Input paper: [[1]](#footnote-1)VTS57-10.1.1

Input paper for the following Committee(s): Purpose of paper:

**□**ARM **□**ENG **□**PAP **X** Input

**□**ENAV **X**VTS **□** Information

Agenda item[[2]](#footnote-2) 10.1

Technical Domain / Task Number2 Task 3.8.7c

Author(s) / Submitter(s) China Maritime Safety Administration

Proposal on Revising Model Course C0103-5

# Summary

With the development of vessel traffic service (VTS) and the updating of related technologies, the requirements of the existing C0103-5 model course have seriously lagged behind the current development of VTS and cannot meet the actual operational needs of VTS. This document proposes suggestions for improvement from the perspectives of relevant definition descriptions, details of revalidation process, process for the revalidation of VTS qualifications, and etc. in the model course. It is believed that the revalidation training of VTS supervisors and training instructors requires more comprehensive analysis on the needs for training and performance assessment. Based on the above, specific suggestions are made to increase the use of data analysis tools in the collection of the work performance data of VTS personnel to assist assessment and decision-making, and further optimize the process for the revalidation of VTS qualification and certification.

## Purpose of document

This document aims to provide input files for the 3.8.7c task working group to promote the revision and improvement of the C0103-5 model course, and to facilitate the development of model courses that are in line with practical operational needs.

## Related documents

VTS56-6.1.1 VTS Task Plan 2023-2027

VTS56-13.1 Report of VTS56

Task-C0103.5 Review - based on VTS56-6.1.2

Discussion session at VTS56-C0103-5 review Summary of comments

G1156 Recruitment, Training and Certification of VTS Personnel

IMO Resolution A.1158(32)

R0103 Training and Certification of VTS Personnel

C0103-1 VTS Operator Training

C0103-2 VTS Supervisor Training

C0103-3 VTS On-the-job Training (OJT)

C0103-4 VTS On-the-Job Training Instructor

C0103-5 The Revalidation Process For VTS Qualification And Certification

# Background

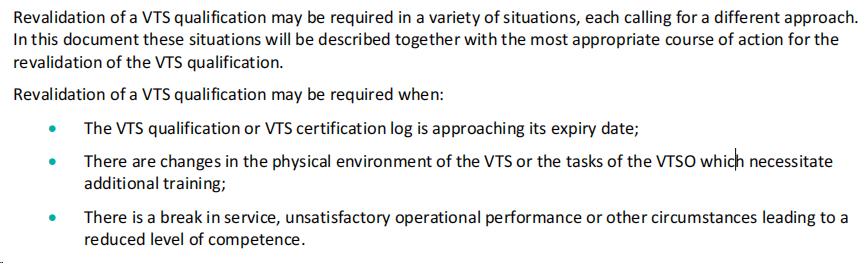
Based on the revision task of C0103-5 revalidation process and the content update of IMO A.1158 (32) resolution and in light of China's experience in VTS operation and practice, modification suggestions are proposed.

# Suggested content

## Clarification of related definition description

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Part A 1.1 PURPOSE OF THE MODEL COURSE of Model Course C0103-5 describes the specific scenarios for the revalidation of VTS qualification, but contains no explicit provisions on the situation when the VTS qualification has expired (see Figure 1). In actual VTS operation, there are situations where VTS qualifications are about to expire, but due to factors of force majeure (e.g. epidemics), the revalidation process cannot be carried out in a timely manner, resulting in the expiration of the qualification. Therefore, it is recommended to add the scenarios on the applicability of expired VTS qualification, to set the period range of qualification expiration time and clarify the specific types of training that need to be attended based on the duration of VTSO qualification expiration and whether or not the officer is still engaged in VTS work, as well as referring to the relevant content of Discussion session at VTS56-C0103-5 review (see Table 1).

