Document Revisions

***AISM***Association Internationale de Signalisation Maritime ***IALA***

International Association of Marine Aids to Navigation and Lighthouse Authorities

10 rue des Gaudines, 78100

**Saint Germain en Laye, France**

**Telephone: +33 1 34 51 70 0**1 Fax: +33 1 34 51 82 05

e-mail: [contact@iala-aism.org](mailto:contact@iala-aism.org) Internet: [www.iala-aism.org](http://www.iala-aism.org)

IALA Model Course

**V-103/5**

**On**

**VTS Revalidation Training**

**Edition 1**

**March 2016**

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** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Table of Contents

[Document Revisions 1](#_Toc444069188)

[Table of Contents 3](#_Toc444069189)

[Index of Tables 5](#_Toc444069190)

[Index of Figures 6](#_Toc444069191)

[Foreword 7](#_Toc444069192)

[PART A – COURSE OVERVIEW 8](#_Toc444069193)

[1 INTRODUCTION 8](#_Toc444069194)

[1.1 Purpose of the Model Course 8](#_Toc444069195)

[1.2 Use of the Model Course 9](#_Toc444069196)

[1.3 Revalidation process for VTS qualifications 10](#_Toc444069197)

[10](#_Toc444069198)

[PART B - DELIVERY OF THE MODEL COURSE 11](#_Toc444069199)

[1 Introduction 11](#_Toc444069200)

[2 IMPLEMENTATION 11](#_Toc444069201)

[3 VALIDATION 12](#_Toc444069202)

[4 training programme 12](#_Toc444069203)

[4.1 General principles 12](#_Toc444069204)

[4.2 Training needs analysis 13](#_Toc444069205)

[4.3 Course intake – limitations 16](#_Toc444069206)

[4.4 Staff requirements 16](#_Toc444069207)

[5 ASSESSMENT 16](#_Toc444069208)

[PART C - COURSE FRAMEWORK 17](#_Toc444069209)

[1 RECURRENT TRAINING 17](#_Toc444069210)

[1.1 Introduction 17](#_Toc444069211)

[1.2 Course structure 17](#_Toc444069212)

[1.3 Entry Standard 18](#_Toc444069213)

[1.4 Frequency and duration 19](#_Toc444069214)

[1.5 Assessment 19](#_Toc444069215)

[1.6 Certification 19](#_Toc444069216)

[2 ADAPTATION TRAINING 20](#_Toc444069217)

[2.1 Introduction 20](#_Toc444069218)

[2.2 Course structure 20](#_Toc444069219)

[2.3 Entry standard 20](#_Toc444069220)

[2.4 Frequency and duration 20](#_Toc444069221)

[2.5 Certification 21](#_Toc444069222)

[3 UPDATING TRAINING 22](#_Toc444069223)

[3.1 Introduction 22](#_Toc444069224)

[3.2 Course structure 22](#_Toc444069225)

[3.3 Entry Standard 23](#_Toc444069226)

[3.4 Frequency and duration 23](#_Toc444069227)

[3.5 Frequency and duration 23](#_Toc444069228)

[**4** **References** 24](#_Toc444069229)

[ANNEX A 25](#_Toc444069230)

[1 sample recurrent training programmeS 25](#_Toc444069231)

[1.1 Sample recurrent training programme conducted over three years 25](#_Toc444069232)

[1.2 Sample recurrent training programme conducted over three years 28](#_Toc444069233)

Index of Tables

Table 1 – possible subject headings for recurrent training

Table 2 – sample schedule of recurrent training

Index of Figures

Figure 1 – process for the revalidation of VTS qualifications

Figure 2 – training needs analysis

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 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 and 2010 (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,

IALA, Tel: +33 34 51 70 01

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)

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

PART A – COURSE OVERVIEW

# 1 INTRODUCTION

IALA Recommendation V-103 on the Standards for Training and Certification of VTS Personnel recommends that an assessment of the performance of each VTSO 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 are continuing to be met.

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

Further, to ensure the continued maintenance of a VTS qualification, the Competent Authority should implement a process of revalidation training. Within this model course, 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.

