

PURPOSE

To define the principles, procedures, and responsibilities for conducting fair, valid, and reliable assessments of trainees' knowledge, skills, and competencies. It ensures that all assessments are carried out in a consistent and secure manner, safeguarding the integrity of results and supporting the certification of trainees in compliance with MARINA and STCW standards.

SCOPE

Covers all theoretical, practical, and simulator-based assessments conducted by SEATECH, including formative and summative, invigilation, grading, re-sits, and recordkeeping. It applies to all trainees, instructors, assessors, and administrative personnel involved in the assessment process, and establishes the requirements for assessment conduct, security and validation.

NORMATIVE

The following MARINA Memorandum Circulars form the basis for the policies, standards, and requirements used in the Assessment System for SEATECH Distance Learning courses. These documents provide the legal and regulatory framework for conducting assessments, ensuring that evaluation of both theoretical knowledge and practical skills is consistent, fair, and aligned with the STCW Convention.

REFERENCES

REFERENCES	TITLE	DATE ISSUED
MARINA Memorandum Circular No. SC-2021-10	Revised Guidelines on Training and Assessment of Seafarers by Distance Learning and E-Learning in Accordance With The provisions of Regulation 1/6 Of The STCW Convention, 1978, As Amended	29 Dec. 2021
MARINA Memorandum Circular No. SC-2021-09	Policies, Rules and Regulations on the Approval of Training Courses under the STCW Convention, 1978, as Amended	29 Dec. 2021
MARINA Memorandum Circular No. SC-2021-08	Policies, Rules, And Regulations on the Accreditation Of Maritime Training Institutions and Assessment Centers	29 Dec. 2021
MARINA Memorandum Circular No. SC-2022-05	Standards For Mandatory Training Courses Under The STCW Convention, 1978, As Amended	14 Nov. 2022

MARINA Memorandum Circular No. SC-2021-02	Revised Rules on the Monitoring of Approved Training Courses (ATCs) conducted by the Maritime Training Institutions (MTIs) And Assessment of Seafarer’s Competence carried out by Accredited Centers (ACs).	18 March 2021
MARINA Memorandum Circular No. SC-2022-03	Policies, Rules and Regulations for the Approval of the Conduct of Practical Assessment for Management Level, Operational Level, Support Level, Electro-Technical Officer (ETO) and GMDSS Radio Operators	20 May 2022

DEFINITION OF TERMS

Learning Management System (LMS) – The online platform used by SEATECH to deliver, manage, and monitor Distance Learning, E-Learning, and blended learning courses. The LMS is named Seatech Distance Learning System (SDLS), which supports instructional delivery, assessments, and learner tracking.

Seatech Online Portal – The web-based system used for learner enrollment, payment processing, and access to institutional services, which may be linked to the LMS.

Formative Assessment – An assessment conducted during or after instructional units to measure learner understanding and support learning progression prior to final evaluation.

Summative Assessment – A final assessment conducted at the end of a course to determine whether a trainee has achieved the required competencies for completion and certification.

Practical Assessment – An evaluation method used to measure a trainee’s ability to perform required skills and tasks based on established performance criteria.

Simulator Assessment – A performance-based assessment conducted using approved simulator systems to evaluate competency through scenario-based exercises.

Assessor – A qualified and authorized individual responsible for evaluating trainee performance against established competency standards in accordance with STCW Convention, 1978 requirements and institutional procedures.

Invigilator – A designated personnel responsible for supervising and ensuring the integrity of assessments conducted either onsite or in controlled examination environments.

Re-sit – An additional assessment opportunity granted to a trainee who did not achieve the required passing standard during the initial attempt.

Training Completion and Records of Assessment (TCROA) – The official document that records assessment results and serves as evidence of competency for submission to MARINA MISMO system and institutional records.

Geo-fencing – A system-based assessment integrity control that verifies whether a trainee is accessing assessments within approved locations or conditions.

Geo-mapping – The process of recording and verifying trainee location data during assessment activities for monitoring and audit purposes.

Activity Log – A system-generated record of user activities within the SLDS, including login access, module progress, assessment actions, and system events.

