

# End-Point Assessment for The Aircraft Maintenance Technician Apprenticeship

The end-point assessment for the aircraft maintenance technician apprenticeship has been designed to reflect the two routes that are available which integrate either mandated qualifications or a regulatory training course. The content of the KSB's is identical for both routes, though the mandated qualifications or training course and integrated assessments are different for each one.

Apprentices are expected to only follow one of the routes. For ease of use, the end-point assessment has been separated into two sections:

- End-Point Assessment Plan for The Aircraft Maintenance Technician Apprenticeship (mandated qualification route)
- End-Point Assessment Plan for The Aircraft Maintenance Technician Apprenticeship (UK Part-66 Route)

There are specific requirements for the employers and training providers for the UK Part-66 route which must be adhered to.



# End-Point Assessment Plan for The Aircraft Maintenance Technician Apprenticeship (Mandated qualification route)

Apprenticeship Reference Number	Apprenticeship Level	Integration
ST1315	3	Mandated qualification

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### Introduction and overview

This document explains the requirements for end-point assessment (EPA) for the aircraft maintenance technician apprenticeship. This apprenticeship has integrated qualifications which are used for EPA purposes.

The awarding organisation (AO) is accountable for the mandated qualifications that are used as the integrated assessment methods (knowledge test and development competence assessment). The endpoint assessment organisation (EPAO) must take responsibility for the interview underpinned by a portfolio of evidence. EPAOs and AOs must work collaboratively to manage the delivery of the EPA.

The Institute for Apprenticeships and Technical Education (IfATE) have agreed a unique EPA model for those apprenticeships where the UK Civil Aviation Authority (CAA), the regulatory body for aviation within the UK, specifies the qualifying requirements for aircraft maintenance and aircraft airworthiness.

Aircraft maintenance technician apprentices, their employers, training providers and other interested parties should read this document.

A full-time aircraft maintenance technician apprentice typically spends 36 months on-programme (this means in training before the gateway). The apprentice must spend at least 12 months on-programme and complete the required amount of off-the-job training in line with the apprenticeship funding rules.

The EPA should be completed within an EPA period typically lasting 3 months.

The apprentice must complete their training and meet the gateway requirements before starting their EPA. The EPA will assess occupational competence.

An approved EPAO must conduct the EPA for this apprenticeship. Employers must work with the training provider to select an approved EPAO from the apprenticeship providers and assessment register (APAR). The integrated assessment method must be conducted in line with the conditions set by the qualification's awarding organisation.

Occupational competence is outlined by the EPA grade descriptors. The integrated assessment methods must be graded by the awarding organisation, or the centre, where centre devised assessment is used. The EPA outcome is determined by the EPAO. The EPAO must combine the outcomes of integrated and non-integrated assessment methods to determine the apprentice's overall grade.

This EPA has 3 assessment methods.

The grades available for each assessment method are below.

Assessment method 1 - knowledge test:

- fail
- pass

Assessment method 2 - development competence assessment:

- fail
- pass

Assessment method 3 - interview underpinned by a portfolio of evidence:

- fail
- pass
- distinction

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The result from each assessment method is combined to decide the overall apprenticeship grade. The following grades are available for the apprenticeship:

- fail
- pass
- distinction

# **EPA summary table**

On-programme - typically 36 months	<ul> <li>The apprentice must:</li> <li>complete training to develop the knowledge, skills and behaviours (KSBs) outlined in this apprenticeship's standard</li> <li>complete training towards English and mathematics qualifications in line with the apprenticeship funding rules</li> <li>compile a portfolio of evidence</li> <li>complete training towards the qualification listed in the aircraft maintenance technician apprenticeship standard</li> </ul>
	The qualifications required are: Level 2 Diploma in Aerospace and Aviation Engineering (Foundation Competence) - Pearson BTEC; QAN 601/7165/0 - OR- Level 2 Diploma in Aerospace and Aviation Engineering (Foundation Competence) C&G No.4605-02; QAN 601/7310/5 - OR- Level 2 Diploma in Aerospace and Aviation Engineering (Military Foundation Competence) C&G No.4608-50; QAN 603/1388/2 -OR- Level 2 Diploma in Aerospace and Aviation Engineering (Foundation Competence); EAL QAN 601/7289/7
	Level 3 Diploma in Aerospace and Aviation Engineering (Development Competence) 601/9051/6 – Pearson BTEC -OR- Level 3 Diploma in Aviation Maintenance (Development Competence) C&G No.4608-30; QAN 601/9036/X -OR- Level 3 Diploma in Aviation Maintenance (Development Competence) – Military C&G 4608-60; QAN 603/2068/0 -OR- EAL Level 3 Diploma in Aviation Maintenance (Development Competence) – 603/0372/4
	Level 3 Diploma in Aerospace and Aviation Engineering (Development Technical Knowledge) 601/9063/2 – Pearson BTEC -OR- Level 3 Diploma in On-Aircraft Maintenance Category A C&G No. 2675-04; QAN 600/1927/X -OR- Level 3 Diploma in Aircraft Maintenance (Military) C&G No. 4708-30; QAN 603/1392/4 -OR- Level 3 Diploma in Aircraft maintenance (Civil Aircraft Mechanical) C&G No. 2675-05; QAN 600/1929/3
End-point assessment gateway	The apprentice's employer must be content that the apprentice is occupationally competent.

