

## ภาคผนวก

### มาตรฐานการทดสอบผู้ประจำหน้าที่นายช่างภาคพื้นดิน (Aircraft Maintenance Licence Examination and Practical Assessment)

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#### 1. BASIC PRACTICAL ASSESSMENT

##### 1.1 Introduction

The Basic Practical Assessment process is designed to evaluate the competence of candidates seeking Basic Aircraft Maintenance Engineer (AME) licenses. This assessment focuses on evaluating the candidate's ability to perform maintenance tasks safely and effectively, ensuring they can meet the standards required for the airworthiness of aircraft.

The assessment consists of the following components:

##### 1) Oral Examination:

This component involves an interactive questioning session to assess the candidate's theoretical knowledge and understanding of maintenance procedures, aircraft systems, troubleshooting methods, and safety protocols. The oral examination is intended to test the candidate's ability to discuss and explain the key concepts they have learned during training. It also ensures that the candidate can articulate their decision-making process when faced with maintenance tasks, demonstrating the application of theoretical knowledge in practical situations.

##### 2) Practical Assessment:

This component evaluates the candidate's practical ability to perform maintenance tasks in real-world conditions or controlled settings that simulate actual maintenance environments. The practical assessment ensures that the candidate can correctly use tools and equipment, apply safety procedures, and complete tasks according to the required maintenance standards. Candidates are assessed on their hands-on competence in performing routine maintenance tasks, including those tasks aligned with the basic license category.

#### 1.2 Standards for Basic Practical Assessment

##### 1) Approval and Organization of Practical Assessment

The practical assessment for the modules required in TCAR Part 66 must be approved by CAAT. CAAT authorizes the MTO to organize and conduct the practical assessments for candidates. The MTO is responsible for ensuring that the assessments are conducted according to CAAT's regulatory requirements.

##### 2) Category and Instruction

A candidate for the AME practical assessment must have received training corresponding to the same category of license to be tested.

##### 3) Competency and Assessment Plan

General competency items relevant to the AML category must be assessed as part of the assessment plan. The assessment should focus on ensuring the candidate demonstrates the required competencies, based on the applicable AML category (e.g., AME Category A, B1, B2).

**4) Task Selection and Duration**

The tasks selected for the practical assessment must align with the group of tasks outlined in Table (a) and (b). The duration of the assessment should be proportionate to the tasks being evaluated. The assessment is based on the candidate’s performance while carrying out these tasks.

**5) Competency Demonstration**

By completing the practical assessment, the candidate must demonstrate the necessary competencies required for the privileges sought in the respective AML category. This includes practical skills, safety procedures, and correct use of tools and equipment.

**6) Tools, Equipment, and Environment**

The tools, equipment, and location used for the practical assessment should meet the required standards. They should simulate real-world maintenance conditions, providing a suitable environment for the assessment.

**7) Assessment Conducted by Authorized Assessors**

Only assessors who are authorized by CAAT and designated by the MTO may conduct the practical assessment. The MTO must ensure that all assessors meet the required qualifications and have sufficient experience to evaluate the candidates’ performance effectively.

**8) Pass/Fail Criteria**

a) The practical assessment will be divided into tasks or subjects based on the tasks listed in Table (a) and (b), appropriate to the AML category.

b) A failure in any item of a subject will result in the candidate failing the entire section. If only one subject is failed, the candidate will only need to repeat that subject. However, if more than one section is failed, the candidate will fail the entire assessment.

c) If the assessment needs to be repeated (as per point 8.2), failure in any subject, including previously passed subjects, will result in a failure of the entire test.

d) If the candidate fails to pass all subjects after three attempts, further training will be required. This training must be determined and evaluated by a qualified practical assessor.

**1.3 Task Types and Environment Sites**

The assessment prompt should include details about the types of tasks and the candidate's environmental setup. The provided tables offer examples of the codes and definitions that the MTO can utilise when creating an assessment plan.