Appeal – A formal request by a trainee to review or reconsider an assessment result in accordance with institutional policies and procedures.

Assessment Tool – Any approved instrument used to measure competency, including written examinations, checklists, rubrics, rating sheets, and practical evaluation forms.

I. FORMATIVE ASSESSMENT

Formative assessments shall be conducted at the end of every lesson, topic, or module to ensure that trainees actively engage with the course content and achieve the intended learning outcomes. These assessments are embedded in the Seatech Distance Learning System (SDLS) and form part of the overall grading system.

Completion of the formative assessment is mandatory. Trainees shall complete the required assessment within the prescribed period before they are allowed to proceed to the next lesson, topic, or module in the LMS.

Formative assessments consist of questions designed to evaluate the trainee's comprehension, retention, and application of the lesson discussed. Assessment results and scores shall be automatically recorded and maintained in the SDLS for monitoring and evaluation purposes.

Guidelines:

1. Instructors shall inform trainees at the end of each lesson, topic, or module that the formative assessment must be completed within the prescribed timeframe.
2. Trainees shall complete all required formative assessments before access to the succeeding lesson, topic, or module is granted in the LMS.
3. The LMS shall automatically restrict progression to the next module for trainees who fail to complete the required formative assessment.
4. Scores obtained in the formative assessments shall constitute twenty percent (20%) of the trainee's overall grade.

5. Any technical issues encountered during the assessment shall immediately be reported to the instructor, LMS Administrator, or IT Support for appropriate action.
6. Trainees may review their assessment results and seek clarification from the instructor regarding items or topics requiring further discussion.

II. SUMMATIVE ASSESSMENT (ONSITE)

Summative assessments shall be conducted at the end of the training course to evaluate the trainee's overall knowledge, understanding, skills, and competence in relation to the course learning outcomes and requirements. The summative assessment is mandatory and shall determine the trainee's eligibility for course completion and certification.

Summative assessments shall be conducted onsite at the approved training facility in accordance with the applicable provisions of MARINA Circular No. 2021-09 and MARINA Circular No. SC-2021-10. The assessment may be administered through the Seatech Distance Learning System (SDLS), as applicable, while maintaining the integrity, confidentiality, and security of the assessment process.

Guidelines:

1. Trainees shall be informed in advance of the summative assessment schedule, instructions, requirements, and assessment procedures.
2. Only trainees who have completed all required training modules, formative assessments, attendance requirements, documentary requirements, and payment obligations shall be eligible to undergo the summative assessment.
3. Summative assessments shall be administered onsite by authorized, qualified, and MARINA-accredited assessors in accordance with approved assessment procedures and standards.
4. Summative assessments shall measure the trainee's achievement of the required learning outcomes, knowledge, understanding, and competencies prescribed for the course.
5. The summative assessment shall constitute eighty percent (80%) of the trainee's overall grade.
6. Trainees shall complete the summative assessment within the prescribed period. Failure to complete the assessment without valid justification may result in a failing grade or requirement for reassessment in accordance with existing policies.
7. Assessment results and ratings shall be properly recorded, maintained, and reflected in the Training Completion and Record of Assessment (TCROA).
8. Only trainees who successfully pass the summative assessment shall be permitted to proceed to the practical exercise, practical assessment phase, where applicable.
9. Practical exercise and practical assessment results shall likewise be recorded and maintained in the TCROA and other official assessment records.

10. Measures shall be implemented to ensure the integrity, confidentiality, and security of the summative assessment process, including proper trainee identification and monitoring during assessment.
11. Technical support personnel shall be available to assist trainees and assessors with LMS or SDLS-related technical concerns encountered during the assessment process.

III. GRADING SYSTEM

The grading system is designed to evaluate trainee performance based on formative, summative, and practical assessments in accordance with the approved Assessment System Manual and MARINA guidelines.

1. Formative Assessment

- Formative assessments are conducted at the end of every lesson or module through the SDLS.
- These consist of quizzes, assignments, or activities designed to reinforce learning outcomes.
- Formative assessment shall constitute twenty percent (20%) of the final grade.
- Completion of all formative assessments is a prerequisite for eligibility to take the summative assessment.