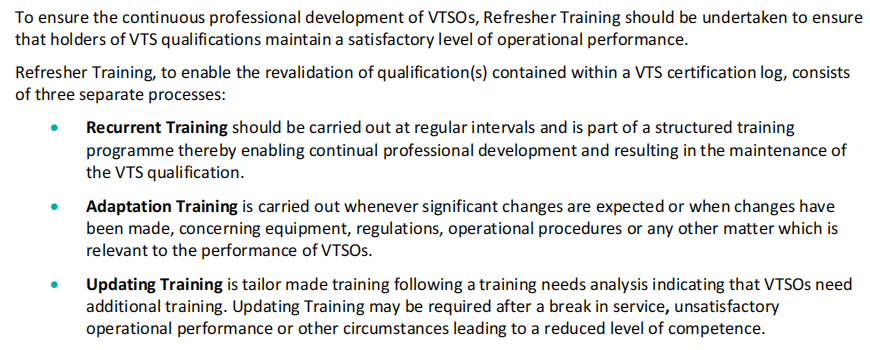


1. Description of the applicability of VTS qualifications in C0103-5
2. Types of Training Required to Participate in When the Qualification Certification for ITS Expires and is Valid Again

|  |  |  |  |
| --- | --- | --- | --- |
| Qualification  Whether expiration date  still engaged  in VTS work | **Within 3 months** | **Within 3-12 months** | **More than 12 months** |
| **YES** | Updating training | Updating training | Adaptation training |
| **NO** | Updating training | Adaptation training | Adaptation training |

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Part A 1.2 USE OF THE MODEL COURSE of Model Course C0103-5 describes that the training for the revalidation of VTS qualifications includes three independent processes: Recurrent Training, Adaptation Training, and Updating Training (see Figure 1). There is a lack of clear applicability scenarios between the descriptions of adaptation training and updating training. The updating training may be required after a break in service, unsatisfactory operational performance or other circumstances leading to a reduced level of competence. However, if the service of a VTSO is interrupted for too long, it means that there have been significant changes in the VTSO's operational level and human factors. In such cases, the adaptation training mentioned in the applicable scenarios of "any other matter which is relevant to the performance of the VTSO" is also applicable. Therefore, it is recommended to add a clear setting: those whose VTSO services are interrupted for 3-12 months should participate in the update training, and those whose services are interrupted for more than 12 months should participate in adaptation training. At the same time, the definition of Adaptation Training in the original text will be changed from "any other matter" to "any other external matter" to clarify that the adaptation training mainly targets changes concerning the external environment, rather than changes in the VTSO's own abilities or states.



1. C0103-5 PART B Definition and description of the revalidation of VTS qualification training

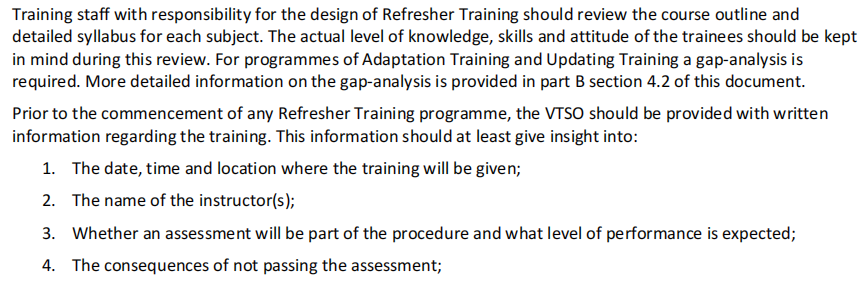
## Modification of the details of revalidation process

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At present, the G1156 guideline and the C0103-5 model course recommends that the Recurrent Training be carried out at intervals of not exceeding five years. According to the requirements of revalidation process training, relevant adaptation training or updating training should be conducted based on changes in VTS personnel or environment. However, if a large number of adaptation training or updating training sessions are conducted within a five-year cycle, although corresponding training is taken to respond to each change, the cumulative amount is sufficient to reflect that the entire VTS system environment has undergone many changes, and the audience of adaptation training or updating training is often a small number of personnel. In such cases, although it is not yet the time window for the recurrent training, it is necessary to conduct a recurrent training with a wide coverage of personnel. Therefore, it is recommended to count the frequency of adapting training and updating training, and set a specific threshold (e.g. 5 times). When the number of adaptation training and updating training sessions conducted within a time interval of less than 5 years reaches the threshold, recurrent training will be triggered (that is, if the frequency of adaptation training and updating training exceeds 5 times, a mandatory recurrent training will be conducted).

