

**Vessel Traffic Services**

**Revalidation and Refresher Training for VTS Personnel**

**A Model Course**

**Edition 1.0**

**[Insert Date]**

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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.

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FOREWORD

The International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) 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 Recommendation V-103 on Standards of Training and Certification of VTS personnel and the IALA model training courses.

This Model Course is based on the draft IALA Model Course V-103/5 – Revalidation and Refresher for VTS Personnel as well as input from the Australian VTS Working Group, whose work is hereby greatly appreciated.

The Model Course is intended to provide Authorities charged with the provision of Vessel Traffic Services guidance on the training of VTS Operators andVTS Supervisors..

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# PART A - COURSE OVERVIEW

## Scope

VTS personnel may, during their careers, need to be trained in any of the following circumstances:

**Refresher Training** – training necessary to maintain a satisfactory level of operational performance. Refresher training (or updating training) may follow an assessment of that performance by the VTS Authority, or may take place as a part of a training programme / continuing professional development. Refresher training should be carried out at regular intervals.

**Revalidation Training** – training that occurs to ensure competence after a break in service. The Competent Authority or the VTS Authority should determine the duration of the break in service, which results in a demand for revalidation training.

Revalidation training may also be required when deemed necessary – either by the Competent Authority or the VTS Authority.

## Objective

The purpose of this Model Course is to assist VTS Authorities and accredited VTS Training Centres and their teaching staff in delivering and organising refresher training and revalidation training for VTS personnel where a formal and more comprehensive course is necessary.

The required standard of competence is considered to be the level of proficiency that should be achieved for the supervision and delivery of refresher training and revalidation training. The training should take into account the level of competence already acquired and build on this to meet the needs of the VTS personnel.

It is not the intention of this Model Course to present Instructors with a rigid teaching package, which they are expected to follow blindly. The knowledge, skills and dedication of the instructors are key components in the transfer of knowledge and skills to those being trained through this Model Course material.

To assist in the development of lesson plans and training courses five levels of competence are used in this Model Course. Each level of competence is defined in terms of the learning outcome, the instructional objectives and the required skills.

Recognising that educational systems and the cultural backgrounds of VTS personnel vary considerably from country to country, the Model Course material has been designed accordingly. The course material also specifies clearly the technical content and levels of knowledge and skill necessary to achieve the standards of competence defined in IALA Recommendation V-103.

In this regard, the defined standards of competence are considered to be the level of proficiency which should be maintained for the proper performance and functions at the VTS Centre in accordance with internationally agreed criteria, incorporating prescribed standards or levels of knowledge, understanding and demonstrated skills.

This course is intended to cover the assessment of continued knowledge and practical competence required for refreshment or revalidation of VTS personnel. The course is in modular format and is aimed at providing the refresher training or revalidation training described in IALA Recommendation V-103,

The course is designed to ensure VTS personnel are provided with realistic exercises for assessment of their competence. These exercises should, wherever practicable, use 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.

The complete course comprises a series of modules, each of which deals with a specific subject representing a requirement of function of VTS personnel.

VTS Instructors should refer to relevant Model Courses in V-103- Detailed Teaching Syllabus, for a description of the content of each subject and learning objectives. The actual level of knowledge, skills and prior educational qualifications of the course participants should be kept in mind. Any differences between the level of skills and competencies of the participants and those identified within the detailed training syllabus should be identified. To compensate for such differences, the VTS Instructor is expected to adjust the course content to recognise knowledge or skills already attained and demonstrated at that particular VTS Centre by the participants. The VTS Instructor should also identify if there is any academic knowledge, skills or technical training that the participants may not have acquired.

## Course Outline

The VTS Instructor should draw up lesson plans based on each section of the syllabus of Model Course V-103/1 and V-103/2 and include references to textbooks and teaching material suggested for the course. Where no adjustment has been found necessary in the learning objectives, the lesson plans may simply consist of the syllabus with keywords or other reminders added to assist the VTS Instructor in making his/her presentation of the material.

In preparing a teaching scheme and lesson plans, the VTS Instructor is free to use any teaching method or combination of methods that will ensure that the participants can meet the stated objectives. However, it is essential that the participants attain all objectives set out in each syllabus.  
  
Lesson plans should contain references to Standard Operating Procedures, textbooks, teaching materials, teaching aids and student material that will be required during the presentation of the course (as per Model Course V-103/1 and V-103/2).



**Instructors**

Authorities should ensure that VTS Instructors conducting training for the refreshing and revalidation of VTS personnel should:

* have a detailed understanding of the training programme and of the specific training objectives for the particular type of training being conducted;
* be appropriately qualified in the task for which training is being conducted;
* have an appropriate balance of professional and teaching qualifications;
* if conducting training with the use of a simulator:
  + have received appropriate guidance in instructional techniques involving the use of simulators; and,
  + have gained practical operational experience on the particular simulator being used.

