20) through ensuring that training is carried out to maintain a certain level of performance, skills in areas or knowledge which are infrequently used and where consequence of non-performance is great.

IALA Recommendation V-103 on the Standards for Training and Certification of VTS Personnel recommends that an assessment of the performance of each member of VTS Personnel should be carried out by a VTS Supervisor/Manager at regular intervals, preferably annually, to ensure that the standards set by the Competent Authority for operator qualifications are continuing to be met.

This regular assessment may take the form of performance monitoring/review or appraisal. If, as a result of the regular assessment, the standards set by the Competent Authority are not met then a process of Updating Training should be followed.

To ensure the continuous professional development of VTS personnel, revalidation training should be undertaken to ensure that holders of VTS qualifications maintain a satisfactory level of operational performance.

Revalidation training consists of three separate processes:

• **Recurrent training** 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.

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

• **Updating training** is custom made training designed 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.

**2.3 Revalidation process** [KG1]

VTS Qualification

Routine Revalidation

Non Routine Revalidation

Recurrent Training

Updating Training

Adaptation Training

Satisfactory Unsatisfactory Satisfactory Unsatisfactory

Revalidation of VTS Certification Log

**PART B - DELIVERY OF THE MODEL COURSE**

**1 INTRODUCTION**

**2 IMPLEMENTATION**

To deliver a programme of recurrent[PS2] training effectively, consideration should be given to the availability and the most effective use of:

 Qualified instructors,

 Support staff,

 Classrooms, and other relevant facilities,

 Equipment, which may include simulators,

 Textbooks and other technical/professional papers,

 Other sources of information to support the training process (such as the internet),

 Other relevant resources[KG3]

 References to V-103/1 and/or V-103/3 courses

**3 VALIDATION**

This Model Course has been prepared and validated by a group of experts in VTS training, operations and technology. This Model Course has been approved by the IALA VTS Committee and IALA Council.

**4 TRAINING PROGRAMME**

**4.1 General principles**

Programmes of recurrent, adaptation and updating training should be comprehensively planned and should consist of a structured scheme of work combined with detailed lesson/training plans for each subject area providing:

 Clear learning objectives/goals;

 Reference to relevant competencies contained in IALA Model Courses V-103/1, V-103/2 (if applicable) and V-103/3;

 Specific assessment strategies to verify, ascertain and record competence in the relevant

subject areas[KG4].

Programmes of recurrent, adaptation and updating training should be structured so that all elements of the scheme of work and detailed lesson/training plans are:

**S** - specific, significant, stretching;

**M** - measurable, meaningful, motivational;

**A** - agreed upon, attainable, achievable, acceptable, action-oriented;

**R** - realistic, relevant, reasonable, rewarding, results-oriented;

**T** - time-based, timely, tangible, traceable.

Record keeping etc…

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| As such, a programme of | | recurrent | [PS5] | training should draw on a range of training delivery |
| methods so as to maximise the candidates learning. Delivery methods may include, but are not | | | | |
| limited to: |  | | | |

* Online delivery
* Blended delivery

 Presentations,

 Guided discussions,

 Research based activities,

* Simulation exercises

 Case studies,

 Simulation,

Competence – a combination of the attitude, knowledge and skill necessary to enable VTS Personnel to successfully perform their functions effectively and efficiently.

**4.2 Training needs analysis**

Training needs analysis is an assessment conducted by a VTS Authoruity to identify the learning needs of its employees.. The needs assessment means is a means to identify and prioritise training requirements. Identification of training needs starts with the determination of knowledge, skills and attitude essential for maximum effectiveness as a VTS Operator.

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The needs analysis can be either broad or narrow. The broader approach compares actual performance with the minimum acceptable standards of performance. The narrower approach compares an evaluation of VTS operator proficiency on each required skill dimension with the proficiency level required for each skill.

A work analysis identifies is an analysis of the tasks being performed. It involves examining activities, tasks and roles of the job and the competency requirements for effective performance. Work analysis helps in ensuring that a given training method and context are aligned with the relevant job role. Work analysis seeks answers to the following questions:

• What are the main duties ?

• What is the knowledge, skills attitude required ?

• To what standards are people expected to do the job ?

• Is the VTSO currently meeting this standard ?

Where performance problems have been identified with VTS personnel it is important to assess and question whether the non-performance is due to a lack of knowledge, skills and/or attitude. Training is one of several solutions which may be available to address performance problems.

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**4.3 Course intake – limitations**

Class/group sizes should be limited at the discretion of the Competent Authority in order to allow the instructor(s) to give adequate attention to individual participants. A formal assessment to determine the maximum class/group size should be undertaken when the programme of recurrent, adaptation or updating training is designed.

