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| IALA Guideline |

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assessing candidates’ personal ATTRIBUTES FOR vts operator recruitment

Note: Document footers are incorrect, new template to be used in the next version of the draft guideline.

1st intersessional meeting - May 14th, 2025: reviewed the draft guideline and shared the interim results of the questionnaire

VTS58 1st session – September 23rd, 2025: shared full questionnaire results and reviewed the draft guideline

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# INTRODUCTION

IMO Resolution A.1158(32) Guidelines for Vessel Traffic Services emphasizes that:

“A major factor in the operation of VTS is the competence of their personnel.”

Similarly, IALA G1156 Recruitment, Training and Certification of VTS Personal highlights the importance of having policies and processes for the selection and recruitment of VTS personnel. This may include minimum entry requirements such as:

* prior skills and knowledge;
* maritime experience and education;
* personal suitability characteristics; and
* medical fitness requirements.

These documents recognise that personal attributes are as important as technical skills and experience for VTS personnel. Assessing a candidate’s personal attributes and overall suitability should be incorporated into the selection process. This ensures that candidates bring not only the right knowledge but also the aptitudes and behaviours needed to succeed in the VTS role.

Assessing of personal attributes is one step in the recruitment process designed to determine the suitability of a candidate.

# DOCUMENT PURPOSE

The purpose of this document is to provide guidance on the key personal attributes for VTS operators, as well as the methods to assess these qualities during the recruitment process.

It aims to support competent authorities, VTS providers and training organizations in identifying and selecting more suitable candidates who possess the necessary skills, attitudes, and competencies to perform effectively in critical maritime environments.

This document is not intended to replace existing national legislation or established hiring practices but to complement them by offering additional considerations for enhancing the selection process.

*This Guideline is not associated with an IALA Recommendation but is connected to IALA Standard S1040 relating to the implementation and operation of VTS and their associated recommendations, guidelines, and model courses. This Guideline is an informative document and reflects best practices, but with which it is not necessary to comply.*

# aptitudes for vts operators

To perform effectively in a VTS role, candidates need to possess a combination of aptitudes and behaviours. These characteristics support the cognitive, emotional, and interpersonal demands of the job, particularly in high-pressure, safety-critical environments.

## aptitudes

* An aptitude is defined as the natural capacity to learn or understand; intelligence, quick-wittedness, readiness. The aptitudes of VTS operators are listed below. They are ranked from highest to lowest, based on a 2025 questionnaire that identified the aptitudes and behaviours demonstrated by successful VTS operators:Situational awareness;
* Decision making;
* Prioritization;
* Ability to detect abnormalities;
* Reaction time;
* Synthesize (process) information from multiple inputs;
* Spatial reasoning or Visualization;
* Multitasking;
* Ability to give, receive and act upon feedback;
* Coping with stress;
* Recognize patterns;
* Memory – short term recall;
* Arithmetic reasoning;
* Empathy; and
* Critical thinking.

## behaviours

* A behaviour is the manner of conducting oneself in the external relations of life; demeanour, deportment, bearing, manners. The behaviours of VTS operators are listed below. They are also ranked from highest to lowest, based on the questionnaire:Responsibility;
* Remains calm and composed in difficult situations;
* Sense of duty, understand the value of their role;
* Maintain attention for an extended time, not easily distracted by external factors;
* Teamwork, being able to work with others;
* Initiative and proactivity;
* Maintain focus during periods of low or intermittent activity;
* Honesty, integrity;
* Adaptability, flexibility;
* Ability to be concise;
* Self-motivation, being able to work independently;
* Maintain effectiveness in single person operations;
* Assertiveness;
* Service or client oriented; and
* Effective communication skills.

# ASSESSMENT METHODS

To gain a comprehensive understanding of a candidate’s abilities and suitability, a range of assessment methods should be considered. These may include:

* psychometric tests;
* practical tests or exercises; and
* interviews.

Relying solely on a single method provides limited insight into a candidate’s aptitude and behavioural suitability, particularly for a role as a VTS operator. To ensure a more accurate evaluation, a multi-method assessment approach is encouraged.