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	The apprentice must:
	<ul> <li>confirm they are ready to take the EPA</li> </ul>
	<ul> <li>have achieved English and mathematics qualifications in line with the apprenticeship funding rules</li> <li>have passed Level 2 Diploma in Aerospace and Aviation Engineering (Foundation Competence) - Pearson BTEC; QAN 601/7165/0 -OR- Level 2 Diploma in Aerospace and Aviation Engineering (Foundation Competence) C&amp;G No.4605-02; QAN 601/7310/5 -OR- Level 2 Diploma in Aerospace and Aviation Engineering (Military Foundation Competence) C&amp;G No.4608- 50; QAN 603/1388/2 -OR- Level 2 Diploma in Aerospace and Aviation Engineering (Foundation Competence); EAL QAN 601/7289/7</li> </ul>
	<ul> <li>have passed Level 3 Diploma in Aerospace and Aviation Engineering (Development Competence) 601/9051/6 – Pearson BTEC -OR- Level 3 Diploma in Aviation Maintenance (Development Competence) C&amp;G No.4608-30; QAN 601/9036/X -OR- Level 3 Diploma in Aviation Maintenance (Development Competence) – Military C&amp;G 4608-60; QAN 603/2068/0 -OR- EAL Level 3 Diploma in Aviation Maintenance (Development Competence) – 603/0372/4</li> </ul>
	<ul> <li>have passed Level 3 Diploma in Aerospace and Aviation Engineering (Development Technical Knowledge) 601/9063/2 – Pearson BTEC -OR- Level 3 Diploma in On-Aircraft Maintenance Category A C&amp;G No. 2675-04; QAN 600/1927/X - OR- Level 3 Diploma in Aircraft Maintenance (Military) C&amp;G No. 4708-30; QAN 603/1392/4 -OR- Level 3 Diploma in Aircraft maintenance (Civil Aircraft Mechanical) C&amp;G No. 2675-05; QAN 600/1929/3</li> </ul>
	For the interview underpinned by a portfolio of evidence, the apprentice must submit a portfolio of evidence.
	Gateway evidence must be submitted to the EPAO, along with any organisation specific policies and procedures requested by the EPAO.
End-point assessment - typically 3 months	The grades available for each assessment method are below Knowledge test: • fail • pass
	Development competence assessment: • fail • pass
	Interview underpinned by a portfolio of evidence: • fail • pass • distinction

	Overall EPA and apprenticeship can be graded: • fail • pass • distinction
Professional recognition	<ul> <li>This apprenticeship aligns with: <ul> <li>Royal Aeronautical Society for Engineering Technician (EngTech)</li> </ul> </li> <li>This apprenticeship aligns with: <ul> <li>Institution of Engineering and Technology (IET) for Engineering Technician (EngTech)</li> </ul> </li> <li>This apprenticeship aligns with: <ul> <li>Institution of Mechanical Engineers (IMechE) for Engineering Technician (EngTech)</li> </ul> </li> </ul>
Re-sits and re-takes	The details for re-sits and re-takes are below: • Re-take and re-sit grade cap: pass • Re-sit timeframe: typically 3 months • Re-take timeframe: typically 6 months

### **Duration of end-point assessment period**

The EPA is taken in the EPA period. The EPA period starts when the EPAO confirms the gateway requirements have been met and is typically 3 months.

The EPAO should confirm the gateway requirements have been met and start the EPA as quickly as possible.

### **EPA** gateway

The apprentice's employer must be content that the apprentice is occupationally competent. That is, they are deemed to be working at or above the level set out in the apprenticeship standard and ready to undertake the EPA. The employer may take advice from the apprentice's training provider, but the employer must make the decision. The apprentice will then enter the gateway. The apprentice must meet the gateway requirements before starting their EPA.

They must:

- confirm they are ready to take the EPA
- have achieved English and mathematics qualifications in line with the apprenticeship funding rules
- have passed Level 2 Diploma in Aerospace and Aviation Engineering (Foundation Competence)

   Pearson BTEC; QAN 601/7165/0 -OR- Level 2 Diploma in Aerospace and Aviation Engineering (Foundation Competence) C&G No.4605-02; QAN 601/7310/5 -OR- Level 2 Diploma in Aerospace and Aviation Engineering (Military Foundation Competence) C&G No.4608-50; QAN 603/1388/2 -OR- Level 2 Diploma in Aerospace and Aviation Engineering (Foundation Competence); EAL QAN 601/7289/7
- have passed Level 3 Diploma in Aerospace and Aviation Engineering (Development Competence) 601/9051/6 – Pearson BTEC -OR- Level 3 Diploma in Aviation Maintenance (Development Competence) C&G No.4608-30; QAN 601/9036/X -OR- Level 3 Diploma in

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Aviation Maintenance (Development Competence) – Military C&G 4608-60; QAN 603/2068/0 - OR- EAL Level 3 Diploma in Aviation Maintenance (Development Competence) – 603/0372/4

- have passed Level 3 Diploma in Aerospace and Aviation Engineering (Development Technical Knowledge) 601/9063/2 – Pearson BTEC -OR- Level 3 Diploma in On-Aircraft Maintenance Category A C&G No. 2675-04; QAN 600/1927/X -OR- Level 3 Diploma in Aircraft Maintenance (Military) C&G No. 4708-30; QAN 603/1392/4 -OR- Level 3 Diploma in Aircraft maintenance (Civil Aircraft Mechanical) C&G No. 2675-05; QAN 600/1929/3
- submit a portfolio of evidence for the interview underpinned by a portfolio of evidence

#### Portfolio of evidence requirements:

The apprentice must compile the portfolio of evidence during the on-programme period of the apprenticeship. It should only contain evidence related to the KSBs that will be assessed by the interview. It will typically contain 10 discrete pieces of evidence. Evidence must be mapped against the KSBs. Evidence may be used to demonstrate more than one KSB; a qualitative as opposed to quantitative approach is suggested.