Larger numbers of participants may be admitted if suitable mitigation measures, such as extra instructor(s) or tutorial periods are provided. This will ensure that adequate support is available to course participants as required, including on an individual basis as deemed necessary.

During practical sessions and group activities there may be additional constraints on class size. In particular, where the use of a simulator or similar teaching aid, such as VTS equipment, is involved[KG6], it is recommended that no more than two students should be trained simultaneously on any individual piece of equipment.

**4.4 Staff requirements**

Competent Authorities/and or VTS Authorities should ensure that instructors conducting recurrent, adaptation and updating training are appropriately qualified and experienced for the particular programme and nature of training and the corresponding assessment of competence.

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**5 ASSESSMENT**[KG7]

To successfully complete a programme of recurrent, adaptation or updating training, VTS

personnel should meet a level of performance determined by the Competent Authority.

An assessment should provide evidence that VTS personnel can proficiently perform the duties specified by the Competent Authority. This may take the form of an written and/or practical assessment which may be conducted through simulation or other means such as individual on the job assessment..

**PART C - COURSE FRAMEWORK**

**1 RECURRENT TRAINING**

**1.1 Introduction**

As a component of the Revalidation Process, recurrent training should be carried out at regular intervals as deemed necessary by the Competent Authority. However, it is recommended that

recurrent training should normally be carried out at intervals of not .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| exceeding | five | [PS8] | years | [KG9] |

Recurrent training may be conducted by an Accredited Training Organisation or by individual VTS Authorities as determined by the relevant Competent Authority. Recurrent training should cover generic and area specific elements of competency. This should be linked to a process combining instruction and practice to provide VTS personnel with the skill, knowledge and experience necessary to perform in their present/future jobs both efficiently and effectively.

Therefore, the general objectives of recurrent training are to provide a structured means of maintaining professional currency, reinforcement of previous training, and providing for continuous professional development. This will enable VTS personnel to perform in their present/future jobs both efficiently and effectively.

Successful completion of a process of updating training is necessary to facilitate the revalidation of a VTS Certification Log.

**1.2 Course structure**

Competent Authorities are recommended to develop a structured and standardised programme of recurrent training which maintains the core competencies of VTS personnel. A programme of recurrent training will enable VTS personnel to maintain currency to perform their operational duties as directed by the VTS authority.

The content of recurrent training should provide a structured means of reinforcing VTSO competencies and good practices , and providing for continuous professional development. The content should be based on generic areas of competency which may be supplemented by specific subjects to meet national or local needs.

Recurrent training should include the use of simulation. However, where simulation is not practicable, relevant and interactive exercises should be designed so as to achieve the desired learning goals.

The subject matter and topics included in a programme of recurrent training should reinforce the core modules of the IALA V-103 Model Courses.[KG10]

Competent Authorities, in conjunction with Accredited Training Organisations and VTS Authorities as appropriate, should develop a course structure which is connected to their national or local safety and quality management systems.

A programme of recurrent training should be designed so as to maintain and complement the core competencies delivered to VTS personnel as a component of the IALA V-103 Model Courses.

A programme of recurrent training should give consideration to the following broad subject headings:

**Topic**

**(including V-103/1 Module**

**Reference)**

**Sample Subject Headings**

**1 – Language** • Language structure

• Specific VTS messages construction

• Standard phrases

**2 – Traffic Management** • Regulatory requirements and legal knowledge

• Principles of waterway and traffic management including situational awareness

• Traffic monitoring and organisation including types of service

**3 – Equipment** • Evolving technologies

**4 – Nautical Knowledge** • Collision regulations

**5 – Communication**

**Co-ordination**

• General communication skills

**6 – VHF Radio** • Radio operator practices and procedures

• Communication procedures, including SAR

**7 – Personal Attributes** • Human relation skills

• Responsibility and reliability

• *attitude/proactivity*

*Interpersonal relationships*

**8 – Emergency Situations** • Prioritise and respond to situations

• Maintain a safe waterway throughout emergency situations

**Local Continual Professional**

**Development Activities**

• Undertake visits to allied services, and other stakeholders

• ship trips with Pilots, PEC holders or vessel Masters

This table is not exhaustive and subjects may be added or removed. The areas may be supplemented by additional subjects drawn from the IALA model courses or other suitable sources to meet specific national and/or local needs.

Competent Authorities may require that VTS personnel holding V-103/2 VTS Supervisor qualifications to undertake additional subjects as covered in model course V-103/2of recurrent training. This recognises that VTS Supervisors possess a higher level of knowledge and understanding of the subject areas listed above and the additional subjects.

Competent Authorities, in conjunction with Accredited Training Organisations and VTS Authorities as appropriate, should ensure that the programme of recurrent training takes account of the previous experience of VTS personnel so as to avoid unnecessary repetition of previous learning.