Task Types

CODE	Definition
LOC	Location of System Component
MEL	Minimum Equipment List
FOT	Functional Check/Operational Test
SGH	Servicing/Ground handling
R/I	Removal and Installation
FIM	Fault isolation Manual
LAB	Laboratory
DEM	Demonstration
D/R	Disassembly/Reassembly
T/E	Tools/Equipment
APP	Application
TS	Troubleshooting

INS	Inspection
DOC	Documentation

Environment Sites

CODE	Definition
A/C	Aircraft
WS	Workshop
LB	Laboratory

**1.4 Content of Practical Assessment**

**1) AME CAT A**

At least 5 maintenance tasks shall be selected in Table (a) and the assessment shall be based on the observation of the candidate's performance while carrying out the tasks.

Table (a)

Recommended duration of the assessment: 2 days or 12 hours

No.	AMM or SRM Task
(1)	Replacement of wheel assemblies
(2)	Replacement of wheel brake units
(3)	Replacement of emergency equipment
(4)	Replacement of ovens, boilers and beverage makers
(5)	Replacement of internal and external lights, filaments and flash tubes
(6)	Replacement of windscreen wiper blades
(7)	Replacement of passenger and cabin crew seats, seat belts and harnesses
(8)	Closing of cowlings and refitment of quick access inspection panels
(9)	Replacement of toilet system components but excluding gate valves
(10)	Simple repairs and replacement of internal compartment doors and placards but excluding doors that form part of a pressure structure
(11)	Simple repairs and replacement of overhead storage compartment doors and cabin furnishing items
(12)	Replacement of static wicks
(13)	Replacement of aircraft main and APU batteries
(14)	Replacement of in-flight entertainment system components other than public address
(15)	Routine lubrication and replenishment of all system fluids and gases
(16)	Deactivation only of subsystems and aircraft components as permitted by the operator's minimum equipment list where such deactivation is agreed by the competent authority as a simple task
(17)	Inspection for and removal of de-icing/anti-icing fluid residues, including removal/closure of panels, cowls or covers or the use of special tools

2) AME CAT 'B1', 'B2' and 'B3

Recommended duration of the assessment

B1.1 and B1.3:	5 assessment days or 30 hours on selected maintenance tasks for the applicable subjects in Table (b)
B1.2, B1.4, B2L and B3:	3 assessment days or 18 hours on selected maintenance tasks for the applicable subjects in Table (b)
B2:	4 assessment days (24 hours) on selected maintenance tasks for the applicable subjects in Table (b) plus 1 assessment day on at least 2 maintenance tasks selected from Table (a)
'1 Assessment Day' means at least 6 hours, calculated without breaks. '1 hour'+ means 60 minutes.	

Table (b)

Subject	B1 B3	B2 B2L
1. Application of Fits and Clearances		
1.1 Ability to drill required sizes for bolt holes and check the appropriate classes of fits.	X	X
1.2 Application of limits for bow, twist and wear, standard methods for checking shafts, bearings.	X	X
2. Electrical Wiring Interconnection System (EWIS)		
2.1 Inspection of aircraft cables looming for defects, splicing exercises, measure continuity, insulation and bonding practices and techniques and testing; use of crimp tools, testing of crimp joints.	X	X
2.2 Connector pin removal and insertion; Coaxial cables: testing and installation precautions.		
2.3 Identification of wire types, their inspection criteria and damage tolerance.		
2.4 Wiring protection techniques: cable looming and loom support, cable clamps, protective sleeving techniques including heat shrink wrapping, shielding; Soldering of electrical wires.		
2.5 EWIS installations, inspection, repair, maintenance and cleanliness standards.		
3. Riveting and sheet metal work; composite		
3.1 Riveted joints, rivet spacing and pitch; tools used for riveting and dimpling.	X	—
3.2 Inspection of riveted joints.		
3.3 Marking out and calculation of bend allowance.		
3.4 Sheet metal working, including bending and forming;		
3.5 Inspection of sheet metal work.		
3.6 Composite: application of bonding practices, environmental conditions and inspection methods.		
4. Pipes and Hoses		
4.1 Ability to bend and belling/flaring aircraft pipes. Inspection and testing of aircraft pipes and hoses. Installation and clamping of pipes.	X	—
5. Springs		
5.1 Inspection and testing of springs.	X	—
6. Bearings		
6.1 Inspection and cleaning of bearings, and lubrication requirements of bearings.	X	—
7. Transmissions		
7.1 Inspection of gears, backlash; inspection of belts and pulleys, chains and sprockets; inspection of screw jacks, lever devices, and push-pull rod systems.	X	—
8. Control cables		
8.1 Ability to inspect swage of end fittings; inspection and installation and testing of control cables.	X	—
8.2 Inspection of Bowden cables and aircraft flexible control systems.	X	—