Designing an effective recruitment process may require expert input. It is also recommended to consider utilizing services offered by external providers or third-party organizations for specific assessment components. This helps ensure that all tests and exercises are appropriately designed to complement the interview process and provide a thorough evaluation of each candidate’s potential.

Depending on the nature of the test and the resources available, assessment methods may be conducted in one of two ways:

* in person; or
* online via computer-based platforms.

Psychometric assessments and certain aptitude tests are often well-suited for remote delivery, while practical exercises or simulations may require on-site administration. Choosing the appropriate delivery mode for each method is essential to ensure valid, authentic, current, sufficient and reliable in the evaluation process.

## PSYCHOMETRIC TESTS

A psychometric test is designed to provide a quantitative analysis of a person's mental capacities or personality traits, typically as shown by responses to a standard series of questions or statements.

The contents of a psychometric test are generally divided into two categories:

* Aptitude tests, which measure the intellectual abilities required for work; and
* Personality tests, which aim to understand the candidate's character.

### APTITUDE TESTS

Aptitude test is designed to determine a person's capacity in any given skill or field of knowledge, particularly those relevant to job performance. Rather than focusing on academic knowledge or school-based learning, these tests evaluate practical thinking skills such as logical reasoning, information processing, and problem-solving ability. These are competencies that cannot be easily improved through short-term memorization or test preparation—they are typically developed through consistent, long-term habits and experiences.

Aptitude tests are generally divided into two main areas:

* Verbal Reasoning

This assesses the ability to accurately understand the logic and argument of written texts, including vocabulary, reading comprehension, and identifying key messages.

High-scoring candidates tend to read quickly and understand texts logically. They are often skilled communicators with strong language habits.

Low-scoring candidates, on the other hand, often lack regular reading habits and may struggle to grasp written content accurately. This can lead to misunderstandings in communication-heavy roles.

* Numerical and Logical Reasoning

This assesses the ability to perform calculations, interpret charts and graphs, and apply logic to solve problems efficiently.

High-scoring candidates remain calm under pressure, read problems carefully, and select efficient strategies. They are comfortable with numbers and suited for structured tasks like accounting or programming.

Low-scoring candidates, by contrast, tend to skip careful reading and rely on guesswork. They may struggle with division, percentages, and overall numerical processing.

Aptitude tests may provide insight into a candidate’s abilities such as:

* arithmetic reasoning;
* memory – short term recall;
* reaction time;
* recognize patterns;
* situational awareness;
* spatial reasoning or visualization;
* synthesize (process) information from multiple inputs; and
* maintain attention for an extended time, not easily distracted by external factors.

These general intellectual abilities have been shown to be predictive of job performance. While aptitude test scores are important for selection, there is no universal passing score. Each organization should set its own standards based on the skills it needs.

### PERSONALITY TESTS

A personality test assesses various traits related to job performance, such as interpersonal style, work attitude, and goal orientation, based on a candidate’s responses to questions about their everyday behavior and ways of thinking.

The results quantify how well the candidate is likely to adapt to specific job roles and workplace environments, allowing employers to evaluate whether the candidate’s characteristics align with the qualities they seek and to identify any discrepancies from the impression formed during the interview.

Personality tests are used to gain a deeper understanding of the candidate’s individual strengths/weaknesses and to supplement the findings from interviews.

Personality tests may provide insight into a candidate’s abilities and attributes such as:

* be able to give, receive and act upon feedback;
* coping with stress;
* decision making;
* empathy;
* prioritization;
* adaptability, flexibility;
* assertiveness;
* honesty, integrity;
* initiative or proactivity;
* maintain attention for an extended time, not easily distracted by external factors;
* maintain effectiveness in single person operations;
* maintain focus during periods of low or intermittent activity;
* remains calm and composed in difficult situations;
* responsibility;
* self-motivation, able to work independently; and
* teamwork, able to work with others.

## pRACTICAL testS OR EXERCISES

Practical tests or exercises aim to simulate key aspects of the VTS work environment, allowing recruiting team members to observe how candidates respond to realistic tasks and challenges. These assessments provide valuable insights into a candidate’s applied skills, cognitive processes, and behavioural tendencies that may not be fully captured through psychometric testing or interviews alone.