**1.3 Entry Standard**

The minimum recommended entry requirements for a programme of Recurrent training are the successful completion of training as specified in IALA Model Course V-103/1, V-103/2 (if applicable) and V-103/3.

A programme of Recurrent training should only be provided to VTS personnel that do not require updating training as a result of a break in service**,** unsatisfactory operational performance or other circumstances influencing the required level of competence.

**1.4 Frequency and duration**

An assessment of the performance of each member of VTS Personnel should be carried out by a VTS Supervisor/Manager at regular intervals, preferably annually, to ensure that the standards set by the Competent Authority for operator qualifications are continuing to be met. This regular assessment may take the form of performance monitoring/review or appraisal.

The Competent Authority should determine the frequency of a programme of recurrent training.

The specific duration of a programme of recurrent training should be determined by the Competent Authority. It is recommended that VTS Authorities allow sufficient time for elements of local continuous professional development training to be undertaken on an annual basis.

**1.5 Assessment**

In the event that VTS personnel do not meet the standards of performance determined by the Competent Authority a training needs analysis should be undertaken to determine a programme of corrective action. This will normally take the form of a programme of updating training.

**1.6 Certification**

Upon successful completion of a programme of recurrent training, VTS personnel should be issued with a course certificate.

**1.7 Appendix 1– Example recurrent training programme conducted over three years**

The recurrent training consists of four parts every year :

* In year one the VTSO will have a simulator training on non-routine situations. This should be a minimum of 2 hours effective training time, including briefing and debriefing. The VTS-authority will have a standardised programme developed for every VTSO that year. The simulator session is designed to coach the VTSO. There is no exam at the end of the session[PS11].
* The second part is an update in theory, either on paper or e-learning or through through industry publications/newsletters. The topic is to the choice of the VTS-authority, eg. Changes in environment, rules and regulations, human factors, SOP’s, language etc.
* The third part is practical activity. The goal of this activity is to gain additional knowledge of the environment the VTSO is working in. Examples are: visiting another VTS-centre, making a trip on a vessel and so forth.
* The fourth part is monitoring. Operational performance of routine situations and adherence to SOP’s is best checked by means of monitoring. The VTS-authority tapes the image of the radar and the communication and checks the performance of the VTSO several times a year. Ideally this activity is part of a Safety Management System in which the outcome should be recorded. The

VTS-authority discusses the results with the VTSO. It is highly recommended that the VTS- authority monitors performance at least twice a year.

Year two has a similar setup although there are minor differences.

* In year two the VTSO engages in personal development. This means that the VTSO can request any activity which will improve his/her own performance. This is to stress his own responsibility for his proficiency. VTSO may request an individual, tailor made simulator session, theory update, course, inter-colleague assessment or any other activity which adds to professional development.
* During the second year he will also do a theory update, a practical activity and the employer will monitor his/her performance on at least two occasions.

Finally the third year the VTSO has another simulator session or case study or similiar means to asses their competence in non routine situations (for example exposure to incidents),

Do some practice activity, have another theory update and is monitored by his employer.

Year 1 Year 2 Year 3

Sim training non routine Personal development Sim training incident

Theory update Theory update Theory update

Practice Practice Practice

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | |  | | |  | | |
|  | Monitoring |  |  | Monitoring |  |  | Monitoring |  |
|  | | |  | | |  | | |
|  | Profcheck |  | | | | | | |

Once every three years a profcheck is conducted. The profcheck is to demonstrate the level of competence of the VTSO, measured by an independent examiner. The result of this check is given to the VTS-authority as a conclusion. The outcome does not have an immediate effect on the career of the VTSO. It is highly recommended that the VTSO has at least once a year an appraisal interview with his manager[PS12]. The outcome of the profcheck should be an integral part of this appraisal interview. In this manner the responsibility for current VTSO-staff lies with the VTS-authority.

The order of non-routine and incident/accident is trivial. It is to the VTS-authority to decide on the content of the simulator training.

Hours per year

Simsession 2 hours

Theory update approximately 4 hours (20 pages) Practice as applicable

Monitoring 0 (during work) Profcheck 2 hours

**2 ADAPTATION TRAINING**

**2.1 Introduction**

As a component of the Revalidation Process, Adaptation Training should be carried out as deemed necessary by a Competent Authority and/or VTS Authority. A process of adaptation training will be implemented whenever significant changes are expected to be made or have been made, concerning equipment, regulations, operational procedures or any other matter which is relevant to the performance of VTS personnel.

Adaptation training may be conducted by an individual VTS Authorities or Accredited Training Organisation as determined by the relevant Competent Authority. Adaptation training should be linked to a process combining instruction and practice to provide VTS personnel with the competence[KG13] necessary to perform in their present/future jobs both efficiently and effectively.