2. Summative Assessment

2.1 Theoretical (Computer-Based Assessment)

- Conducted onsite using Multiple Choice Questions (MCQs) through the SDLS in the presence of an accredited assessor.
- Shall constitute seventy five percent (75%) of the final grade.
- Trainees who fail to meet the passing mark shall not proceed to the practical assessment.

Grading Scheme:

Result	Score
PASS	75% and above
FAILED	Below 75%

Computation:

$$\text{Percentage Score} = (\text{Raw Score} \div \text{Total Items}) \times 100$$

2.2 Practical Assessment

- Conducted using approved Practical Assessment Sheets with defined criteria.

- Evaluates the trainee's ability to perform required tasks and demonstrate competencies.
- May be conducted in classroom or simulator settings depending on course requirements.
- The Practical Assessment is computed as follows:

$$\text{Score} = \frac{\text{Total No. of Items Done} \times 100}{\text{Total No. of Items}}$$

Competency Rating:

Performance	Rating
All tasks performed satisfactorily	Competent (C)
One or more tasks not performed	Not Yet Competent (NYC)

3. Final Grade Computation

The final grade is computed as follows:

$$\text{Final Grade} = (\text{Formative Percentage} \times .20) + (\text{Summative Percentage} \times .80)$$

Where:

- Formative assessment is computed based on total score over total items.
- Summative theoretical assessment requires at least 75% to pass
- Practical assessment must be rated Competent (C)

4. Overall Result

- The trainee must pass BOTH summative components:
 - Theoretical: $\geq 75\%$
 - Practical: Competent (C)
- Failure in either component shall result in a final rating of **FAILED / NOT YET COMPETENT (NYC)**.

5. TCROA Entry

The final computed result and competency status shall be recorded in the Training Completion and Record of Assessment (TCROA).

RAW SCORE	PERCENTAGE EQUIVALENT					
	60 ITEMS	50 ITEMS	40 ITEMS	30 ITEMS	20 ITEMS	10 ITEMS
60	100					
59	98					
58	97					

57	95				
56	93				
55	92				
54	90				
53	88				
52	87				
51	85				
50	83	100			
49	82	98			
48	80	96			
47	78	94			
46	77	92			
45	75	90			
44	73	88			
43	72	86			
42	70	84			
41	68	82			
40	67	80	100		
39	65	78	97		
38	63	76	95		
37	62	74	92		
36	60	72	90		
35	58	70	87		
34	57	68	85		
33	55	66	82		
32	53	64	80		
31	52	62	77		
30	50	60	75	100	
29	48	58	72	97	

28	47	56	70	93		
27	45	54	67	90		
26	43	52	65	87		
25	42	50	62	83		
24	40	48	60	80		
23	38	46	57	77		
22	32	44	55	73		
21	35	42	52	70		
20	33	40	50	67	100	
19	32	38	47	63	95	
18	30	36	45	60	90	
17	28	34	42	57	85	
16	27	32	40	53	80	
15	25	30	37	50	75	
14	23	28	35	47	70	
13	22	26	32	43	65	
12	20	24	30	40	60	
11	18	22	27	37	55	
10	17	20	25	33	50	100
9	15	18	22	30	45	90
8	13	16	20	27	40	80
7	12	14	17	23	35	70
6	10	12	15	20	30	60
5	8	10	12	17	25	50
4	7	8	10	13	20	40
3	5	6	7	10	15	30
2	3	4	5	7	10	20
1	2	2	2	3	5	10

Training Completion and Records of Assessment (TCROA) Reports

Policies

- The certified results of assessments both passed and failed as part of the approved training program which are documented in the Training Completion and Records of Assessment (TCROA) Report, shall serve as the evidence that the seafarers have acquired the required standard of competence to undertake the tasks and responsibilities required under the STCW Convention.

- The Assessor and the Training Director shall certify in the Training Completion and Records of Assessment Report that the assessment have been conducted in accordance with the Assessment System Guidelines.