Unlike psychometric tests that focus on abstract reasoning or personality traits, practical exercises are designed to evaluate real-time performance, including how candidates process information, make decisions under pressure, and communicate in dynamic environments. These exercises can take many forms, and should be tailored to reflect the demands of VTS operations while remaining appropriate for candidates with diverse levels of maritime experience.

When incorporating practical tests into the recruitment process, it is essential to:

* Define clear assessment criteria based on the aptitudes and behaviours identified as critical for VTS roles;
* Provide structured briefing to ensure candidates understand the objectives and context of the exercise;
* Ensure fairness and consistency, especially when comparing candidates from different backgrounds; and
* Train assessors to observe not just task completion, but also how tasks are approached and what reasoning is applied.

Practical tests should not be overly complex or technical, particularly for candidates who have not yet undergone VTS training. Instead, exercises should focus on assessing potential, not current proficiency.

### VTS-SIMULATION

IALA G1027 acknowledges the use of VTS simulation when assessing a candidate’s suitability to operate in a VTS. The inclusion of a simulation exercise in the recruitment process will provide insight how a candidate may behave in a VTS training and in a VTS operational environment.

When conducting simulation in the recruitment process attention should be given to the candidate’s background and experience. Furthermore, expectations and assessment of the candidate’s performance should be different from those during participants in a VTS training course. The exercise should be simple and focused on assessing the candidate’s general abilities. The candidate should be briefed of the expectations prior to the exercise and how to operate the equipment.

A simulation exercise may give insight in a candidate’s ability to:

* adapt to a new working situation;
* perform under pressure;
* switch from a local language to English;
* analyse and response to simple traffic situations;
* communicate clearly (though likely without VTS communication procedures); and
* dare to take initiative if required by the circumstances.

It is essential that the team assessing the exercise understands the principles of a simulation exercise and is aware of the qualities that determine a candidate’s suitability.

A simulation exercise should not be used as a stand-alone procedure but complements a wider recruitment process.

### ACCURACY UNDER TIME PRESSURE TEST

Explanation

### WORKING MEMORY TEST

Other elements to be added?

## INTERVIEW

The interview plays a critical role in assessing a candidate’s motivation, communication skills, personal attributes, and alignment with the responsibilities of the VTS role. While psychometric and practical tests provide measurable data, interviews allow assessors to explore how and why a candidate behaves in certain ways. They also provide an opportunity to evaluate interpersonal qualities such as calmness, clarity of expression, adaptability, and judgment under pressure. In addition, interviews help determine whether the candidate can integrate smoothly into the team and contribute effectively as a member of the organization.

At the same time, the interview enables candidates to assess the organization. Through direct interaction with interviewers, candidates can consider whether they can adapt to the organizational culture, apply their abilities effectively, and feel comfortable in the working environment. In this way, interviews serve as a two-way process that helps prevent mismatches in expectations between the candidate and the organization.

To ensure fairness and effectiveness, careful preparation and structured execution are essential when conducting interviews.

Preparation before the interview should include the following points:

* Set Evaluation Standards

Decide in advance what aptitudes and behaviours the organization is looking for in a candidate. Having clear standards helps make sure that different interviewers judge candidates in the same way. To keep the process fair and reduce bias, tools such as evaluation sheets or scoring rubrics should be prepared and shared among assessors before the interview.

* Prepare a Question List

Make a list of questions that go beyond just checking the resume or work history. Questions should aim to bring out the candidate’s qualities, experiences, and motivations, giving a clearer picture of their character, suitability, and commitment to the role.

* Trained Assessors

Interviews should be conducted by assessors who are trained in objective evaluation techniques, including recognizing behavioural indicators and avoiding common biases. Ideally, the panel should include experienced VTS personnel or instructors who can relate candidate responses to operational realities.

When conducting the interview, the following practices are recommended:

* Balanced Atmosphere

Create an interview environment where candidates feel at ease and able to speak openly. Using a respectful and professional tone helps candidates relax and give honest, useful answers. At the same time, interviewers should stay objective and avoid becoming too casual, so the interview keeps its role as a fair and serious assessment.

* Structured Approach

A structured interview helps keep the process fair and consistent.

Begin by giving a brief explanation of the organization and the role of a VTS operator, so both sides share the same understanding and reduce the risk of later mismatches.