Evidence sources may include:

- workplace documentation and records
- workplace policies and procedures
- witness statements
- annotated photographs
- video clips (maximum total duration 10 minutes); the apprentice must be in view and identifiable

This is not a definitive list; other evidence sources can be included.

The portfolio of evidence should not include reflective accounts or any methods of self-assessment. Any employer contributions should focus on direct observation of performance (for example, witness statements) rather than opinions. The evidence provided should be valid and attributable to the apprentice; the portfolio of evidence should contain a statement from the employer and apprentice confirming this.

The EPAO should not assess the portfolio of evidence directly as it underpins the interview. The independent assessor should review the portfolio of evidence to prepare questions for the interview. They are not required to provide feedback after this review.

Gateway evidence must be submitted to the EPAO, along with any organisation specific policies and procedures requested by the EPAO.

### Order of assessment methods

The knowledge test and development competence assessment must be passed and completed prior to the interview taking place.

### **Knowledge test**

This is an integrated assessment method. The knowledge statements aligned to this assessment method will be assessed by the apprentice passing one of the knowledge qualifications listed below:

- Level 3 Diploma in Aerospace and Aviation Engineering (Development Technical Knowledge) 601/9063/2 Pearson BTEC or,
- Level 3 Diploma in On-Aircraft Maintenance Category A C&G No. 2675-04; QAN 600/1927/X or,
- Level 3 Diploma in Aircraft Maintenance (Military) C&G No. 4708-30; QAN 603/1392/4
- Level 3 Diploma in Aircraft maintenance (Civil Aircraft Mechanical) C&G No. 2675-05; QAN 600/1929/3

### **Overview**

For the knowledge test assessment method, the apprentice completes one of the listed knowledge qualifications. This will give the apprentice the opportunity to demonstrate the knowledge mapped to this assessment method. The knowledge test must be structured to give the apprentice the opportunity to demonstrate the knowledge mapped to this assessment method.

### Rationale

This assessment method is being used because:

- it can assess knowledge it is easy to administer
- it can be conducted remotely and administered to multiple apprentices at the same time, potentially reducing cost.
- it reduces the assessment burden on the apprentice

### Delivery

The delivery of the knowledge test, which is assessed by the integrated knowledge qualifications, must align with the conditions set out by the awarding organisation for the integrated qualifications. The knowledge can be tested using, for example, assignments, essays, multiple-choice tests or any other method of testing as determined by the AO.

The apprentice must be given at least 2 weeks' notice of the date and time of any tests.

### **Test administration**

The administration of the knowledge tests assessed by the integrated knowledge qualifications must align to the conditions set by the awarding organisation. The tests for the units or modules will either be set, marked and graded by the AO, or the AO may allow centre devised assessment.

Tests that are taken in a controlled environment must be taken in the presence of an invigilator who is the responsibility of the AO. The AO must have an invigilation policy setting out how the test must be conducted. It must state the ratio of apprentices to invigilators for the setting and allow the test to take place in a secure way.

The AO is responsible for the security of the test including the arrangements for on-line testing. The AO must ensure that their security arrangements maintain the validity and reliability of the test. The AO must verify the apprentice's identity and ensure invigilation of the apprentice for example, with 360-degree cameras and screen sharing facilities.

Where centre devised assessments are used, the centre is responsible for invigilation in controlled environments including having an invigilation policy, and for the security of the tests including on-line testing.

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### Marking

The responsibility for the marking of the test is with the AO. They must produce a marking scheme to be followed. Marking by computer is allowed where question types support this, for example multiple-choice tests. The AO is responsible for overseeing the marking, standardisation and moderation of the test.

To ensure marking judgements are fair and accurate, and uphold the principles of the EPA, the marking of all integrated or parts of the integrated assessments, must be marked or graded by someone independent of the apprentice.

Where centre devised assessments are used, the marking and grading must align with the conditions set by the AO.

### **Assessment location**

Where the test is taken in a controlled and invigilated environment, this must be a quiet room, free from distractions and influence. The AO must check the venue is suitable.

The test could take place remotely if the appropriate technology and systems are in place to prevent malpractice.

### **Question and resource development**

The AO must develop a purpose-built assessment specification and question bank. It is recommended this is done in consultation with employers or subject matter experts for this occupation. The AO should maintain the security and confidentiality of EPA materials when consulting with employers. The assessment specification and question bank must be reviewed to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The AO must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.

The AO must ensure that apprentice has a different set of questions in the case of re-sits or re-takes.

The AO must produce the following materials to support the test:

- administration materials
- moderation and standardisation materials
- guidance materials
- grading guidance
- specification
- sample test and mark schemes
- live tests and mark schemes
- question bank

The AO must ensure that the materials are subject to quality assurance procedures including standardisation and moderation.

Where centre devised assessment is used, the question and resource development is the responsibility of the centre and should align to the conditions set by the AO.

### **Development competence assessment**

## Interview underpinned by a portfolio of evidence

### **Overview**

In the interview, an independent assessor asks the apprentice questions. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method.

The apprentice can refer to and illustrate their answers with evidence from their portfolio of evidence.

### Rationale

This assessment method is being used because:

- it assesses KSBs holistically and objectively
- it allows for the assessment of KSBs that do not occur on a predictable or regular basis
- it allows for assessment of responses where there are a range of potential answers
- it can be conducted remotely, potentially reducing cost.

### **Delivery**

The interview must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade.

An independent assessor must conduct and assess the interview.

The purpose is to assess the apprentice's competence against the following themes:

- health, safety, environment and sustainability
- maintenance, installation and repair
- engineering
- problem solving and fault finding
- digital and information technology
- team working
- communication
- continual professional development
- quality assurance
- equity, diversity and inclusion

The EPAO must give an apprentice a minimum of 2 weeks' notice of the interview. The independent assessor must have at least 2 weeks to review the supporting documentation.