Subject	B1 B3	B2 B2L
9. Welding, Brazing, Soldering and Bonding		
9.1 Visual inspection of welded and brazed joints.	X	
9.2 Visual inspection of soldered joints.	X	X
10. Aircraft Weight and Balance		
10.1 Prepare aircraft for weighing.	X	X
11. General Disassembly, Inspection, Repair and Assembly Techniques		
11.1 Ability to carry out an inspection: daily/weekly and individual MPD/Chapter 4 & 5 tasks.	X	X
11.2 Identify types of defects and carry out inspection/testing techniques according to AMM, SRM, SB, ADs.		X
11.3 Ability to carry out corrosion assessment and removal, and re-protection.		X
11.4 Ability to use general repair methods and methods from the structural repair manual.		-
11.5 Ability to use colour contrast penetrant inspection techniques.		-
11.6 Apply disassembly and reassembly techniques including use of lock wiring/torquing techniques.		X
11.7 Ability to apply troubleshooting/fault-finding techniques.		X
11.8 Carry out inspections following lightning strikes and HIRF penetration abnormal events such as heavy landings and flight through turbulence.		X
12. Servicing of Aircraft Systems		
12.1 Ability to check tyre pressure and correct it if required, replenish and fill up: hydraulic systems, engine oil, oxygen servicing.	X	X

## 2. TYPE RATING EXAMINATION PRACTICAL ASSESSMENT STANDARDS

### 2.1 Introduction

The Type Training Examination and Practical Assessment process is designed to evaluate the competence of candidates seeking Type Rating endorsements for Aircraft Maintenance Engineers (AMEs). The examination covers a combination of theoretical knowledge, practical skills, and oral assessments that are essential for ensuring the candidate's ability to maintain and troubleshoot aircraft systems safely and effectively.

The examination consists of three main components :

- 1) Theoretical Examination: This assesses the candidate's knowledge of the aircraft systems, maintenance procedures, safety protocols, and relevant regulations. It ensures that the candidate can demonstrate a sound understanding of the principles behind the maintenance tasks they will perform.
- 2) Practical Assessment: This evaluates the candidate's ability to perform specific maintenance tasks in real-world conditions. The practical assessment ensures that the candidate can correctly use tools and equipment, apply safety procedures, and complete tasks to the standards required for aircraft maintenance.
- 3) Oral Examination: This component involves interactive questioning to assess the candidate's ability to discuss technical concepts and troubleshooting methods clearly and confidently.

These assessments are structured to align with the approved training syllabus and ensure that the candidate meets all regulatory requirements for a Type Rating endorsement.

### 2.2 Standards for Written Examination

The written examination is designed to evaluate the candidate's theoretical knowledge and understanding of the aircraft and its systems. The written exam should meet the following standards:

- 1) Examination Format: The written examination should consist of multiple-choice questions (MCQs) and essay-type questions that are relevant to the aircraft type being assessed. The questions should test both theoretical knowledge and the candidate's ability to apply that knowledge.
- 2) Question Quality: All questions must be clear, accurate, and directly related to the aircraft's systems and maintenance tasks. For multiple-choice questions, the incorrect alternatives should be plausible enough to challenge the candidate's understanding of the subject.
- 3) Number of Questions: The number of questions in the examination must be proportional to the amount of training delivered. The general guideline is one question per hour of instruction. The examination should provide an adequate scope to assess the learning objectives for each module or topic.
- 4) Duration: The exam duration should be aligned with the number of questions and complexity of the subject matter, with an average time of 90 seconds per multiple-choice question. Essay-type questions may require more time, depending on the complexity of the topic.

Pass Mark: The minimum pass mark for the written examination is set at 75%. If the examination is split into sections (e.g., theory and practical), each section must be passed with at least 75%

### 2.3 Practical Training and Assessment Requirements

The Type Rating Practical Assessment must be conducted in accordance with the standards outlined in Appendix III of TCAR PEL Part 66. This ensures that trainees are sufficiently prepared to perform maintenance tasks on specific aircraft types. The practical training and assessment must fully comply with these established standards to verify that candidates possess the necessary skills and competencies for their role in aircraft maintenance.