## Purpose of the Model Course

This model course is intended to provide guidance to Competent Authorities on how to maintain and improve the quality of performance of their VTSOs, by means of training, in order to enable the revalidation of the qualifications contained within the VTS certification log. An optimal level of performance can be assured by a well-developed system of IALA V-103/1 VTS Operator training supplemented by periodic refresher training. The aim of training is to ensure that there is no gap between the operational demands of the industry and working environment and the competence of the Operator.

Revalidation of a VTS qualification may be required in a variety of situations, each calling for a different approach. In this document these situations will be described together with the most appropriate course of action for the revalidation of the certification log.

Revalidation of a VTS qualification may be required when:

* The VTS certification log is approaching its expiry date;
* There are changes in the physical environment of the VTS or the tasks of the VTSO which necessitate additional training;
* There is a break in service, unsatisfactory operational performance or other circumstances leading to a reduced level of competence.

Training must be appropriately recorded, at all times the VTS certification log should kept up to date to enable the VTS qualifications to be revalidated when required.

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.

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

Completion of the revalidation process will result in the revalidation and maintenance of qualifications contained within a 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.

Revalidation training is designed to ensure continual professional development of a VTSO with the aim to increase and enhance their competence thereby enabling them to deliver the optimum level of Vessel Traffic Service. Revalidation training consists of a set of training tools, being currently recurrent training, adaptation training and updating training in order to ensure that critical training needs are addressed during the career of the VTSO.

Although this Model Course primarily refers to VTSOs Competent Authorities may require that VTSOs holding V-103/2 VTS Supervisor qualifications should undertake additional elements of revalidation training. This recognises the requirement for VTS Supervisors to possess a higher level of knowledge and understanding

## Use of the Model Course

In accordance with the definition of refresher training contained within IMO Resolution A.857(20), recurrent, adaptation and updating training should combine a variety of teaching methods to provide VTSOs with the skills, knowledge and attitude necessary to perform in their present/future jobs both efficiently and effectively.

Furthermore, revalidation training, encompasses the definition of refresher training within IMO Resolution A.857(20) by 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 VTSO 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 VTSOs, revalidation training should be undertaken to ensure that holders of VTS qualifications maintain a satisfactory level of operational performance.

Revalidation training, to enable the revalidation of qualification(s) contained within a VTS certification log, 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 VTSOs.
* **Updating training** is custom made training designed following a training needs analysis indicating that member(s) of VTSOs 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 process for VTS qualifications

The flowchart below describes the steps necessary in order to enable the revalidation of a VTS qualification.

VTS QUALIFICATION

(VTS CERTIFICATION LOG)

UPDATING

ADAPTATION

RECURRENT

PROFICIENCY CHECK

(ASSESSMENT)

REVALIDATION

Fail

Pass

*Figure 1 – process for the revalidation of VTS qualifications*

If necessary and appropriate, adaptation and updating training may be integrated as a part of the recurrent training, but should not replace or interfere with the core requirements recurrent training. Adaptation and Updating training do not lead to revalidation of the VTS-license but to revalidation of the Certification Log.

PART B - DELIVERY OF THE MODEL COURSE

# 1 Introduction

All training and assessment of VTSOs undertaking revalidation training should be:

1. Structured in accordance with written programmes, including such methods and means of delivery, procedures and course material as are necessary to achieve the prescribed standard of competence; and,
2. Conducted, monitored, assessed by persons qualified in accordance with the Training Management System.

Training staff should review the course outline and detailed syllabus in each subject. The actual level of knowledge, skills and prior technical education of the trainees in the subject concerned should be kept in mind during this review. For programmes of adaptation training and updating training a gap-analysis is required. More detailed information on the gap-analysis is provided in paragraph 4.2 of this document.

Prior to the commencement of any training programme, the VTSO should be provided with written information regarding the training. This information should at least give insight into:

1. The date and time that the training will be given;
2. The name of the instructor(s);
3. Whether an assessment will be part of the procedure;
4. If an assessment if part of the procedure, what level of performance is expected;
5. The consequences of not passing the assessment;
6. The rights of the VTSO (review the exercise, ask second opinion and so forth)

# 2 IMPLEMENTATION

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

* Learning goals and a lesson plan as laid out in IALA Guideline 1103)
* The appliance of a standardised norm for building the exercise,
* Qualified instructors,
* Support staff,
* Briefing / debriefing rooms, and other relevant facilities,
* Equipment, including simulators,
* Sites, interactive maps, video-material, textbooks, technical/professional papers,
* Other sources of information to support the training process
* References to V-103/1 and/or V-103/3 courses and IALA Guideline 1103

# 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.

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.