- The TCROA Report shall be submitted/uploaded to the MARINA MISMO System by the designated MISMO Officer within **three (3) days after the assessment**, for the application of the Certificate of Proficiency (COP).

Re-sit

Policy

- Trainees who fail any summative assessment component, whether written/computer-based or practical, shall be eligible for a re-sit. Only the component that was failed shall be subject to re-sit.
- A maximum of three (3) re-sit attempts shall be permitted. Trainees who fail after three (3) attempts shall be required to undergo retraining for the affected function or module.
- Trainees who successfully pass the re-sit shall be recorded as Passed/Competent, as applicable.

Procedure

1. The re-sit shall be scheduled based on the availability of the Assessor and the required facilities.
2. A same-day re-sit may be permitted, subject to availability.
3. All re-sits must be completed within one (1) year from the date of initial failure.
4. The re-sit shall be conducted using the Re-Sit Form (NAGA-TRNGD-QPF-04-00-24)
5. The assessment may be administered by the same or another qualified Assessor.
6. All procedures shall comply with the approved Assessment System Guidelines.
7. Each re-sit attempt shall be properly documented and recorded in accordance with institutional record-keeping requirements.

Appeal for Un-satisfactory Assessment Results

Policy

- Candidates who are not satisfied with the results of a written or practical assessment, or who have concerns regarding the integrity of the assessment process, have the right to request a review of the assessment.
- Appeals shall only be considered if submitted immediately upon receipt or viewing of the assessment result. Appeals filed after the day of result issuance shall not be accepted.
- All appeals shall observe strict confidentiality, ensuring that assessment materials, processes, and related information are protected throughout the review process.
- A review report signed by the candidate shall signify acknowledgment of the findings and waiver of further claims or appeals regarding the assessment.

Procedure

1. The trainee files an appeal using the Appeal Form (NAGA-TRNGD-QPF-15-00-26) immediately upon receipt or viewing of the assessment result by completing the prescribed Appeal Form and providing all required details, including the reason for appeal and any supporting evidence.
2. The completed Appeal Form is submitted to the Registrar, who receives, records, and logs the appeal, indicating the date of receipt and ensuring completeness of the document.
3. The Registrar forwards the appeal to the concerned Assessor for review and comment on the conduct of the assessment and the basis of the result.
4. The Assessor reviews the appeal and provides a written statement explaining the assessment process, methodology used, and justification of the result, then signs and submits it back to the Registrar or directly to the Training Director.
5. The Registrar consolidates all documents and forwards the appeal, together with the Assessor's comments and any supporting evidence, to the Training Director for evaluation.
6. The Training Director reviews all submitted documents, ensuring that the assessment was conducted in accordance with approved procedures and that the appeal is evaluated objectively and fairly.
7. If necessary, the TD may request additional information, conduct further validation, or initiate an independent review before making a decision.
8. The Training Director renders a final decision, which may include upholding the original result, denying the appeal, or approving a reassessment.
9. The decision, including the justification, is documented in the Appeal Form and signed by the Training Director.
10. The Registrar communicates the final decision to the trainee and facilitates acknowledgment of receipt by securing the trainee's signature.
11. The trainee signs the acknowledgment section to confirm understanding and acceptance of the final decision.

12. All documents related to the appeal are filed and maintained by the Registrar for record-keeping, traceability, and audit purposes.

IV. CONDUCT OF ASSESSMENT

A. Provision for Assessment and Assessor

The role of an assessor is to objectively assess and judge a trainee's evidence against a set of standards. To do this effectively, an assessor must have a sound knowledge of, and be skilled in, the relevant industry area, and meet the below assessor requirements.

Training and assessment may only be delivered by persons who have:

1. vocational competencies at least to the level being delivered and assessed;
2. current industry skills directly relevant to the training and assessment being provided; and
3. current knowledge and skills in vocational training and learning that informs their training and assessment.