- 1) Training Organization and Approval
  - o Practical assessments must be conducted by CAAT- approved Part 147 Maintenance Training Organizations (MTOs). These MTOs must be authorized by CAAT to conduct the practical assessment. The organization conducting the assessment must ensure that it meets the necessary standards in terms of facilities, equipment, tools, and qualified personnel.
- 2) Task Selection and Scope
  - o The tasks selected for the practical assessment should cover a representative cross-section of maintenance activities relevant to the aircraft type. The tasks must include routine maintenance, component removal and installation (R/I), system troubleshooting, functional checks, and on-wing maintenance tasks.
- 3) Compliance with Standards
  - o The Type Rating Assessment Standards should comply with the standards outlined in this section.

### 2.4 Practical Element of the Type Rating Practical Assessment

The practical assessment is based on tasks selected from the training syllabus and aims to evaluate the candidate's ability to perform maintenance tasks in a real-world environment. As required by Appendix III to TCAR PEL Part 66, practical assessments should follow these standards:

- 1) Practical Assessment Conducted by Authorized MTOs
  - o The practical assessment must be conducted by a CAAT-approved Part 147 MTO that is authorized to assess the candidate's skills. These MTOs must have the facilities, equipment, and qualified assessors to ensure that the assessment is conducted in a controlled and professional environment.
- 2) Competency Evaluation
  - o The assessment evaluates the knowledge and practical skills of the trainee. The practical tasks should reflect those typically encountered during aircraft maintenance operations, ensuring that trainees are evaluated on their ability to perform tasks safely and competently.

### 2.5 Content of Type Rating Practical Assessment

The Type Rating Practical Assessment content must include tasks that test a trainee's ability to perform essential aircraft maintenance tasks. These tasks are based on the training syllabus and should be aligned with the maintenance requirements of the specific aircraft type.

#### A. Routine Maintenance Tasks

- Pre-flight and Post-flight Inspections:  
Trainees will be assessed on their ability to perform routine checks on systems such as landing gear, engines, and hydraulic systems before and after flight.

- Servicing and Scheduled Maintenance:  
These tasks include activities such as fuel system checks, oil changes, and hydraulic fluid replenishment.

## **B. Troubleshooting and Diagnostics**

- Fault Diagnosis:  
Tasks in this section will assess the trainee's ability to identify and diagnose faults in electrical, mechanical, and avionic systems. Troubleshooting methods should be demonstrated following standard operational procedures.
- System Malfunction Simulation:  
The trainee will be required to resolve simulated faults in critical systems (e.g., engine failure, electrical malfunctions) under controlled conditions.

### **2.5.1 Component Removal and Installation (R/I)**

- Component Replacement:  
The trainee will perform tasks involving the removal and installation of components such as engines, avionics units, and landing gear.
- Rigging and Adjustments:  
Tasks in this section will evaluate the trainee's ability to rig and adjust control systems, including flight control systems and landing gear mechanisms.

### **2.5.2 Functional and Operational Testing**

- System Testing:  
The trainee will perform functional checks and operational tests to verify the performance of systems such as hydraulics, electrical systems, and powerplants after maintenance tasks are performed.
- Engine Runs and Functional Checks:  
For applicable aircraft, the trainee will perform an engine run or other system checks to ensure correct system operation after maintenance.

### **2.5.3 Use of Specialized Tools and Equipment**

- Tooling and Equipment Usage:  
The trainee must demonstrate proficiency in using specialized tools such as torque wrenches, hydraulic jacks, and diagnostic equipment.
- Diagnostic Testing:  
Tasks must include using diagnostic tools for electrical and hydraulic systems, ensuring that systems are within operational specifications.

### **2.5.4 On-Wing Maintenance**

- On-Wing System Maintenance:  
The trainee must demonstrate their ability to perform on-wing maintenance tasks, such as engine removal and replacement or electrical system repairs, without removing the aircraft from service.

- In-Situ Diagnostics:  
The trainee will be evaluated on their ability to perform diagnostics and repairs without component removal, a key skill for on-wing maintenance.