Programmes of recurrent, adaptation and updating 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,

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

## 4.2 Training needs analysis

The training needs analysis, as described in IALA Guideline 1103 (on Train the Trainer), provides a means to establish the gap between the minimum acceptable standard of performance and the actual performance of the VTSO.

TRAINING NEEDS

REQUIRED COMPETENCE

PERSONAL COMPETENCIES

Gap analysis

*Figure 2 – training needs analysis*

The identification of training needs results in the identification and prioritization of training requirements. The identification of training needs should start with the determination of the knowledge, skills and attitude essential for maximum effectiveness as a VTSO.

The personal training 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 VTSO proficiency against each required skill dimension with the proficiency level required for each skill.

A suitability analysis should also be carried out as a component of a training needs analysis. A suitability analysis will determine whether training is the desired/optimum solution. This recognises that the provision of training is one of several solutions to performance problems. It is therefore important to determine if training is the right solution. The results of a suitability analysis should determine whether the non-performance is due to a trainable lack of knowledge, skills and/or attitude.

**Estabilishing a norm**

It is of the utmost importance that the process of Revalidation leads to a valid outcome. The outcome of the profcheck is of major importance to the VTS-authorty and to the VTSO. In some cases this may lead to legal action. It is therefore of the utmost importance that the VTS-authority can prove that especially the profcheck has a standard.

Below you find an example of establishing a norm for the VTS-centre involved. On the left you find the several competences of the VTSO (or the topics of V103/1 for the moment). Every activity of a VTSO can be either routine, complex (if for example there are difficult ships, extraordinary circumstances, bad weather) or there may be a disturbance (break down of communication, interference of some sort, non-compliance and so on). Routine situations are given a difficulty of 1 point, complex situations should have a difficulty of 2 points (in the table this is not true for cooperation, why not?) and a disturbance is given 3 points. Now how does this help with the design of an exercise?

1. The first step in the process is to make an exercise of which the instructors feel that this is the appropriate level for the sector involved.
2. The instructors should then fill the underneath table with events according to being routine, complex or a disturbance.
3. Every critical event in the exercise will get a grade. The summation of grades over the entire exerice is the norm for this sector. If the norm-exercise is 30 minutes than all the following exercises should be either 30 minutes or a relative norm should be established. For example if the exercise of 30 minutes is 90 points, the norm per minute is 3. If you make an exercise of 45 minutes the difficulty should be 45 \* 3 = 135. Be aware that the VTSO may experiene the exercise of 45 minutes as more difficult than the 30 minute exercise.
4. This process will ensure that the exercises which are being developed are all of an equal level of difficulty.

In the table below you find an example. [I will have to translate the table to VTS103-1 topics]

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Competence | Level | Pnt | Situation | Number |  |
| Cooperation | 5 | | | | |
|  | Routine | 1 | Call neighbouring centre, inform colleague, inform management, order a pilot |  |  |
|  | Complex | 1 | Hand over incident / accident |  |  |
|  | Disturbance | 1 | Inform neighbouring centre about obstruction |  |  |
| Language | 15 | | | | |
|  | Routine | 1 | Sector report, leaving vessel, shifting vessel |  |  |
|  | Complex | 2 | Leaving vessel with foreign language, shifting berth |  |  |
|  | Disturbance | 2 | Unknown vessel |  |  |
| Creates Traffic Image | 5 | | | | |
|  | Routine | 1 | Handover, priority reporting??? Prioritising messages |  |  |
|  | Complex | 2 | Incomplete handover Sea sector |  |  |
|  | Disturbance | 3 | non-compliance of vessel |  |  |
| Equipment | 35 | | | | |
|  | Routine | 1 | IVS-ident  Notice to mariners/nautical exceptions  Feedback appointment??????? |  |  |
|  | Complex | 2 | delayed message |  |  |
|  | Disturbance | 1 | Port information system wrong or missing |  |  |
| Traffic Management | 50 | | | | |
|  | routine | 1 | Inbound, outbound with report to third party ship |  |  |
|  | Complex | 2 | Position call, tide ports, lock planning berth planning, second language, bovenmaats, main fairway and secondary fairway with |  |  |
|  | Disturbance | 3 | Works, nautical exceptions, bad view, course crossing with disturbance, difficult tow) instruction |  |  |
|  | Disturbance | 5 | Unexpected behaviour vessel |  |  |
| Manages incidents | 15 | | | | |
|  | Potentieel gevaarlijke situatie 1x | 5 | Danger for collision |  |  |
|  | Calamiteit | 10 | Dealing with incident |  |  |

