Document Revisions

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IALA Model Course

**V-103/5**

**On**

**Vessel Traffic Services**

**Revalidation Training and Continued Proficiency of VTS Personnel**

**Edition 1**

**October2015**

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

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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 human resources 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.

The model training courses developed, or being 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 Certification Log Revalidation Training

These model courses are intended to provide national members, accredited training organisations and other appropriate authorities charged with the provision of vessel traffic services with specific guidance on the training of VTS Operators and VTS Supervisors. They may be used by maritime training organisations, and assistance in implementing any course may be obtained through IALA at the following address:

The Secretary General,

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10 rue des Gaudines, Fax +33 34 51 82 05

78100 Saint Germain en Laye e-mail: [contact@iala-aism.org](mailto:contact@iala-aism.org)

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PART A – COURSE OVERVIEW

# INTRODUCTION

## 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 which may be supplemented by Adaptation Training and/or Updating Training as deemed necessary. Each type of training should be involve a relevant process of assessment.

In addition to the Revalidation Process, VTS personnel should be encouraged 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.

## 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 skill, knowledge and experience necessary to perform in their present/future jobs both efficiently and effectively.

Further, the process of revalidation, 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, skill 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 VTS qualifications continue to be met.

As a means to complement this assessment, and to ensure the continuous professional development of VTS personnel, Revalidation training should be undertaken as deemed necessary 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 significant changes have been made, or are expected to be 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 gap 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.

## Revalidation of VTS Certification Logs

VTS Qualification

Regular Assessment

PART B - DELIVERY OF THE MODEL COURSE

Revalidation of VTS Certification Log

Recurrent Training

Adaptation Training

Updating Training

# Introduction

# IMPLEMENTATION

To deliver a programme of recurrent 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, including simulators,
* Textbooks and other technical/professional papers,
* Other sources of information to support the training process (such as the internet),
* Other reference material

# VALIDATION

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

# training programme

## 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.

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 training should draw on a range of training delivery methods so as to maximise development opportunities. Delivery methods may include, but are not limited to:

* Presentations,
* Guided discussions,
* Research based activities,
* Case studies,
* Simulation,

## Training needs analysis

Analysis

Design

Development

Implementation

Assessment

Evaluation

## Course intake – limitations

Class/group sizes should be limited at the discretion of the Competent Authority in order to allow the instructor 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 training is designed.

Larger numbers of participants may be admitted if suitable mitigation measures, such as extra staff or tutorial periods are provided to ensure 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 restraints on class size. In particular, where the use of a simulator or similar teaching aid is involved, it is recommended that no more than two students should be trained simultaneously on any individual piece of equipment.

## Staff requirements

Competent 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.

Normally, instructors should be qualified in accordance with the following requirements:

* **Recurrent training** – IALA Guideline 1103 on Train-the-Trainer
* **Adaptation training** – IALA Guideline 1103 on Train-the-Trainer or IALA Model Course V-103/4 On-the-Job Training Instructor or other recognised training qualification. Due to the nature of adaptation training, it may be necessary to use instructors from other sources. For example, this may include instructors from equipment providers or other organisations related to the original requirement for the training. In this case, Competent Authorities and/or VTS Authorities should review the credentials of the nominated instructor(s) before the programme of adaptation training commences.
* **Updating training** – IALA Guideline 1103 on Train-the-Trainer or IALA Model Course V-103/4 On-the-Job Training Instructor

# ASSESSMENT

PART C - COURSE FRAMEWORK

# RECURRENT TRAINING

## 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 years.

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

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.

A programme of recurrent training ensures that VTS personnel maintain a satisfactory level of operational performance in generic and area specific elements of competency which includes a process of continuous professional development.

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.

## Course structure

Competent Authorities are recommended to develop a structured and standardised programme of recurrent training which covers and develops 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 maintaining professional currency, reinforcement of previous training, 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 specific national or local needs.

Recurrent training should, wherever practicable, 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 IALA Model Course V-103/1.

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 encompass the following broad subject headings:

* Identification and exploration of regulatory and procedural changes at the local, national and international levels,
* Review and discussion of lessons identified and issues raised within accident or incident investigation reports,
* The identification and review of new and evolving technological changes that may have an impact upon the VTS environment,
* The implementation of local, national and international VTS procedures,
* Participation in procedural and emergency exercises at either the local or generic level,
* Undertaking of visits to allied services, and other stakeholders,
* Undertaking of ship trips with Pilots, PEC holders or vessel Masters.

The areas may be supplemented by specific subjects to meet national and/or local needs.

A programme of recurrent training should be designed so as to enhance the core training delivered to VTS personnel as a component of IALA Model Courses V-103/1, V-103/2 (if applicable) and V-103/3.

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.

## 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, and;
* The possession of a valid VTS Certification Log.

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.

## Frequency and duration

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 VTS qualifications continue to be met.