### 2.5.5 Compliance with Maintenance Procedures

- Documentation and Record Keeping:  
Trainees must correctly document all maintenance actions, including discrepancies, corrective actions, and parts replaced, in the maintenance logbooks.
- Regulatory Compliance:  
The assessment ensures that trainees adhere to airworthiness directives (ADs), service bulletins, and other regulatory standards to maintain the aircraft's airworthiness.

## 3 QUALIFICATION AND TRAINING

### 3.1 Introduction

The qualification and training of practical assessors are critical to ensuring that aircraft maintenance personnel are properly evaluated and meet the standards required for certification. This chapter outlines the qualifications, training requirements, and recurrent training intervals for both Basic License Assessors and Type Rating Assessors. These assessors must possess the necessary qualifications, knowledge, and skills to conduct practical assessments effectively, ensuring consistent and high-quality maintenance training.

### 3.2 Qualifications for Practical Assessors

Practical assessors must meet the following qualification requirements before they are eligible to conduct practical assessments. The requirements differ for Basic License Assessors and Type Rating Assessors, and these differences are outlined below.

#### 3.2.1 Basic License Assessors

Practical assessors for Basic License assessments must meet the following qualifications:

- 1) Valid AME License or Equivalent Experience
  - The assessor must have relevant maintenance experience in the aircraft category they are assessing, even if they do not hold an AME license.
- 2) Experience in Aircraft Maintenance Tasks
  - The assessor must have practical experience in the aircraft systems relevant to the Basic License. This includes experience with basic maintenance tasks such as:
    - Routine inspections
    - Minor repairs and servicing
    - Functional checks on systems such as hydraulics, landing gear, and electrical systems.
- 3) Regulatory Knowledge
  - The assessor must be familiar with CAAT regulations relevant to the Basic License and understand how to assess basic maintenance tasks according to TCAR Part 66 and ICAO standards.

#### 3.2.2 Type Rating Assessors

Practical assessors for Type Rating assessments require additional qualifications due to the complexity and specialized nature of the tasks involved. The criteria for Type Rating Assessors are as follows:

- 1) Type-Specific Qualifications
  - The assessor must hold type-specific qualifications for the aircraft being assessed, including formal training and certification specific to the aircraft type.
- 2) Experience with Advanced Maintenance Tasks
  - The assessor must have hands-on experience with more advanced tasks for the aircraft type, such as:
    - Engine runs
    - System troubleshooting
    - Component removals/replacements
    - Functional testing
- 3) Regulatory Knowledge
  - The assessor must have an understanding of CAAT regulations and ICAO standards as they apply to Type Rating assessments, including airworthiness standards, service bulletins, and maintenance procedures specific to the aircraft type.
- 4) Competency in Advanced Systems
  - The assessor must have technical competence to assess systems that are more complex and specialized, such as:
    - Hydraulics and flight controls
    - Fuel systems and powerplant
    - Avionics systems

### **3.3 Training Requirements for Practical Assessors**

In addition to the qualifications outlined in Section 4.2, practical assessors must undergo specific training courses to ensure they are properly prepared to evaluate candidates. These courses cover both general assessment skills and technical skills tailored to the requirements of Basic License and Type Rating assessments.

#### **3.3.1 Basic License Assessors Training**

- 1) CAAT Aviation Laws (Specific to Maintenance Activities)
  - To ensure assessors are familiar with CAAT aviation laws relevant to maintenance activities and practical assessments.
- 2) Roles and Responsibilities of Practical Assessors
  - To ensure assessors understand their roles and responsibilities in the practical assessment process, including the rules and procedures they must follow.
- 3) Basic Maintenance Competency-Based Assessment
  - To provide assessors with the knowledge and skills to evaluate basic maintenance tasks, including routine inspections, component replacements, and servicing.
- 4) Safety Management System (SMS)
  - To ensure assessors understand and apply safety protocols and risk management during practical assessments.
- 5) Human Factors in Maintenance Activities
  - To train assessors to recognize the impact of human factors (e.g., stress, fatigue, and decision-making) on practical maintenance tasks.