When an exercise for example is 45 minutes and has 100 points, the developer may choose 100 easy events from 1 point each. If he chooses one incident of 15 points, the remaining events should not exceed 85 points together. In this way the developer of the exercise has a standard, but still sufficient choice to tailor the exercise to the regional characteristics of the traffic.

It is up to the VTS-authority to change the content of the table with regard to the topics included and the perceived complexity of each of the items. However, the table should be part of the training syllabus and made available to both TTIs and VTSOs.

## 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, 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 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.

Instructors should be qualified in accordance with the following requirements:

* **Recurrent training** – IALA Guideline 1103 on Train-the-Trainer or IALA Model Course V-103/4 On-the-Job Training Instructor.
* **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.

# 5 ASSESSMENT

To successfully complete a programme of recurrent, adaptation or updating training, VTSOs should meet a level of performance determined by the Competent Authority.

An assessment should provide evidence that VTSOs can proficiently undertake the duties specified by the Competent Authority. This may take the form of an examination, simulation or individual on-the-job assessment/proficiency check, an assessment should be formal and standardized. It is therefore essential that the assessment meets the minimum criteria for standardized testing, such as information provided, the design of a standardised programme and the establishment of prior norms. The entire assessment should be well documented within the Training Management System.

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 be carried out at intervals of not exceeding five years.

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 VTSO 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 the VTSO 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 qualifications contained within a VTS certification log.

## Course structure

Competent Authorities are recommended to develop a structured and standardised programme of recurrent training which maintains the core competencies of VTSOs. A programme of recurrent training will enable VTSOs 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 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.

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 training delivered to VTSOs 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* |
| **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 |

*Table 1 – possible subject headings for recurrent training*

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 VTSOs holding V-103/2 VTS Supervisor qualifications should undertake additional elements of recurrent training. This recognises the requirement for VTS Supervisors to possess a higher level of knowledge and understanding of the subject areas listed above and the additional subjects covered in model course V-103/2.

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 the VTSO 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 VTSOs 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

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 also allow sufficient time for elements of local continuous professional development training to be undertaken on an annual basis.

## Assessment

In the event that a VTSO does 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.

A programme of recurrent training should be concluded with an assessment in the form of a proficiency check. This check should demonstrate the current level of proficiency of the VTSO. A performance check should be a formal and standardised process.

## Certification

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

# 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. 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 the VTSO.

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 VTSOs with the competence 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 VTSOs 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.

## 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 VTSOs.

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.

## 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 VTSOs 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 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.

## Certification

Records of attendance and successful completion of a programme of adaptation training should be maintained. The VTS certification cog may be endorsed and/or a certificate issued as deemed necessary by the Competent Authority and/or VTS Authority.

# UPDATING TRAINING

## Introduction

As a component of the revalidation process, updating training should be implemented when VTSOs require additional training other than covered by the recurrent training and adaptation training. Updating training may be required due to a number of reasons:

* After a break in service;
* After a VTS certification log has expired;
* Following an unsatisfactory outcome of the Profcheck of the performance of a VTSO following a programme of recurrent training;
* Upon request of a VTSO;
* When deemed necessary by the Competent and/or VTS authority.

Updating training may be conducted by an Accredited Training Organisation or by a VTS Authority as determined by the relevant Competent Authority. Updating training may cover generic and/or area specific elements of competency. This should provide VTSOs with the competence necessary to perform their present/future jobs both efficiently and effectively.