The apprentice must have access to their portfolio of evidence during the interview.

The apprentice can refer to and illustrate their answers with evidence from their portfolio of evidence however, the portfolio of evidence is not directly assessed.

The interview must last for 60 minutes. The independent assessor can increase the time of the interview by up to 10%. This time is to allow the apprentice to respond to a question if necessary.

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The independent assessor must ask at least 6 questions. The independent assessor must use the questions from the EPAO's question bank or create their own questions in line with the EPAO's training. Follow-up questions are allowed where clarification is required.

The independent assessor must make the grading decision.

The independent assessor must keep accurate records of the assessment. They must record:

- the apprentice's answers to questions
- the KSBs demonstrated in answers to questions
- the grade achieved

### **Assessment location**

The interview must take place in a suitable venue selected by the EPAO for example, the EPAO's or employer's premises.

The interview can be conducted by video conferencing. The EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided.

The interview should take place in a quiet room, free from distractions and influence.

### **Question and resource development**

The EPAO must develop a purpose-built assessment specification and question bank. It is recommended this is done in consultation with employers of this occupation. The EPAO should maintain the security and confidentiality of EPA materials when consulting with employers. The assessment specification and question bank must be reviewed at least once a year to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The EPAO must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.

The EPAO must ensure that the apprentice has a different set of questions in the case of re-sits or retakes.

The EPAO must produce the following materials to support the interview:

- independent assessor assessment materials which include:
  - o training materials
  - o administration materials
  - o moderation and standardisation materials
  - o guidance materials
  - o grading guidance
  - o question bank
- EPA guidance for the apprentice and the employer

The EPAO must ensure that the EPA materials are subject to quality assurance procedures including standardisation and moderation.

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# Grading

### **Knowledge test**

Fail - does not meet pass criteria

THEME KSBS	PASS A PASS FOR THIS ASSESSMENT METHOD WILL BE ACHEIVED AS DETAILED BELOW.
Knowledge qualification	The apprentice will be assessed in line with the conditions set by the awarding organisation. In order to pass, the apprentice must achieve the requirements of the pass criteria of the integrated qualification.
K1 K15 K24	Awarding organisations or centres must make clear in their marking criteria which grade boundary for the integrated assessment method represents a pass grade for the EPA.

### **Development competence assessment**

Fail - does not meet pass criteria

THEME KSBS	PASS A PASS FOR THIS ASSESSMENT METHOD WILL BE ACHEIVED AS DETAILED BELOW.
Development competence assessment K3 K5 K8 K10 K11 K18 S1 S2 S3 S5 S6 S7 S9 S10 S11 S12 S13 S19 S20	The apprentice will be assessed in line with the conditions set by the awarding organisation. In order to pass, the apprentice must achieve the requirements of the pass criteria of the integrated qualification. Awarding organisations or centres must make clear in their marking criteria which grade boundary for the integrated assessment method represents a pass grade for the EPA.

### Interview underpinned by a portfolio of evidence

Fail - does not meet pass criteria THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
Health, safety, environment and sustainability K2 K22 S15 B1 B6	Describes how they comply with environmental and sustainability regulations and procedures and consider the environment and sustainability through the efficient use of resources. Describes how they identify and segregate resources for reuse,	Explains how following their company's procedures reduces the impact on the environment. (K22, S15)

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
	recycling and disposal in line with company procedures. Describes the responsibilities of their role including near miss reporting and how they prioritise health and safety, flight safety and consider human factors. (K2, K22, S15, B1, B6)	
Maintenance, installation and repair K4 K6 K9 K12 K13 S18	Explains the engineering maintenance processes and procedures for reporting and addressing unexpected issues. (K4) Explains maintenance strategies and practices for planned, preventative and reactive methods and their frequency. Describes the operational considerations and impact of aircraft maintenance on the organisation or operation. (K6, K13) Describes aircraft maintenance consumables, including the properties, characteristics and the impact of their use. (K12) Describes how they consider the properties and characteristics of aircraft materials and the possibility of damage to the aircraft, for example barely visible impact damage, whilst performing maintenance activities. (K9, S18)	None.

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
Engineering S8	Explains how they apply mathematical techniques, and engineering principles to solve engineering problems. (S8)	None.
Problem solving and fault finding K16 S4	Describes the problem solving techniques they use to identify a problem, how they collect and analyse evidence and determine the cause, and maintenance activity required to rectify the problem. (K16, S4)	Describes the problems solving techniques they used to identify the underlying causes and solutions to complex problems for example, multiple causes. (K16, S4)
Digital and information technology K19 K20 S14	Describes how they use information technology in work tasks in compliance with GDPR and cyber security requirements. (K19, S14) Explains digital technologies and information systems and connected technologies used in the industry. (K20)	None.
Team working K14 K27 S24 B2 B3	Describes how they apply team working principles to meet their team's work goals and how they respond and adapt to work demands and situations. (K27, S24, B2, B3) Describes the aircraft maintenance environment including the interdependencies and function between the regulator and different teams. Describes the limits of their responsibility and autonomy, with the associated reporting channels. (K14)	Explains the impact teamwork has on work activity completion within the company. (K27, S24)
Communication K7 K17 K21	Describes how they use verbal communication techniques	Describes when they have given advice and guidance