#### **3.3.2 Type Rating Assessors Training**

- 1) CAAT Aviation Laws (Type Rating-Specific)
  - To provide assessors with detailed knowledge of CAAT regulations specific to Type Rating assessments.
- 2) Roles and Responsibilities of Type Rating Assessors

- To ensure assessors understand their roles in evaluating advanced maintenance tasks such as engine runs, system checks, and troubleshooting.
- 3) Competency-Based Assessment for Advanced Maintenance Tasks
  - To train assessors on how to assess competencies for more complex tasks, such as system checks, component replacements, and diagnostic testing.
- 4) Safety Management System (SMS) for Type Rating Tasks
  - To ensure assessors are proficient in applying Safety Management practices during Type Rating assessments.
- 5) Assessment Standardization
  - To standardize assessment processes, ensuring fairness, consistency, and objectivity in evaluating both Basic License and Type Rating candidates.
- 6) Human Factors in Advanced Aircraft Maintenance
  - To train assessors to recognize the influence of human factors on Type Rating maintenance tasks, including decision fatigue and stress management.

### **3.3.3 Recurrent Training for Practical Assessors**

To ensure that practical assessors remain up-to-date with the latest regulations, procedures, and technological advancements in aircraft maintenance, recurrent training is required at regular intervals.

- 1) Recurrent Training Interval
  - Practical assessors must undergo recurrent training every 24 months to maintain their qualifications for conducting practical assessments. This interval applies to both Basic License Assessors and Type Rating Assessors.
- 2) Recurrent Training Duration
  - One full day (6 hours) of recurrent training per year is required. This training should focus on updated regulations, new safety protocols, assessment standardization, and competency-based assessment techniques.
- 3) Recurrent Training Content
  - Updates on CAAT regulations and ICAO guidelines.
  - Refresher courses on safety management, human factors, and assessment standardization.
  - Hands-on practice for Type Rating Assessors with advanced systems and new technologies related to the aircraft types they assess

### **3.4 Competencies of the Assessor**

In order to ensure that practical assessments are conducted effectively, consistently, and in compliance with CAAT regulations, it is essential that practical assessors possess the required competencies. These competencies are drawn from the ICAO Competency Framework and adapted to the specific role of an assessor. While many competencies are common to both practical assessors and AMEs (Aircraft Maintenance Engineers), there are additional competencies unique to the role of the assessor. These competencies ensure that the assessor can objectively evaluate the skills and knowledge of candidates during the practical assessment process.

Table: Competencies of the Assessor

Competency Area	Description	Example
Regulatory Understanding	Knowledge of CAAT regulations, ICAO standards, and Part 66 regulations to ensure compliance.	Ensuring the candidate's tasks, like component replacement, are performed in accordance with CAAT standards.
Work Management	Ability to manage resources (time, tools, personnel) during practical assessments.	Ensuring the right tools and resources are available for tasks such as engine removals or system checks.
Situational Awareness	Ability to recognize risks and manage safety during assessments.	Observing a hydraulic system test, identifying potential hazards like tool malfunction or safety hazards.
Technical Expertise	Proficiency in assessing aircraft systems and complex maintenance tasks.	Assessing a candidate's ability to troubleshoot complex aircraft systems, such as an engine failure scenario.
Impartiality & Ethical Conduct	Ensuring fairness and neutrality in the assessment process.	Evaluating two candidates performing routine inspections under the same conditions and judging them on identical standards.
Documentation & Reporting	Ability to accurately document results, feedback, and corrective actions.	Completing an assessment report on a candidate performing component replacement, including feedback and outcome.
Communication Skills	Clear communication and feedback to candidates.	Providing constructive feedback after evaluating a candidate's performance on routine maintenance tasks.
Risk Management	Ability to recognize and manage risks during practical assessments.	Ensuring safety protocols are followed during an engine calibration and handling risk factors associated with the task.

Detailed explanations and examples:

### 3.4.1 Regulatory Understanding

Competency Description:

The assessor must have a thorough understanding of regulations related to aircraft maintenance, specifically CAAT regulations and Part 66 requirements. This knowledge is essential for ensuring that practical assessments are conducted in accordance with the prescribed legal and regulatory framework.

Key Responsibilities:

- Understand and apply CAAT regulations and ICAO standards during practical assessments.
- Ensure that the assessment process complies with regulatory standards, and that the candidate's performance meets the requirements outlined in the MTOE (Maintenance Training Organisation Exposition).