Therefore, the general objective of updating training is to provide a structured means of regaining or re-acquiring professional currency and competence as well as the reinforcement of previous training. A training needs analysis should always be an integral part of updating training. From this analysis the training goals and methods should be determined prior to training.

## Course structure

After an event that triggers a requirement for a programme of updating training, a formal assessment to determine any performance gap should be undertaken. This formal assessment should take the form of a gap-analysis as described in section XXXX of this Model Course. The results of this formal assessment should then be used to identify training goals and the associated levels of performance to be achieved by the VTSO who is undertaking an individual updating training programme.

The formal assessment will form the basis of the updating training which should be specified in a formal training programme and which should communicated to the VTSO prior to the training commencing. Such a programme of updating training may also include the repetition, in full or in part, of IALA Model Course V-103/1 and/or V-103/3 as deemed appropriate.

It is the responsibility of the Competent and/or VTS Authority to determine the aims and objectives of the programme of updating training. The VTSO should always be informed of the aims and objectives of the programme of the updating training and also be given full information with respect to the planned duration and format of the training.

Whilst the VTSO should be informed of the aims and objectives of the programme of updating training, it is the primary responsibility of the Competent and/or VTS Authority to determine them as appropriate.

The Competent and/or VTS Authority should determine the requirement for updating training after a break in service, taking into account the complexity of the VTS area and the VTSOs task. It is recommended to consider a formal assessment on the requirement for updating training after a break in service of 3 months or more according to the complexity of the VTS area and the VTSOs task.

Competent Authorities and/or VTS Authorities are recommended to develop a structured training, according to IALA Guideline 1103, programme of Updating Training which covers and develops the core competencies of VTSOs as assessed during the training needs analysis. Updating training may include different methods of teaching, such as:

* + A variety of classroom teaching methods
  + Simulator training
* Interactive exercises
  + OJT/mentoring
  + Monitoring
  + Visits (to allied services, trips with Pilots/vessel Masters, other VTS Centres etc.)

The training goals will determine the method of teaching and the required level of performance will determine the amount of time allocated to the training.

## Entry Standard

Updating Training will be an individually tailored programme.

The minimum recommended entry requirements for a programme of Updating are:

* The successful completion of training as specified in IALA Model Course V-103/1, and V-103/3.

## Frequency and duration

Recognising that updating training is an individually tailored programme designed to enable VTSOs to regain or re-aquire professional currency, it is not possible to determine a frequency or duration for such training. The duration for a programme of updating training should be determined as a result of the formal assessment described in section 3.2.

## Frequency and duration

A programme of updating training should be concluded with an assessment in the form of a proficiency check. This check should demonstrate the current level of proficiency of the VTSO. A performance check should be a formal and standardised proficiency check as used during the recurrent training. The check should have a satisfactory result before the VTSO can resume his VTS-tasks.

1. **References**

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

* IMO Resolution A.857(20);
* IALA Recommendation V-103;
* IALA Model Course V-103/1;
* IALA Model Course V-103/2;
* IALA Model Course V-103/3;
* IALA Model Course V-103/4;
* IALA Guideline 1103;
* IALA Guideline 1014;
* IALA Guideline 1027;
* IALA Dictionary;
* IALA VTS Manual.

ANNEX A

# 1 sample recurrent training programmeS

In order to assist Competent and/or VTS Authorities in the preparation of programmes of recurrent training, samples are provided within this appendix. These samples have been provided by Competent and/or VTS Authorities and demonstrate how individual approaches have been taken to meet national and/or local requirements.

## 1.1 Sample recurrent training programme conducted over three years

In order to have a full training programme covering the different elements of the VTS task, this example of a recurrent training consists of four parts every year. The goal is to ensure:

* currency behind the radar;
* update of theory as required for the job at hand;
* to understand the broader frame in which the task is carried out;
* to provide an assessment to determine currency of the VTSO.

**Year one**

In year one the VTSO will undertake three separate activities in addition to a process of operational performance monitoring:

* Simulator training;
* Theory update;
* Practical activity.

The VTSO will undertake **simulator training** on non-routine situations. This should consist of a minimum of 2 hours effective training time during which the VTSO should be exposed to situations which do not occur often enough in real life to have sufficient exposure. Nonetheless, these situations require swift and effective responses from the VTSO. The goal is to increase exposure to these kinds of situations and to give the VTSO the opportunity to train the situation several times until they can perform the accompanying tasks with some fluency.