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
S16 S17	suitable for the context, overcoming barriers and adapting style and use of terminology to suit the audience. (K21, S16) Describes aircraft visuals and	during a verbal technical handover. (K21, S16)
	symbols used in the workplace. (K7)	
	Describes how they communicate in writing in the workplace using techniques suitable for the context. (K17, S17)	
Continual professional development K25 S21 B4	Outlines the planned and unplanned learning and development activities they have carried out and shows a commitment to future continued professional development to maintain and enhance competence. (K25, S21, B4)	None.
Quality assurance K26 S23 B5	Describes how they take responsibility for their work when applying quality assurance procedures for example completion of aircraft servicing schedules and aircraft technical logs, in line with company requirements. (K26, S23, B5)	None.
Equity, diversity and inclusion K23 S22 B7	Describes how they apply equity, diversity and inclusion policies to support a diverse and inclusive culture in the workplace, taking account of unconscious bias. (K23, S22, B7)	Explains the benefits of supporting a diverse and inclusive culture for the business. (K23, S22)

# **Overall EPA grading**

Performance in the EPA determines the apprenticeship grade of:

- ₀fail
- opass
- odistinction

An independent assessor must grade the interview in line with this EPA plan. The EPAO must be notified of the outcomes of the integrated assessment methods. The EPAO must combine the individual assessment method grades to determine the overall EPA grade.

If the apprentice fails one or more assessment methods, they will be awarded an overall fail.

To achieve an overall pass, the apprentice must achieve at least a pass in all the assessment methods. To achieve a distinction, the apprentice must achieve a pass in the knowledge test and the development competence assessment and a distinction in the interview underpinned by a portfolio of evidence.

Awarding organisations should make clear in their marking criteria which grade boundary for the integrated assessment method represents a pass grade for the EPA. This pass grade must reflect demonstration of occupational competence in the KSBs.

Grades from individual assessment methods must be combined in the following way to determine the grade of the EPA overall.

KNOWLEDGE TEST	DEVELOPMENT COMPETENCE ASSESSMENT	INTERVIEW UNDERPINNED BY A PORTFOLIO OF EVIDENCE	OVERALL GRADING
Fail	Any grade	Any grade	Fail
Any grade	Fail	Any grade	Fail
Any grade	Any grade	Fail	Fail
Pass	Pass	Pass	Pass
Pass	Pass	Distinction	Distinction

### **Re-sits and re-takes**

If the apprentice fails one assessment method or more, they can take a re-sit or a re-take at their employer's discretion. The apprentice's employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, whereas a re-take does. The apprentice should have a supportive action plan to prepare for a re-sit or a re-take.

The employer and the EPAO should agree the timescale for a re-sit or re-take. A re-sit is typically taken within 3 months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 6 months of the EPA outcome notification.

Failed assessment methods must be re-sat or re-taken within a 6-month period from the EPA outcome notification, otherwise the entire EPA will need to be re-sat or re-taken in full.

Re-sits and re-takes are not offered to an apprentice wishing to move from pass to a higher grade.

The apprentice will get a maximum EPA grade of pass for a re-sit or re-take, unless the EPAO determines there are exceptional circumstances.

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# **Roles and responsibilities**

ROLES	RESPONSIBILITIES
Apprentice	As a minimum, the apprentice should:
	<ul> <li>complete on-programme training to meet the KSBs as outlined in the occupational standard for a minimum of 12 months</li> <li>complete the required amount of off-the-job training specified by the apprenticeship funding rules and as arranged by the employer and training provider</li> <li>understand the purpose and importance of EPA</li> <li>apply for any reasonable adjustments and special considerations</li> <li>prepare for and undertake the EPA including meeting all gateway requirements</li> <li>ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan</li> </ul>
Employer	<ul> <li>As a minimum, the apprentice's employer must: <ul> <li>select the training provider</li> <li>work with the training provider to select the EPAO</li> <li>ensure that the apprentice is enrolled on mandated qualifications in line with the occupational standard</li> <li>work with the training provider (where applicable) to support the apprentice in the workplace and to provide the opportunities for the apprentice to develop the KSBs</li> <li>arrange and support off-the-job training to be undertaken by the apprentice</li> <li>decide when the apprentice is working at or above the occupational standard and is ready for EPA</li> <li>ensure the apprentice is prepared for the EPA</li> <li>ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan</li> <li>confirm arrangements with the EPAO for the EPA (who, when, where) in a timely manner</li> <li>ensure that the integrated assessment method is scheduled with the AO for a date and time in line with EPA requirements</li> <li>provide access to any employer-specific documentation as required for example, company policies</li> <li>ensure that any required supervision during the EPA period, as stated within this EPA plan, is in place</li> <li>ensure that any required supervision during the EPA period, as stated within this EPA plan, is in place</li> <li>ensure that any required supervision during the EPA period, as stated within this EPA plan, is in place</li> </ul> </li> </ul>
EPAO	As a minimum, the EPAO must:

ROLES	RESPONSIBILITIES	
	<ul> <li>conform to the requirements of this EPA plan and deliver its requirements in a timely manner</li> </ul>	
	<ul> <li>conform to the requirements of the APAR</li> <li>conform to the requirements of the external quality assurance provider (EQAP)</li> </ul>	
	<ul> <li>understand the apprenticeship including the occupational standard, EPA plan and funding</li> </ul>	
	<ul> <li>make all necessary contractual arrangements including agreeing the price of the EPA</li> </ul>	
	<ul> <li>have third party arrangements in place with the AO to:         <ul> <li>work collaboratively to manage the delivery of the EPA</li> </ul> </li> </ul>	
	<ul> <li>ensure the EPA is arranged to meet the scheduling requirements set out in this EPA plan</li> </ul>	
	<ul> <li>to share the outcomes of the assessment methods in a timely manner.</li> </ul>	
	<ul> <li>develop and produce assessment materials including specifications and marking materials (for example mark schemes, practice materials, training material) for the non-integrated assessment methods</li> </ul>	
	<ul> <li>maintain and apply a policy for the declaration and management of conflict of interests and independence. This must ensure, as a minimum, there is no personal benefit or detriment for those delivering the EPA or from the result of an assessment. It must cover:</li> </ul>	
	<ul> <li>apprentices</li> <li>employers</li> </ul>	
	<ul> <li>independent assessors</li> <li>any other roles involved in delivery or grading of the EPA</li> </ul>	
	<ul> <li>have quality assurance systems and procedures that ensure fair, reliable and consistent assessment and maintain records of internal quality assurance (IQA) activity for external quality assurance (EQA) purposes</li> </ul>	
	<ul> <li>appoint independent, competent, and suitably qualified assessors in line with the requirements of this EPA plan</li> </ul>	
	<ul> <li>appoint administrators, invigilators and any other roles where required to facilitate the EPA</li> </ul>	
	<ul> <li>deliver induction, initial and on-going training for all their independent assessors and any other roles involved in the delivery or grading of the non-integrated assessment methods of the EPA as specified within this EPA plan. This should include how to record the rationale and evidence for grading decisions where required</li> </ul>	
	<ul> <li>conduct standardisation with all their independent assessors before allowing them to deliver an EPA, when the EPA is updated, and at least once a year</li> </ul>	
	develop and provide assessment recording documentation to ensure a clear and auditable process is in place	

ROLES	RESPONSIBILITIES	
ROLES	<ul> <li>for providing assessment decisions and feedback to all relevant stakeholders</li> <li>maintain and apply a policy for reasonable adjustments and special considerations for apprentices</li> <li>use language in the development and delivery of the EPA that is appropriate to the level of the apprenticeship</li> <li>provide information, advice, and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA</li> <li>confirm the gateway requirements have been met before they start the EPA for an apprentice</li> <li>host and facilitate the EPA or make suitable alternative arrangements</li> <li>maintain the security of the EPA including, but not limited to, verifying the identity of the apprentice, invigilation and security of materials</li> <li>arrange for the non-integrated assessment methods of the EPA to take place in a timely manner, in consultation with the employer</li> <li>deliver the non-integrated assessment away from the workplace, ensure that the apprentice has access to the required resources and liaise with the employer to agree this if necessary</li> <li>confirm the overall grade awarded including the outcomes of the integrated and non-integrated assessment methods in line with this EPA plan</li> <li>condium the overall grade awarded including the outcomes of the integrated and non-integrated assessment methods in line with this EPA plan</li> <li>condium the overall grade awarded including the outcomes of the integrated and non-integrated assessment methods in line with this EPA plan</li> <li>conduct moderation of all their independent assessors' decisions once EPAs have started</li> <li>monitor the performance of all their independent assessors and provide re-training where necessary</li> <li>maintain and apply a policy for conducting appeals</li> <li>arrange the certification of the apprenticeship</li> </ul>	
Awarding organisation	<ul> <li>As a minimum, the Awarding Organisation must: <ul> <li>conform to the requirements of this EPA plan and deliver its requirements in a timely manner</li> <li>conform to the requirements of any regulators for the mandated qualification</li> <li>understand the apprenticeship including the occupational standard, EPA plan and funding</li> <li>confirm that they agree to the conditions of integration for the integrated assessment method, as outlined in the EPA plan</li> <li>make all necessary contractual arrangements</li> <li>have third party arrangements in place with the EPAO to: <ul> <li>work collaboratively to manage the delivery of the EPA where appropriate</li> <li>ensure the EPA is arranged to meet the scheduling requirements set out in this EPA plan</li> <li>share the outcomes of the integrated assessment methods in a timely manner</li> </ul> </li> </ul></li></ul>	

ROLES	RESPONSIBILITIES	
	<ul> <li>develop and produce assessment materials including specifications and marking materials (for example mark schemes, practice materials, training material) for the integrated assessment method</li> </ul>	
	<ul> <li>maintain and apply a policy for the declaration and management of conflict of interests and independence relating to the EPA of an apprentice (including by way of moderation).</li> </ul>	
	<ul> <li>have quality assurance systems and procedures that ensure fair, reliable and consistent assessment and maintain records of internal quality assurance (IQA) activity</li> <li>source a suitably qualified and independent person who must</li> </ul>	
	administer all aspects of the integrated assessment method. This means that they must not: o be connected to the apprentice	
	<ul> <li>have been involved in the management or training of the apprentice</li> <li>have a vested interest in the outcome</li> </ul>	
	• Where this is not possible, by exception, a person who has delivered the assessed content may administer the assessment. This is providing they are not the sole administrator.	
	<ul> <li>source a suitably qualified and independent person who must grade all aspects of the integrated assessment method. The person making the grading judgement must not be employed by:</li> </ul>	
	$_{\circ}$ the same organisation as the apprentice	
	<ul> <li>the apprentice's training provider</li> </ul>	
	<ul> <li>This means that the integrated assessment method/aspects must be marked by either:</li> </ul>	
	$\circ$ the awarding organisation,	
	<ul> <li>an independent person appointed by the awarding organisation, or an independent assessor sourced by, or from, the EPAO</li> </ul>	
	$\circ$ or a combination of the above.	
	• In rare circumstances, training provider staff may mark the integrated assessment method. This will only be to mark tests where there is a right or wrong answer, for example, multiple-choice tests. Strict arrangements must be in place for monitoring, moderation and quality assurance.	
	develop and produce assessment materials including specifications and marking materials (for example mark schemes, practice materials, training material) for the integrated assessment methods	
	<ul> <li>deliver induction, initial and on-going training for all their independent assessors and any other roles involved in the administration or grading of the integrated assessment method of the EPA as specified within this EPA plan. This should include</li> </ul>	