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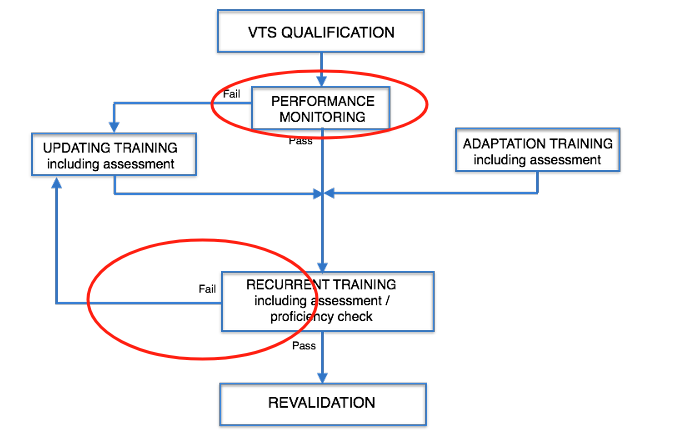
PART B of the C0103-5 Model Course mentions that "Training staff with responsibility for the design of Refresher Training should review the course outline and detailed syllabus for each subject. The actual level of knowledge, skills and attitude of the trainees should be kept in mind during this review. For programmes of Adaptation Training and Updating Training a gap-analysis is required" (see Figure 3). It is recommended that in PART B, when analyzing the training needs gap and designing course content, the training staff should use data analysis tools to comprehensively evaluate the course outline and detailed teaching plan, ensuring that learning objectives are clear, measurable, and highly relevant to actual work needs. For example, by analyzing previous training effectiveness data, the optimal training time period for each teaching module can be determined and properly combined with teaching methods or modes. In addition, Part B also mentions that "Prior to the commencement of any Refresher Training programme, the VTSO should be provided with written information regarding the training", but the content required for such written information does not cover any content related to the course outline or detailed course plan. It is suggested to add the requirement for written information to include course outlines or detailed course plans, in order to facilitate the VTS supervisory authority in reviewing and soliciting VTSO opinions, ensuring the effectiveness and applicability of the actual training course needs.



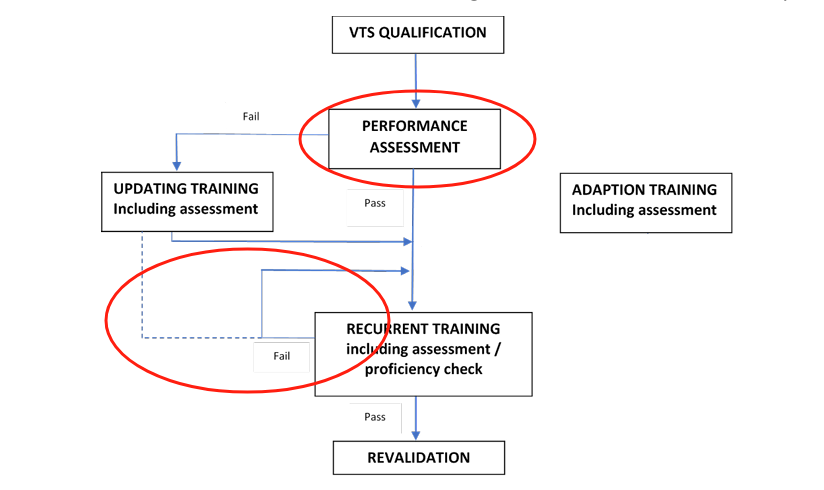
1. C0103-5 PART B Description of Model Course Delivery

## Modification of the process for the revalidation of VTS qualifications and related description to maintain consistency with the guidance document

The process for the revalidation of VTS qualifications required in the C0103-5 model course (see Figure 4) is not consistent with the process required in IALA G1156 (see Figure 5) (highlighted in red). One inconsistency lies in the result orientation in the case where the recurrent training fails to pass the assessment, and the other is the inconsistent description of VTS qualification performance assessment. It is recommended to update the process for the revalidation of VTS qualifications in the C0103-5 model course and replace all "PERFORMANCE MONITORING" in the model course with "PERFORMANCE ASSESSMENT" to ensure that the relevant content of the model course is consistent with the latest version of the guidance document G1156.