The two hours training time may include briefing and debriefing, since these are also effective components of training. The VTS Authority will have a standardised programme developed for every VTSO during the year. The simulator session is designed to coach the VTSO, consequently the coaching is not directly intended to assess the VTSOs performance. The training is designed for the VTSO to learn and develop his competence. The role of the VTSO should be active during this part of the training, enabling the VTSO to comment on the situation presented during the exercise, to debate solutions with the trainer and to ask to do parts of the training again. The training should be student-centred.

A further component of the year one training is an **update in theory**, either by means of direct training or as e-learning. The topics covered should be determined by the VTS Authority and could include changes in working environment, rules and regulations, human factors, operational procedures, language and communication etc. This part of the training programme is also standardised and should be developed by trainers equipped with a current knowledge with regard to didactics. It is recommended to have a more or less fixed work load. People may be expected to read 6 pages an hour. This should enable the employer to allocate sufficient time to the VTSO to study the material presented.

The final part of the year one training is **practical activity**. The goal of this practical activity is to gain additional knowledge of the environment the VTSO is working in. The content and the amount of time allocated to this activity should be determined by the VTS Authority. Examples of such practical training are visiting another VTS centre, making a trip on a vessel, participating in a project etc. This practical activity should be accompanied by a work book in which the learning goal of the activity is linked to a number of questions, thereby enhancing the learning and integration of this experience into the VTSOs role.

Additionally, during each year, the performance of the VTSO should be monitored as required by IMO Resolution A.857(20) and IALA Recommendation V-103. The VTS Authority may monitor the operational performance of the VTSO by means of reviewing the VTSOs performance and adherence to standard operating procedures.

The VTS Authority may achieve this by means of reviewing recordings of the traffic image and communications as a means to monitor the performance of the VTSO several times a year. The results of this monitoring are placed in a database in order to categorise and therefore gain insight of possible patterns within a team or a VTS centre. Ideally this activity is part of a Safety Management System in which the outcome is recorded. It is highly recommended that the VTS Authority monitors performance at least twice a year and the results of the monitoring should be discussed with the VTSO.

Such monitoring should be accompanied by clear and set agreements to ensure the privacy of the VTSO. It is highly recommended that a protocol is developed which gives insight into the fact that the VTSO is being monitored, what the purpose of the monitoring is, what information is gathered, who has access to this information and what the procedure is for the use of this information. Furthermore, the VTSOs opportunity for receiving feedback on the monitoring should be clarified and what consequences and actions may stem from the monitoring.

**Year two**

The second year follows a similar process to year one with some modifications.

In the second year, the VTSO engages in additional personal development activities. This involves the VTSO selecting and agreeing with the VTS Authority an activity which will improve their performance. This part of the training is to emphasise and stress the VTSOs own personal responsibility for their proficiency and continual professional development. Such activities may include an individual/tailor made simulator session, theory update, additional course, inter-colleague assessment or any other activity which adds to their continual professional development.

**Year three**

The second year follows a similar process to year one with some modifications.

In the third year, the VTSO undertakes an additional period of simulator training focussing on specific areas in detail. This may include emergency situations.

**Proficiency Check**

At least once every three years a proficiency check (profcheck) should be conducted. The aim of the profcheck is to demonstrate the level of competence of the VTSO, measured by an independent examiner/assessor (not being their coach). The profcheck is a formal and standardised assessment to determine the level of competence. The result of this profcheck is provided to the VTS Authority as a conclusion. The outcome of the profcheck does not have an immediate effect on the career of the VTSO but it may influence the need for a training needs analysis. It is highly recommended that the VTSO has at least one appraisal interview a year with VTS management. The outcome of the profcheck should be an integral part of this appraisal interview. As a result, the responsibility for the continued professional development of current VTSOs lies with the VTS Authority.