Assessors must also hold one of the following:

- Certificate Of Accreditation issued by MARINA
- Certificate Of Competency
- IMO Model Course 6.09
- IMO Model Course 3.12 (For Assessors)
- Training Certificate on Attendance to training on online distance learning
- Certificate of Attendance on Familiarization on the use of LMS (Seatech Distance Learning System)

It is crucial that assessors always understand and practice fair, objective, unbiased and flexible assessment processes. SEATECH Assessors are encouraged to contribute to the assessment strategy development and conduct the assessment process cognizant to existing best practice and research in the relevant field.

B. Provision for Trainees Prior to Assessment

1. Trainees shall present a valid medical certificate issued by the training center confirming fitness for assessment.
2. The LMS Administrator or authorized personnel shall verify through the Seatech Distance Learning System (SDLS) that trainees have completed:
 - Required LMS/SDLS modules;
 - Formative assessments;
 - Attendance requirements;
 - Documentary requirements; and
 - Financial obligations.
3. Only trainees who have successfully completed all prerequisites shall be endorsed for summative and practical assessment.

4. Prior to assessment, the assessor shall conduct a comprehensive briefing and orientation for all trainees.
5. The briefing shall include:
 - Assessment rules and regulations;
 - House rules;
 - Safety precautions;
 - Emergency procedures;
 - Assessment objectives and performance criteria;
 - Prohibited acts and disciplinary measures.
6. Trainees shall be given the opportunity to ask questions and clarify assessment instructions prior to commencement.

Conduct of Summative Assessment

1. Summative assessment shall be conducted onsite through computer-based Multiple-Choice Questions (MCQs) using the SDLS.
2. Identity verification of trainees shall be conducted prior to the start of the assessment.
3. Assessments shall be conducted in a controlled, secure, and monitored environment to ensure confidentiality, integrity, validity, reliability, fairness, and consistency of results.
4. Authorized and accredited assessors shall supervise the conduct of the assessment.
5. Trainees shall strictly comply with all assessment procedures and instructions.
6. Any form of cheating, dishonesty, misconduct, or violation of assessment rules shall result in disqualification and corresponding disciplinary action.
7. Assessment results shall be evaluated, validated, and recorded in the Training Completion and Record of Assessment (TCROA).

Conduct of Practical Assessment

1. Only trainees who have successfully passed the summative assessment shall be allowed to proceed to the practical assessment phase, where applicable.
2. Practical assessments shall be conducted onsite using approved practical assessment sheets, standardized assessment checklists, and established competency criteria.
3. Assessment facilities, equipment, tools, and materials shall be inspected and prepared prior to the conduct of assessment to ensure safety and compliance with training standards.
4. Trainees shall demonstrate the required competencies, skills, and practical procedures under the supervision of authorized assessors.
5. Assessors shall objectively observe, evaluate, and document trainee performance based on approved assessment criteria.
6. Practical assessments shall be conducted in a safe and controlled environment in accordance with established safety and risk management procedures.
7. Any unsafe act, misconduct, or violation of practical assessment procedures shall result in disqualification from the assessment.

8. Practical assessment results shall be validated and recorded in the TCROA.
9. Trainees who fail any assessment component may apply for reassessment in accordance with the approved re-sit policy of the training center and MARINA guidelines.
10. A maximum of three (3) assessment attempts shall be allowed for each trainee.
11. Failure to pass after the maximum allowable attempts shall require retraining or re-enrollment in the course.
12. All assessment materials, trainee information, assessment records, and results shall be treated as strictly confidential.
13. Access to assessment documents and records shall be restricted to authorized personnel only.
14. Assessment records and related documents shall be properly secured, filed, maintained, and protected from unauthorized access, alteration, or disclosure.

V. PROVISION FOR INVIGILATION

This policy shall be strictly followed during all SOS-based summative assessments conducted onsite.