**Assessors**

Any person conducting assessment of competence of VTS personnel during training should:

* have an appropriate level of knowledge and understanding of the competence to be assessed;
* be qualified in the task for which the assessment is being made;
* have received appropriate guidance in assessment methods and practices;
* have gained practical assessment experience; and
* if conducting assessment involving the use of simulators, have gained practical instruction on the particular type of simulator under the supervision, to the satisfaction of an experienced assessor.

As well as Instructors, Supervisors and Assessors, additional staff may be required for the maintenance of equipment and for the preparations of materials, work areas and supplies for the practical work.

**Implementation**

For the course to run smoothly and effectively, considerable attention must be paid to the availability and use of:

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

Thorough preparation is the key to successful implementation of the course.

**Section 2 - Course Overview**

tand revalidation

**Objective**

Holders of the VTS Certification Log will obtain the requisite skills and knowledge and will demonstrate practical ability to perform their duties subject to the terms set out in IALA Recommendation V-103.

**VTS Certification Log**

Successful completion of this course should be recorded in the individual’s VTS Certification Log, in order to receive the appropriate endorsement.

Upon the satisfactory completion of the assessment process an endorsement in the VTS Certification Log should be a matter for the appropriate Authority..

**Course Intake Limitations**  
VTS Instructors should be aware of the course intake limitations as mentioned in the Model Course V103/1 and V103/2.

**Teaching Facilities and Equipment**

In a refresher or revalidation training the VTS Instructor should take into consideration which is the most appropriate facility, equipment and/or documentation.

**Section 3 – Course Outline**

**Subject Outline for Refresher Course**

Authorities are encouraged to require regular refresher training as per IALA recommendation V-103; in doing so the authorities should determine at which intervals such refresher training should take place. This is to ensure that the VTS personnel maintain a level of competence appropriate to the types of service provided by the VTS Authority.

Insert ‘continual professional development’ blablabla.

Ideally all participants at a refresher course should hold a valid certificate as VTS Operator or VTS Supervisor.  
Authorities may decide that a refresher course may be part of a revalidation training – for instance in connection with partially on the job training.

The course may consist of both theoretical subjects and practical assignments and tasks to be performed by the course participants to ensure competence and confidence as a VTS Operator. For a more detailed subject outline and recommended competence levels, see Model Course V-103/1 and Model Course V-103/2.

Authorities should determine the duration of refresher training taking into consideration the frequency at which refresher courses should be performed.  
Below is shown an example of a two-days course with the associated recommended hours per subject area.  
Authorities should determine how refresher training is conducted, be it classroom courses or simulation exercises. This does not exclude the possibility of combining multiple modules in one course of exercise.

The recommended hours shown in the table are the minimum required for each module and will depend on previous experience, entrance level and requirements of the individual.

|  |  |
| --- | --- |
| Subject Area for VTS Operators  *Subject Area for VTS Supervisors* | Recommended hours |
| Language and communication co-ordination | 4 |
| Traffic Management  *Advanced Traffic Management* | 3  *3* |
| Equipment  *VTS Equipment* | 1  *1* |
| Nautical Knowledge | 2 |
| VHF Radio | 2 |
| Personal attributes  *Additional personal attributes* | 1  *1* |
| Emergency situations  *Responding to emergency situations* | 1  *1* |
| *Administrative functions* | *1* |
| *Legal knowledge* | *1* |

Table 3.1: Subject Outline

Practical Training

In addition to the theoretical subjects, the simulated exercises mentioned below are recommended.

The recommended hours shown in the table are the minimum required for each module and will depend on previous experience, entrance level and requirements of the individual.

|  |  |  |
| --- | --- | --- |
| Subject Area | Assessment criteria | Recommended hours |
| *Basic skills*  Monitoring and identification  Communication co-ordination  Evaluation and interpretation of the traffic situation  Log keeping, recording and reporting | Ability to identify, correctly interpret and handle reports from five simulated vessels. | 2 |
| *Traffic interaction and conflict resolution*  Waterway management in multi-ship scenarios  Anticipation and projection of traffic patterns  Critical areas  Vessels overtaking and approaching each other  VTS sailing plans, including those for deep draught vessels | Ability to identify, correctly interpret and deal with up to five simulated vessels in complex situations.  Ability to prepare VTS sailing plans, to monitor their execution and amend them due to unforeseen circumstances. | 4 |
| *Emergencies and special situations*  Contingency plans  Adverse weather conditions  Special vessels and those with restricted manoeuvrability  Internal and external emergencies | Ability to identify, correctly interpret data and handle reports from 20 simulated vessels during emergencies and special situations. | 3 |

Table 3.2: Practical training exercises

Section 4 - Guidelines for Instructors

Introduction

VTS Operators are appropriately qualified persons performing one or more tasks contributing to the services of a VTS. It is essential that education and training be aimed at minimising incidents due to mistakes or errors of judgement. This Model Course is designed to meet the minimum requirements for revalidation and refresher training.