ROLES	RESPONSIBILITIES		
	<ul> <li>how to record the rationale and evidence for grading decisions where required</li> <li>provide information, advice, and guidance documentation to enable apprentices, employers and training providers to prepare for the integrated assessment method</li> <li>arrange for the integrated assessment methods of the EPA to take place in a timely manner, in consultation with the employer</li> <li>maintain the security of the integrated assessment method including, but not limited to, verifying the identity of the apprentice, invigilation and security of materials</li> <li>must externally set and externally mark the integrated assessment method</li> <li>maintain and apply a policy for reasonable adjustment and special considerations for apprentices</li> <li>deliver the integrated assessment method in line with this EPA plan</li> <li>conduct moderation of all their independent assessors' decisions for integrated assessment methods</li> <li>monitor the performance of all their independent assessors and provide re-training where necessary</li> <li>an auditable process is in place for providing assessment decisions and feedback to all relevant stakeholders</li> <li>must give IfATE at least 6 months' notice of any changes to mandated qualifications</li> <li>Where centre devised assessment is used, the AO must:</li> <li>comply with Ofqual's Centre Assessment Standards Scrutiny requirements</li> <li>decide the scrutiny approach that is most appropriate to the assessment, qualification, or qualification type</li> <li>create a strategy to ensure that centre assessments are conducted in a way so that standards are maintained across different centres and over time</li> </ul>		
Independent assessor	<ul> <li>As a minimum, an independent assessor must:</li> <li>be independent, with no conflict of interest with the apprentice, their employer or training provider, specifically, they must not receive a personal benefit or detriment from the result of the assessment</li> <li>have, maintain and be able to evidence up-to-date knowledge and expertise of the occupation</li> <li>have the competence to assess the EPA and meet the requirements of the IQA section of this EPA plan</li> <li>understand the apprenticeship's occupational standard and EPA plan</li> <li>attend induction and standardisation events before they conduct an EPA for the first time, when the EPA is updated, and at least once a year</li> </ul>		

ROLES	RESPONSIBILITIES	
	<ul> <li>use language in the delivery of the EPA that is appropriate to the level of the apprenticeship</li> <li>work with other personnel, including additional assessors where used, in the preparation and delivery of assessment methods</li> <li>conduct the EPA to assess the apprentice against the KSBs and in line with the EPA plan</li> <li>make final grading decisions in line with this EPA plan</li> <li>record and report assessment outcome decisions</li> <li>comply with the IQA requirements of the EPAO</li> <li>comply with external quality assurance (EQA) requirements</li> </ul>	
Training provider	<ul> <li>As a minimum, the training provider must: <ul> <li>conform to the requirements of the apprenticeship provider and assessment register (APAR)</li> <li>ensure procedures are in place to mitigate against any conflict of interest</li> <li>work with the employer and support the apprentice during the off-the-job training to provide the opportunities to develop the KSBs as outlined in the occupational standard</li> <li>deliver training to the apprentice as outlined in their apprenticeship agreement</li> <li>monitor the apprentice's progress during any training provider led on-programme learning</li> <li>ensure the apprentice is prepared for the EPA</li> <li>advise the employer, upon request, on the apprentice's readiness for EPA</li> <li>work with the employer to select the EPAO</li> <li>ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan</li> <li>not make any adaptations to aspects of the integrated assessment method</li> <li>remain independent from the delivery of the non-integrated assessment method for except with the marking of tests where there is a right or wrong answer for example multiple-choice tests or where there is centre devised assessment</li> <li>remain independent from the administration of the integrated assessment method. Where this is not possible, by exception and agreed by the awarding organisation or within their conditions of assessment, a person who has delivered the assessed content may administer the assessment. This is providing they are not the sole administrator.</li> </ul> </li> <li>In addition, where centre devised assessment is used, the training provider must: <ul> <li>ecomply with the AO's Centre Assessment Standards Scrutiny requirements</li> <li>ensure that centre assessment materials including specifications and marking materials (for example mark schemes, practice</li> </ul> </li> </ul>	

ROLES	RESPONSIBILITIES
	<ul> <li>materials, training materials) for the integrated assessment methods</li> <li>maintain security of the assessments</li> <li>source a suitably qualified and independent person who must administer all aspects of the integrated assessment method.</li> <li>deliver induction, initial and on-going training for all their independent assessors and any other roles involved in the administration or grading of the integrated assessment method of the EPA as specified within this EPA plan. This should include how to record the rationale and evidence for grading decisions where required</li> <li>maintain and apply a policy for reasonable adjustments and special considerations for apprentices</li> <li>deliver the integrated assessment method in line with this EPA plan and the conditions set by the AO</li> <li>conduct moderation of all their independent assessors and provide re-training where necessary</li> <li>have an auditable process in place to provide assessment decisions and feedback to all relevant stakeholders</li> <li>maintain and apply a policy for conducting appeals</li> <li>have quality assurance systems and procedures that ensure fair, reliable and consistent assessment and maintain records of internal quality assurance (IQA) activity for external quality assurance</li> </ul>

### **Reasonable adjustments**

The EPAO, AO and training provider must have reasonable adjustments arrangements for the EPA.

This should include:

- how an apprentice qualifies for a reasonable adjustment
- what reasonable adjustments may be made

Adjustments must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

The EPAO, AO and training provider must have special considerations arrangements for the EPA.

This should include:

- how an apprentice qualifies for a special consideration
- what special considerations may be made

Special considerations must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

## Internal quality assurance

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Internal quality assurance refers to the strategies, policies and procedures that an EPAO and AO must have in place to ensure valid, consistent and reliable EPA decisions.

EPAOs and AOs for this EPA must adhere to the requirements within the roles and responsibilities table.