1. One (1) invigilator may supervise a maximum of 24 trainees.
2. The invigilator must ensure trainees are properly logged into the SDLS with their registered accounts and valid credentials before the start of the assessment.
3. Trainees shall be seated with a safe distance from each other to prevent unauthorized collaboration.
4. Trainees shall not access any other device during the assessment.
5. A stable internet connection and functional device must be maintained throughout the assessment.
6. Trainees shall be seated and ready at least five (5) minutes before the start of the assessment.
7. The invigilator shall provide instructions regarding assessment rules, time allocation, and SDLS navigation prior to commencement.
8. Once the assessment has started, trainees shall not communicate with others or attempt to access unauthorized materials.
9. Invigilators must maintain continuous visual supervision of all trainees during the assessment.
10. Trainees arriving late by less than 30 minutes may be admitted with minimal disruption. Those arriving more than 30 minutes late shall not be permitted to take the assessment and shall be marked FAILED.
11. Any suspected malpractice must be immediately reported to the Assessor and Management. The invigilator shall warn the trainee and take appropriate action.
12. The invigilator shall monitor the progress of the assessment in real-time through the SDLS and provide assistance if technical issues arise.

13. At the end of the assessment, the SDLS shall automatically record and submit the trainee's results. The invigilator shall ensure all results are properly saved and validated.
14. In case of emergency (e.g., power outage or system failure), the invigilator shall stop the assessment, record the incident, and coordinate with the Assessor to reschedule or continue the assessment as appropriate.

VI. SECURITY TO PREVENT CHEATING

1. Trainees must log in using their registered SDLS accounts with valid credentials. Sharing accounts or passwords is strictly prohibited.
2. Access to the assessment is restricted to the scheduled time as per the approved Instructional Guide (IG) and Timetable.
3. Time limits are set.
4. The examination shall be conducted onsite at the SEATECH Practical Site under the supervision of an invigilator. Trainees are strictly required to take the examination within the designated assessment area only.
5. Invigilators maintain continuous visual supervision of trainees and may review SDLS activity logs if necessary.
6. The Assessor/ Invigilator may confiscate the item, note the time & candidate, and end the exam if required.
7. Detected or suspected cheating is immediately reported to the Assessor and Management. Confirmed violations may result in a FAILED assessment and possible disciplinary action.
8. Assessment attempts, system logs, and monitoring records are retained.
9. Upon completion, the summative assessment is automatically locked to prevent modification, re-entry, or tampering with submitted responses.
10. In case of emergencies or technical issues, invigilators shall record the incident and coordinate with the Assessor for resolution.

VII. VALIDATION OF RESULTS

SEATECH shall implement secured validation procedures within its SDLS-based assessment system to ensure that all assessment results are accurately recorded, validated, securely stored, and made readily available to the MARINA for regulatory, audit and compliance purposes as required under MARINA Circular No. SC-2021-10.

- All trainee assessment data shall be automatically captured by the SDLS, including:
 - Trainee identification and credentials
 - Assessment start and end times

- Individual responses and scores
 - System logs such as browser activity, navigation events, flagged incidents
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- The SDLS must time-stamp and securely store all assessment data in an immutable log to prevent tampering or unauthorized modification.
 - Data shall be securely stored, protected against tampering, and time-stamped for audit purposes.
 - Results are cross-checked against SDLS activity logs to confirm integrity and accuracy.
 - Discrepancies or anomalies are flagged and reviewed by the Assessor.
 - Validated assessment results shall be made available to MARINA for certification, audit, or regulatory purposes.
 - Records shall be retained for one (1) year.

VIII. GEO-FENCING OR GEO MAPPING

SEATECH ensures that assessments are taken within authorized locations and maintain the integrity and validity of formative and summative assessments in compliance with MARINA requirements.

The SDLS implements **Geo-fencing and Geo-mapping** using **MaxMind's GeoLite2** database to verify trainee locations through IP addresses. Access to assessments is restricted to approved geographic areas. Any attempt to access an assessment from an unauthorized location will be denied and logged.

- When a trainee logs in to take an assessment, the SDLS checks the IP address against the GeoLite2 database.
- *Geo-fencing*: The SDLS confirms the IP falls within the approved geographic boundaries.
- *Geo-mapping*: The SDLS maps the IP address to a city or location to create an audit trail and support compliance monitoring.
- The SDLS records:
 - IP address used for access
 - Mapped city/location
 - Date and time of login and assessment activity
- Technical issues preventing accurate location verification must be reported to the SDLS Administrator.
- Exams can only be taken from the onsite.
- Geo-location and access logs are retained as part of the assessment records.