This sample programme of recurrent training is summarized in the following table:

SIM TRAINING

NON-ROUTINE

PERSONAL DEVELOPMENT / SIM TRAINING

SIM TRAINING

INCIDENT

THEORY

UPDATE

THEORY

UPDATE

THEORY

UPDATE

PRACTICE

PRACTICE

PRACTICE

MONITORING

MONITORING

MONITORING

PROFCHECK

YEAR 1

YEAR 2

YEAR 3

*Table 2 – sample schedule of recurrent training*

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

## 1.2 Sample recurrent training programme conducted over three years

**Maintaining Standards**

VTSOs have established their role as maritime professionals contributing to the safety and efficiency of coastal and port vessel traffic. VTSOs are recognised as professionals and require that the quality of professional skills, competence and standards are assured through a process of annual assessment, refresher training and revalidation.

**Annual Assessment**

The continual assessment of all VTSOs by their respective VTS Authorities is recommended as good practice. Documented evidence of on-the-job formal assessment should be recorded in the VTS certification log at intervals not exceeding one year. If occasions arise where VTSOs are found to be no longer competent, they should be removed from operational duties and given appropriate updating training until such time as they are considered competent.

**Continual Professional Development**

VTS Authorities should provide training and development opportunities for VTSOs to keep them abreast of technological advances, policy and good working practice in VTS.

VTS Authorities are recommended to develop a programme of ongoing Continual Professional Development (CPD) to ensure that the standard of training achieved during V-103/1 VTS Operator/ V-103/2 VTS Supervisor courses as well as V-103/3 On-the-Job is maintained. CPD may consist of the following areas:

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

**Recurrent Training**

VTSOs (including VTS Supervisors) are required to undergo VTS recurrent training every 3 years, either through a formal VTS recurrent training course conducted by an accredited VTS training organisation, or in-house by means of a course approved by the Competent Authority. In-house training by an individual VTS Authority will only be approved where there are appropriate resources and training expertise in order to achieve the recurrent training standard.

A VTS recurrent training course, approved by the Competent Authority, aims to provide professional development training to ensure that the competence, knowledge and skills of VTSOs are being maintained and updated on a periodic basis. The VTS recurrent training course should comprise approximately 10 hours of lectures, presentations and workshops and 10 hours of simulation presented over three consecutive days on an approved course at an accredited VTS training organisation or VTS Authority.

The Competent Authority recognises that the course content will constantly evolve, be job-centred and relate directly to:

* maintenance of operational standards;
* recent changes, current/emerging trends and good practice that have been identified or promulgated by the IMO, IALA, MCA, Harbour Authorities, VTS Authorities, Pilotage Associations, accredited VTS Training Organisations, etc.;
* existing and evolving technological developments that may have an impact on the VTS environment; and
* lessons to be learnt from and relevant recommendations made by the Competent Authority, the marine accident investigation organisations and others as a result of studies/investigations that may have an impact on the delivery of VTS.

The VTS recurrent training course will evaluate a candidate’s ability in the following areas as per IALA model course V-103/1:

* Equipment;
* Use of VHF Radio;
* Personal Attributes;
* Traffic Management;
* Emergency Operations;
* Communications Coordination.

VTS Authorities adopting a process of in-house VTS recurrent training should cover the same course content as outlined for the recurrent training course in the paragraph above. This may be achieved either as a regular course or through a process of CPD to a syllabus approved by the Competent Authority.

The VTS recurrent training programme and Training Record Book should, in the first instance, be submitted to the Competent Authority for approval to ensure compliance with this model course. This process only applies to VTS Authorities conducting in-house training for their own staff. Trainers for in-house refresher training should, as a minimum, be a qualified V-103/4 OJT Instructor. However, training may be supported by instruction from subject matter experts who may not be qualified as VTS OJTIs. VTS Authorities who intend to provide recurrent training to other VTS Authorities are required to obtain accreditation as a VTS training organisation from the Competent Authority which will, in turn, require delivery of the training by appropriately qualified staff.

VTS Authorities opting for a recurrent training course shall ensure that all VTSOs undergo such training every three years. In exceptional circumstances this period may be extended but must not exceed four years.

VTS Authorities conducting VTS recurrent training in the form of CPD may spread the training over a three to four year cycle as best suits the operational needs and requirements of the VTS Authority.

VTS training organisations will issue a certificate on successful completion, and to an appropriate standard, of the recurrent training course. VTS Authorities conducting in-house training should maintain a training record and ensure that the appropriate training has been achieved.