1. The Process for the revalidation of VTS qualifications in C0103-5

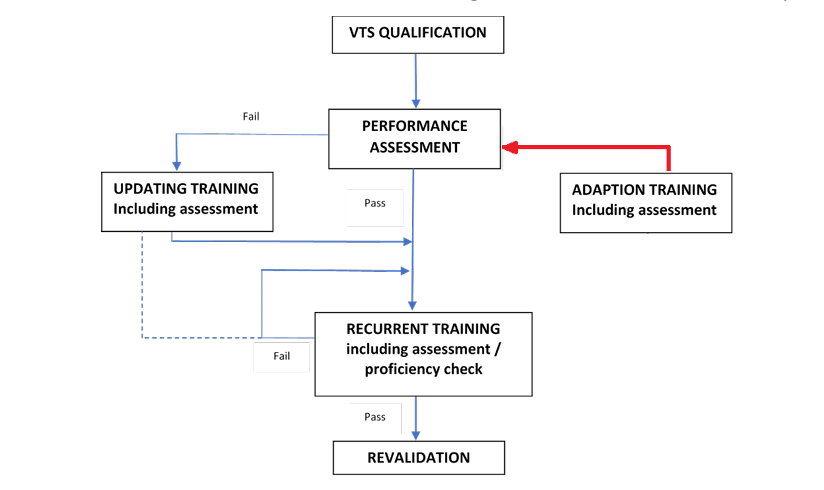


1. The Process for the revalidation of VTS qualifications in G1156

## Optimization of the Revalidation Training Process

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According to the current G1156 guidelines on the process of revalidation of VTS qualifications, VTSOs do not participate in the performance assessment of the year in which they have already received the adaptation training (G1156 guidelines and C0103-5 demonstration courses recommend Performance Monitoring should be carried out at regular intervals, preferably annually), but instead participate in recurrent training (G1156 guidelines and C0103-5 demonstration courses recommend that Recurrent Training be carried out at intervals of not exceeding five years). It should be noted that in actual VTS operation, even if a VTSO participates in the adaptation training as required and passes the assessment, it cannot guarantee that his/her actual performance will still be satisfactory in the year or certain work cycle after passing the training. Therefore, it is recommended to modify the process for the revalidation of VTS qualifications. Even after VTSOs pass the adaptation training, they still need to participate in the performance assessment of the current year to effectively verify their actual work performance and ensure that they meet the job qualifications (Figure 6 shows the modified process for the revalidation of VTS qualifications).



1. Modified Process for the revalidation of VTS qualifications

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When there is a change in the position of VTS supervisors or training instructors, a break in service, or significant changes in equipment, technology, environment, regulations, operating procedures, etc., the adaptation training is required. However, compared to VTSOs who have been engaged in the same VTS area, even if a VTS supervisor or training instructor has passed the adaptation training, his/her proficiency and operational level in the environment, equipment, etc. of the VTS area may not be sufficient to be competent for the position of supervising or training those VTSOs who have been engaged in the same VTS area. Based on the content of the Discussion session at VTS56-C0103-5 review, it is necessary to consider adding training for VTS supervisors and training instructors that differs from the revalidation process for VTSOs, with a focus on practical operations. Therefore, it is recommended to add performance assessment for VTS supervisors and training instructors for the year in which they pass the adaptation training or updating training to ensure their competency, and use the data analysis tools mentioned in 3.2.2 above during the performance assessment. The work performance of VTS personnel can be recorded using a unified data collection template, including daily operation data (such as accuracy and timeliness of ship information recording), emergency situation handling data (such as first response time), and communication and collaboration data (such as internal communication frequency, success rate of communication with ships), etc., to form a corresponding database. Quantitative analysis can be carried out using data analysis tools to visually display the actual work performance of VTS supervisors and training instructors, providing reference for obtaining more accurate performance assessment results and the future training.

# Action requested OF the committee

Please take note of the content provided in this document and adopt it as a reference when revising the C0103-5 model course.

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-1)
2. Leave open if uncertain [↑](#footnote-ref-2)