A sense of responsibility, watchfulness and preciseness characterise a competent VTS Operator. Training and education should therefore aim at stimulating these qualities. This can be achieved by impressing upon participants the importance of proper watchkeeping routines and safe procedures. Participants should also be motivated to respect instructions, rules and regulations that have been adopted with the intention of protecting life, health, material goods and the environment.

Those parts of the subjects that are important from the point of view of safety should be emphasised. The Instructor should therefore be thoroughly acquainted with the relevant rules that regulate vessel traffic services.

It is important to keep in mind the close relationship of all subjects in the VTS Operators course. In particular, Instructors should continuously monitor the personal attributes of the participants and, when appropriate, draw their attention to the need to meet the learning objectives of that module.

In vessel traffic services new methods and equipment are being continually developed. This makes it necessary for instructors to keep up to date in new techniques and in national and international rules and regulations. Instructors should also be encouraged to teach relevant new developments and techniques not mentioned in this syllabus.

Curriculum

With respect to the Course Outline, Instructors are not obliged to follow the sequence of subjects in which they appear, but should organise them in the manner that is considered to be the most effective for the course participants. The success of the course will depend, to a large extent, upon detailed co-ordination of the individual subjects into a coherent teaching scheme. It is important that an experienced Instructor acts as course co-ordinator to plan and supervise the implementation of the course.

The teaching schemes should be reviewed carefully to ensure that:

all of the listed subjects are covered;

unnecessary repetition is avoided; and

essential pre-requisite knowledge at any stage is covered.

Care should be taken to see that items excluded from the syllabus are not introduced, except where necessary to meet additional requirements of the Competent Authority.

The course co-ordinator should monitor the running of the course. There should be ongoing interaction with the Instructors concerning the progress of the participants and any problems that have become apparent. Modifications to the teaching scheme should be made where necessary to ensure that required levels of competence are met. Additional training should be arranged to enable participants requiring remedial training to achieve appropriate competence.

An adequate period of time should be allowed at the end of the course for revision and review of the course content. That period and the time occupied by assessments may be additional to the times shown in Section 3 - Course Outline.

Section 5 - Evaluation or Assessment

Regular assessment of course participants during training should be undertaken. The assessment may be based on the performance and progress of the participants. These assessments may be additional to any examination required for the purposes of certification.

Assessments should use the following five levels to indicate the learning level attained by participants. It is recommended that an average level of three to four should be considered as being satisfactory.

|  |  |  |
| --- | --- | --- |
| LEVEL | CATEGORY | DESCRIPTION |
| LEVEL 1 | RECEIVING | The participant’s willingness to participate in the learning activity. |
| LEVEL 2 | RESPONDING | The participant’s active participation in the learning activity. |
| LEVEL 3 | SIGNIFICANCE | The value that the participant attaches to a particular object, phenomena or behaviour. |
| LEVEL 4 | ORGANISATION | The participant’s ability in bringing together different values, resolving conflicts between them and the building of an internally consistent value system. |
| LEVEL 5 | VALUE COMPLEX | The value system that has been achieved due to contrary, consistent and predictable behaviour for a sufficiently long time for the participant to have developed a characteristic ‘life style’. |

Table 5: Assessment levels

Annex 1

References

IALA Recommendation V-103 - Recommendations on Standards for Training and Certification of VTS Personnel

IALA Model Course V-103/1 – Vessel Traffic Services Operator Basic Training

IALA Model Course V-103/3 – Vessel Traffic Services On-the-Job Training

IALA Guidelines on the Assessment of training requirements for existing VTS Personnel, candidate VTS Operators and the Revalidation of VTS Operator Certificates

The references relevant to the planning of VTS training are listed in respective model courses.

# PART B - TEACHING MODULES

## Module 1 – [insert title]

### Scope

This module describes [insert description]

### Learning Objective

To gain a **basic/satisfactory/detailed** understanding of [insert objective].

### Syllabus

Lesson 1 [insert title]

1. [insert subject]
2. [insert subject]
3. [insert subject]
4. [add further subjects as required]

Lesson 2 [insert title]

1. [insert subject]
2. [insert subject]
3. [insert subject]
4. [add further subjects as required]

## Module 2 – [Insert title]

### Scope

This module describes [insert description]

.

### Learning Objective

To gain a **basic/satisfactory/detailed** understanding of [insert objective]..

### Syllabus

Lesson 1 [insert title]

1. [insert subject]
2. [insert subject]
3. [insert subject]
4. [add further subjects as required]

Lesson 2 [insert title]

1. [insert subject]
2. [insert subject]
3. [insert subject]
4. [add further subjects as required]

## Module – [etc. Add further modules as required]

## Module # – Site Visit [if appropriate]

### Scope

To visit [insert details]

### Learning Objective

[insert objective].

### Syllabus

[insert details of visit]