Therefore, the general objectives of adaptation training are to provide a structured means of training to enable VTS personnel to continue to perform in their present/future jobs both efficiently and effectively when a significant change in the VTS environment is planned or has been made.

**2.2 Course structure**

A programme of adaptation training should be developed on a case-by-case basis taking full account of the nature of the specific changes to the VTS environment. In order to develop a programme of adaptation training, a training needs analysis should be undertaken to determine the nature of the planned change in order to design, develop, implement the required training and to subsequently assess the performance of VTS personnel.

A programme of adaptation training should consist of a structured scheme of work and/or detailed lesson/training plans for each subject area with clear learning goals. Whilst adaptation training should always be planned and structured, the nature and extent of the change(s) to the VTS environment, and the result of the training needs analysis, will determine the nature and extent of a structured scheme of work and/or detailed lesson training plans.

**2.3 Entry standard**

The minimum recommended entry requirements for a programme of adaptation training areThe successful completion of training as specified in IALA Model Course V-103/1, V-103/2 (if applicable) and V-103/3,

A programme of adaptation training should only be provided to VTS personnel that have a valid VTS Certification Log and that do not require updating training as a result of a break in service**,** unsatisfactory operational performance or other circumstances influencing the required level of competence.

**2.4 Frequency and duration**

Recognising that adaption training should take place when a change to the VTS environment are expected to be made or have been made, it is not possible to determine a frequency for such training. Adaptation training should take place as deemed necessary by the Competent Authority and/or VTS Authority.

It is recommended that a programme of adaptation training should take place, if possible, before the change(s) to the VTS environment takes place.

In determining the duration of a programme of adaptation training, the Competent and/or VTS Authority should consider the complexity and nature of the changes when preparing the training objectives.

**2.5 Certification**

Records of attendance and successful completion of adaptation training should be maintained. The VTS Certification Log may be endorsed and/or a certificate issued.

**3 UPDATING TRAINING**

**3.1 Introduction**

As a component of the Revalidation Process, Updating Training may be implemented when VTS Personnel require additional training. Updating training may be required due to a number of reasons, for example :

• After a break in service,

• Following an unsatisfactory outcome of the regular assessment of the performance of a member of VTS personnel,

• Upon requestof a member of VTS personnel,

• When deemed necessary by the Competent and/or VTS authority.

Updating training may be conducted by an individual VTS Authority or Accredited Training Organisation or by . Updating training may cover generic and area specific elements of competency. This should be linked to a process combining instruction and practice to provide VTS personnel with the competence necessary to perform in their present/future jobs both efficiently and effectively.

Therefore, the general objectives of updating training are to provide a structured means of regaining or re-aquiring professional currency and competence as well as reinforcing of previous training. Training needs analysis…..

The Competent and/or VTS Authority should determine when a formal assessment is required after a break in service, taking into account the complexity of the VTSO’s task. It is recommended to consider a formal assessment after a break in service of 3 months or more according the the complexity of the VTS area. After the break in service the VTSO is obliged to have a formal assessment determining the performance gap, which can then be used to identify the required elements for the VTSO’s individual training programme. The assessment will be the basis of the training which is laid out in a formal training programme and which is communicated to the trainee prior to training. This training programme may also include renewal of the V103/1 and/or V103/3 as deemed appropriate.

**3.2 Course structure**

VTS Authorities are recommended to develop a structured training programme of Updating Training which covers and develops the core competencies of VTS personnel as assessed during the training needs analysis. Updating training may include different methods of learning, such as:

Online learning or e-learning

Blended learning

o Classroom teaching

o Simulator training

• Interactive exercises

o OJT/mentoring

o Monitoring

o Visits (to allied services, trips with Pilots/vessel Masters, other VTS Centres etc.)

**3.3 Entry Standard**

Updating Training will be an individually tailored programme.

The minimum recommended entry requirements for a programme of Updating arethe successful completion of training as specified in IALA Model Course V-103/1, V-103/2 (if applicable) and V-103/3.

**3.4 Frequency and duration**

Recognising that updating training is an individually tailored programme designed to enable VTS personnel to regaining or re-aquire professional currency, it is not possible to determine a frequency for such training. Upddating training should take place as deemed necessary by the Competent Authority and/or VTS Authority

**4**

**5 REFERENCES**

The following primary references have been used in the production of this M:

• IALA Dictionary;

• IALA Guideline 1018;

• IALA Guideline 1070;

• IALA Model Course V103/3;

• IALA Recommendation V-125;

• IALA Recommendation V-127;

• IALA Recommendation V-128;

• IALA Recommendation V-103;

• IALA VTS Manual 2012;

• IMO Resolution MSC.302 (87).