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

Recurrent training should normally take place at intervals of not exceeding five years. The specific duration of a programme of recurrent training should be determined by the Competent Authority. Wherever possible, It is recommended that VTS Authorities allow sufficient time for elements of local continuous professional training to be undertaken on an annual basis.

## Assessment

To successfully complete a programme of recurrent training, VTS personnel should meet a level of performance determined by the Competent Authority and/or the VTS Authority.

An assessment should provide evidence that VTS personnel can proficiently undertake the duties specified by the relevant Competent Authority and/or the VTS Authority. This may take the form of an examination or personal assessment.

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

## Certification

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

## Appendix 1– sample 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.

The second part is an update in theory, either on paper or e-learning. 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 some 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 he can request any activity which will improve his own performance. This is to stress his own responsibility for his proficiency. He 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, some sort of practice and his employer will monitor his performance on at least two occasions.

Finally the third year the VTSO has another simulator session (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. 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

# ADAPTATION TRAINING

## 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. Normally, a process of adaptation training will be implemented whenever significant changes have been made, or are expected to be 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 Accredited Training Organisation or by individual VTS Authorities 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 skill, knowledge and experience necessary to perform in their present/future jobs both efficiently and effectively.

A programme of adaptation training ensures that VTS personnel attain a satisfactory level of operational performance when a significant change in the VTS environment is planned.

Therefore, the general objectives of adaptation training are to provide a structured means of training to enable VTS personnel to perform in their present/future jobs both efficiently and effectively after a significant change in the VTS environment.

## 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. 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.

## Entry standard

The minimum recommended entry requirements for a programme of adaptation 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, and;
* The possession of a valid VTS Certification Log.

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.

## Frequency and duration

Recognising that adaption training should take place when a change to the VTS environment is planned, it is not possible to determine a set frequency for such training. Adaptation training should take place as deemed necessary by the Competent Authority and/or VTS Authority. When planning a programme of adaptation training, steps should be taken to ensure that VTS personnel are trained before the change to the VTS environment takes place.

When determining if a programme of adaptation training is necessary, a training needs analysis should be undertaken with specific reference to the nature of the change to the VTS environment.

Every time there is a change in equipment, regulations or procedures, etc. that takes effect in VTS Personnel performance an Adaptation Training should be undertaken.

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 determining the training objectives.

## Assessment

To successfully complete a programme of adaptation training, VTS personnel should meet a level of performance determined by the Competent Authority and/or the VTS Authority.

An assessment should provide evidence that VTS personnel can proficiently undertake the duties specified by the relevant Competent Authority and/or the VTS Authority following the planned changes. This may take the form of an examination or personal assessment.

## Certification

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

# UPDATING TRAINING

* + 1. Scope (what)

Updating training occurs when VTS Personnel need additional training due to break(s) in service for a certain period, inadequate operational performance and other circumstances as determined by the Competent/ VTS Authority.

Competent/VTS Authority should determine time limits for break(s) in service when Updating Training is mandatory.

In these cases a gap analysis can indicate the need for and provide the content for an Updating Training.

* + 1. Objective (why)

Updating Training ensures that VTS Personnel maintain a satisfactory level of operational performance.

Updating Training guarantees that VTS Personnel qualifications, obtained as per IALA Model Courses V-103 1 to 3 requirements, are maintained during the professional career.

Updating Training also helps VTS Personnel to maintain sufficient competency to safely and efficiently perform their duties.

Updating training concentrates on operational performance especially when:

- there has been break(s) in service,

- the operational performance has been on inadequate level or

- the operational performance standards have not been met in periodical assessment.

* + 1. Frequency (when)

An Updating Training should take place as and when needed or as deemed necessary by the Competent/VTS Authority for individual VTS Personnel and could not be on a regular base.

* + 1. Delivery (how)

The content of the updating training is determined by the VTS Authority and should be part of a fixed training programme. The basis for this programme could be either generic, local or what is deemed necessary. The VTS Authority should determine the standards that are to be met and should implement a programme for VTS operators failing to meet these standards.

To deliver a training effectively, consideration should be given to the availability and the use of:

* Qualified instructors
* Support staff
* Classrooms, and other spaces
* Equipment, including simulators
* Textbooks and technical papers
* Other reference material

Updating training should, wherever practicable, include the use of simulation. However, where simulation is not practicable, the exercises should be designed to be fully representative of appropriate situations that occur in a VTS environment. Examples of updating training:

* Traffic management
* Human factor management
* Training on incidents
* Communication
* IALA updates
  + 1. Assessment

It is recommended that updating training is being assessed and evaluated by qualified personnel. This should assure that the VTS operator meets the level of performance determined by the VTS Authority as an outcome of the updating training. VTS Authority may also determine how long training period should be sufficient for a VTS operator to meet the required standards, and what are the consequences if standards are still not met after the updating training is completed in full extent.

VTS Authority should determine which records of updating training should be included in the VTS certification log.

1. **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).

Part D - GUIDELINES FOR INSTRUCTORS

# Introduction

Part E - COURSE MODULES