Ask questions based on the resume and work history to confirm accuracy, then continue with the prepared question list to explore relevant competencies and experiences.

Finally, leave time for the candidate to ask their own questions. This helps address any doubts they may have and ensures expectations are clear on both sides.

* Systematic Scoring

Evaluate responses against pre-defined evaluation standards so that judgments are based on observable behaviours and aptitudes rather than subjective impressions.

Keeping records of each interview supports fair and objective decisions. When there are multiple interviewers, share and compare notes to avoid biased judgments and ensure a balanced evaluation.

Web-based interviews offer advantages such as widening access to candidates and reducing the time and cost of selection. However, they also have challenges, including possible communication difficulties, technical issues, and less opportunity to convey the organization’s atmosphere.

When using online interviews, it is important to prepare carefully—for example, by choosing reliable tools, checking equipment in advance, and speaking more clearly, slowly, and expressively than usual. A hybrid approach, combining both online and face-to-face interviews, can help balance efficiency with building stronger connections.

# use of assessment outcomes

Assessment results should not only serve as a basis for hiring decisions but also provide long-term value for training and career development.

* Feedback to Candidates

Assessment outcomes can help candidates gain a better understanding of themselves. Even brief or structured feedback supports professional growth and may improve future performance.

* Reference for Placement Decisions

For organizations recruiting for multiple VTS centers, assessment results can guide optimal placement. Each location may differ in working environment, staffing structure, workload, and office atmosphere. Matching candidates to environments where their strengths align enhances their ability to adapt and succeed.

* Support for OJT Guidance

Assessment results can also serve as a reference for OJT instructors and supervisors when guiding new operators. The relationship with instructors and the way colleagues interact during the initial assignment strongly influences a new operator’s adjustment and retention. By understanding the individual’s characteristics in advance—such as how responsibilities can be assigned effectively, the situations where they may face difficulties, and the best ways to provide support—instructors and supervisors can improve communication and help new operators adapt more smoothly to their role.

# Review and Update of Assessment Methods

Assessment methods and criteria should be reviewed and updated regularly to ensure they remain relevant and effective. With the development of MASS and ongoing technological advances, operational requirements and the competencies required for VTS operators may change over time. In addition, the job market and candidate profiles can evolve, which may require adjustments in evaluation methods.

Regularly revisiting interview questions, scoring rubrics, and evaluation sheets helps maintain fairness and accuracy in candidate selection. This process also ensures that the assessments continue to reflect the qualities and behaviours most important for success in VTS roles. Adjustments may include adding, removing, or refining criteria based on operational feedback, changes in organizational priorities, or lessons learned from previous recruitment rounds.

By keeping assessment tools up to date, organizations can continuously improve their recruitment processes, better identify suitable candidates, and support both operational effectiveness and long-term retention.

# DEFINITIONS

The definitions of terms used in this Guideline can be found in the *International Dictionary of Marine Aids to Navigation* (IALA dictionary) at <http://www.iala-aism.org/wiki/dictionary> and were checked as correct at the time of going to print. Where conflict arises, the IALA Dictionary should be considered as the authoritative source of definitions used in IALA documents.

To be determined as document is progressed.

# abbreviations

MASS Maritime Autonomous Surface Ships

VTS Vessel Traffic Services

# references

References are sources directly referred to in the running text and should be given a sequential number, starting at 1. The reference number should be included as close to the referenced text as possible and included as a number within square brackets.

The reference should be listed in the References section in the following syntax using the **Reference** **list** style:

[Author surname,] <space> [initial.] <space> [year] <space> [title.]

For example:

“Hawking also suggests ways that quantum mechanics can be combined with the theory of special relativity [1]. This text builds on his discussion of the instability of black holes described in *A Brief History of Time* [2].”

should be included in the reference list as follows:

1. Hawking, S. (2001) The Universe in a Nutshell.
2. Hawking, S. (1988) A Brief History of Time.

The **Reference list** style will add a number for the reference as soon as you start typing the text and the paragraph will automatically align with the first line of text. Press return to enter a new reference in the list.

To be determined as document is progressed.

1. IMO. Resolution A.1158(32) on Guidelines for Vessel Traffic Services
2. IALA. Guideline G1156 Recruitment, Training and Certification of VTS Personnel