Example:

An assessor must verify that the candidate's work complies with CAAT Part 66, ensuring that tasks such as the replacement of critical components are done according to safety protocols. For instance, when assessing a candidate's ability to replace an aircraft wheel, the assessor must ensure that the process follows the CAAT standards for wheel removal and installation, including safety checks and verification of tool usage.

### **3.4.2 Work Management**

Competency Description:

The assessor must manage resources effectively during practical assessments. This includes organizing the assessment process, ensuring that the right tools, materials, and personnel are available, and that the assessment follows an efficient workflow.

Key Responsibilities:

- Organize and prioritize the assessment tasks to ensure smooth and timely evaluations.
- Ensure that time management is adhered to during the practical assessment process.

Example:

An assessor conducting an assessment of a candidate performing a functional check on a hydraulic system must ensure that the tools are readily available, the systems to be checked are correctly set up, and the candidate has a clear understanding of the assessment procedure. The assessor must also ensure that the candidate is given adequate time to complete the task without unnecessary delays while ensuring the workflow is maintained.

### **3.4.3 Situational Awareness**

Competency Description:

The assessor must have the ability to assess environmental factors during the assessment and recognize potential risks that may arise. Situational awareness involves the ability to identify issues early, anticipate challenges, and mitigate risks during practical assessments.

Key Responsibilities:

- Monitor the environment for potential safety hazards.
- Recognize when conditions might affect the candidate's ability to perform the task safely or efficiently.

Example:

While assessing a candidate performing an engine run-up, the assessor must be vigilant about potential hazards such as loose equipment, fuel spills, or overheating components. The assessor must ensure that all safety protocols are followed, and that the assessment is conducted in a safe environment to prevent

accidents. If the weather is unsuitable for engine testing, the assessor must call for a delay until conditions improve.

#### **3.4.4 Technical Expertise**

Competency Description:

The assessor must have strong technical knowledge in the area they are assessing, particularly in aircraft systems, components, and maintenance tasks. This competency ensures that the assessor can effectively evaluate the candidate's technical competence in performing maintenance tasks correctly and to the required standards.

Key Responsibilities:

- Evaluate the technical proficiency of the candidate in performing complex maintenance tasks.
- Assess the candidate's ability to apply theoretical knowledge to practical situations.

Example:

In the case of a Type Rating assessment, where the candidate is required to assess the hydraulic system of a complex aircraft, the assessor must have deep knowledge of the aircraft's hydraulic system. The assessor evaluates the candidate's ability to diagnose a hydraulic system failure and perform the appropriate corrective actions, including troubleshooting steps and system checks.

#### **3.4.5 Impartiality and Ethical Conduct**

Competency Description:

The assessor must be able to conduct assessments in a fair and impartial manner, ensuring that no bias influences their judgment. The assessor must maintain professionalism and adhere to ethical standards, providing a neutral and objective evaluation of the candidate's performance.

Key Responsibilities:

- Treat all candidates equally, providing them with the same opportunity to demonstrate their skills and knowledge.
- Maintain a neutral stance during the assessment, ensuring the results reflect the candidate's performance rather than personal opinions or preferences.

Example:

If an assessor is observing a candidate replace a fuel pump, they must ensure that all candidates are subject to the same conditions and evaluation criteria. If two candidates perform the same task, they should receive the same assessment criteria and be held to the same standards, regardless of their background or personal characteristics.

#### **3.4.6 Documentation and Reporting**

Competency Description:

The assessor must accurately document the assessment results, providing detailed feedback and ensuring that all records are in compliance with CAAT regulations. This includes correctly documenting the results of practical assessments, feedback for candidates, and any necessary corrective actions.

Key Responsibilities:

- Document the assessment results clearly, ensuring accuracy and compliance with CAAT and MTO standards.
- Provide constructive feedback that helps candidates understand where they need improvement.

Example:

After assessing a candidate's ability to perform a component replacement, the assessor must document the task completion, whether the candidate passed or failed, and provide specific feedback on areas that require improvement. If the candidate fails, the assessor must note the reasons for failure and outline any remedial actions needed.

### **3.4.7 Differences for Evaluating Assessors for Different Types of Practical Assessments**

The competencies for assessing Basic License and Type Rating candidates differ due to the complexity of the tasks involved. CAAT will evaluate nominated practical assessors based on the type of assessment they are conducting, ensuring that they have the appropriate competencies for the specific assessment type.

- 1) Type Rating Assessor Competencies:
  - Must have advanced knowledge of specific aircraft type regulations, systems, and operations.
  - Task Evaluation: Must be able to assess high-level tasks, such as engine removals, system calibrations, and high-performance troubleshooting.
  - Risk Management: Must be capable of evaluating risks associated with complex systems and ensure the safety of the Type Rating assessment process.
- 2) Basic License Assessor Competencies:
  - General knowledge of Part 66 and ICAO regulations for basic maintenance tasks.
  - Must focus on routine maintenance tasks such as component replacements, inspections, and basic troubleshooting.
  - Task Evaluation: The focus is on ensuring candidates can competently perform standard maintenance tasks in accordance with the basic principles of aircraft maintenance.

### 3.5 Differences for Evaluating Assessors for Different Types of Practical Assessments

CAAT recognizes that the competencies required for assessing Basic License and Type Rating candidates differ. As such, Phase 4 will assess the nominated practical assessors based on the type of practical assessments they are conducting. The assessor must meet the specific competency standards depending on whether they are conducting Basic License assessments or Type Rating assessments.

- 1) Type Rating Assessor Competencies:
  - o The Type Rating Assessor must have in-depth knowledge of aircraft-specific regulations, systems, and operations.
  - o They must be capable of assessing complex tasks such as engine removals, system calibrations, and troubleshooting on specific aircraft types.
- 2) Basic License Assessor Competencies:
  - o The Basic License Assessor must have general technical competence in basic aircraft maintenance tasks and focus on routine procedures, such as component replacements, routine inspections, and basic troubleshooting.

### 3.6 Outcome of Assessor Evaluation

After the evaluation of the nominated practical assessors, CAAT will determine whether they are authorized to conduct practical assessments for Basic License or Type Rating candidates. The possible outcomes of the assessor evaluation include:

- 1) Authorization:
  - o If the assessor meets all competency standards and regulatory requirements, CAAT will authorize the assessor to conduct practical assessments for the relevant training program.
- 2) Conditional Authorization:
  - o If the assessor demonstrates minor gaps in competency, CAAT may grant conditional authorization, with conditions such as additional training or mentoring to address the gaps.
- 3) Rejection:
  - o If the assessor does not meet the required competency standards or fails to demonstrate the necessary skills, CAAT may reject the assessor's nomination and may request further training or re-nomination of a more qualified assessor.

### 3.7 Feedback to the MTO

Following the assessor evaluation, CAAT will provide feedback to the MTO regarding the performance of the nominated practical assessors. This feedback will include:

- Assessment of Assessor Performance: Detailed feedback on the assessor's competencies in conducting practical assessments.
- Recommendations for Improvement: If any areas for improvement are identified, CAAT will provide recommendations, such as further training or mentorship for the assessor.

Document Type	Basic License Practical Assessment	Type Rating Assessment
Copy of CAAT Part-147 Approval Certificate	A copy of the CAAT Part-147 approval certificate, confirming the MTO is authorised to deliver maintenance training and eligible to apply for practical assessment authorisation.	A copy of the CAAT Part-147 approval certificate, confirming the MTO is authorised to deliver Type Rating training and eligible to apply for practical assessment authorisation.
Assessment Specifications	Assessment specifications document detailing the practical assessment system, including tasks, scoring systems, and procedures for Basic License assessments.	Assessment specifications document detailing the practical assessment system, including tasks, scoring systems, and procedures for Type Rating assessments.
Qualifications and Training Records of Practical Assessors	Qualifications and training records for all nominated practical assessors, confirming they meet the required experience and training standards.	Qualifications and training records for all nominated practical assessors, confirming they meet the required experience and type-specific qualifications for Type Rating assessments.
Facilities Documentation	Description of the facilities (workshops, classrooms, hangars, equipment) used for practical assessments.	Description of the facilities (workshops, classrooms, hangars, aircraft systems/tools) used for Type Rating practical assessments.
Self-Assessment for Skill Test Authorisation	Self-assessment document confirming the MTO's ability to conduct Basic License practical assessments in compliance with CAAT regulations.	Self-assessment document confirming the MTO's ability to conduct Type Rating practical assessments in compliance with CAAT regulations.