EPAOs must also appoint independent assessors who:

 have recent relevant experience of the occupation or sector to at least occupational level 3 gained in the last 3 years or significant experience of the occupation or sector

### Value for money

Affordability of the EPA will be aided by using at least some of the following:

- completing applicable assessment methods online (for example computer-based assessment)
- utilising digital remote platforms to conduct applicable assessment methods
- using the employer's premises

### **Professional recognition**

This apprenticeship aligns with:

- Royal Aeronautical Society for Engineering Technician (EngTech)
- This apprenticeship aligns with:
  - Institution of Engineering and Technology (IET) for Engineering Technician (EngTech)

This apprenticeship aligns with:

• Institution of Mechanical Engineers (IMechE) for Engineering Technician (EngTech)

# **KSB** mapping table

KNOWLEDGE	ASSESSMENT METHODS
<b>K1</b> Awareness of health and safety regulations, standards, and guidance - their purpose and impact on role: Control of Substances Hazardous to Health (COSHH), good housekeeping, Health and Safety at work Act, manual handling, Personal Protective Equipment (PPE), risk assessments, Reporting of Injuries, Diseases, and Dangerous Occurrences Regulations (RIDDOR), safe systems of work, types of hazards.	Knowledge test
<b>K2</b> Responsibilities of technician's role including near miss reporting and working at height procedures.	Interview underpinned by a portfolio of evidence
<b>K3</b> Standard operating procedures (SOPs). What they are and why they are important.	Development competence assessment
<b>K4</b> Engineering maintenance report of occurrences: processes and procedures for reporting and addressing unexpected issues.	Interview underpinned by a portfolio of evidence
<b>K5</b> Maintenance activities: approved methods and practices for aircraft and aircraft components.	Development competence assessment
<b>K6</b> Aircraft maintenance strategies and practices: planned, preventative and reactive methods and their frequency.	Interview underpinned by a portfolio of evidence
<b>K7</b> Aircraft visuals and symbols in the workplace.	Interview underpinned by a portfolio of evidence
K8 Principles of aircraft systems.	Development competence assessment
K9 Properties and characteristics of aircraft materials.	Interview underpinned by a portfolio of evidence
<b>K10</b> Preparatory consideration for maintenance activity.	Development competence assessment

KNOWLEDGE	ASSESSMENT METHODS
<b>K11</b> Tools and equipment: types of tools and equipment, tool control. Calibrated equipment requirements including calibration certificates.	Development competence assessment
<b>K12</b> Aircraft maintenance consumables: types of consumables, properties, characteristics, and impact of their use.	Interview underpinned by a portfolio of evidence
<b>K13</b> Operational considerations and impact of aircraft maintenance on the organisation or operation.	Interview underpinned by a portfolio of evidence
<b>K14</b> Aircraft maintenance environment: interdependencies and function between regulators and different teams, limits of responsibility and autonomy with the associated reporting channels.	Interview underpinned by a portfolio of evidence
<b>K15</b> Engineering mathematical techniques and principles: calculations, conversions, graphical expressions, symbols, and formulae.	Knowledge test
<b>K16</b> Problem solving principles: define the problem, collect evidence, analyse evidence, determine the cause and the maintenance activity.	Interview underpinned by a portfolio of evidence
<b>K17</b> Written communication techniques. Aircraft maintenance engineering terminology.	Interview underpinned by a portfolio of evidence
K18 Documentation requirements: records, electronic or paper.	Development competence assessment
<b>K19</b> Information technology: Management Information Systems (MIS), spreadsheets, presentation, word processing, email, virtual communication. General Data Protection Regulation (GDPR). Cyber security.	Interview underpinned by a portfolio of evidence
<b>K20</b> Awareness of digital technologies and information systems: connected technologies in the aviation industry.	Interview underpinned by a portfolio of evidence

KNOWLEDGE	ASSESSMENT METHODS
<b>K21</b> Verbal communication techniques: giving and receiving information, matching style to audience, barriers in communication and how to overcome them.	Interview underpinned by a portfolio of evidence
<b>K22</b> Awareness of environmental and sustainability regulations, standards, and guidance: Environmental Protection Act, sustainability, recyclable materials and waste disposal procedures. Climate change agreements. Carbon Reduction Commitment (CRC).	Interview underpinned by a portfolio of evidence
<b>K23</b> The Equality Act: requirements and impact on organisation. Principles of equity, diversity, and inclusion in the workplace and their impact on organisations or stakeholders. Unconscious bias.	Interview underpinned by a portfolio of evidence
<b>K24</b> Human factors: importance and potential consequences, features and limitations of human performance, factors affecting human performance.	Knowledge test
<b>K25</b> Workplace training and development activities: continual professional development.	Interview underpinned by a portfolio of evidence
<b>K26</b> Quality assurance principles and practice.	Interview underpinned by a portfolio of evidence
<b>K27</b> Team working principles: team integration, collaborative team working.	Interview underpinned by a portfolio of evidence
SKILL	ASSESSMENT METHODS
<b>S1</b> Collect and interpret information or data to perform maintenance tasks.	Development competence assessment
<b>S2</b> Record or enter information: paper based or electronic. For example, job sheets, risk assessments, equipment service records, test results, handover documents and manufacturers' documentation, asset management records, work sheets, checklists, waste environmental records and any reporting requirements.	Development competence assessment
S3	Development competence assessment

KNOWLEDGE	ASSESSMENT METHODS
Comply with health and safety regulations and procedures. Apply safe systems of work. For example, risk assessments, COSHH, tool control and use of equipment and tools.	
<b>S4</b> Identify problems, collect evidence, analyse evidence, and determine the cause and maintenance activity required.	Interview underpinned by a portfolio of evidence
<b>S5</b> Plan, organise and use resources to complete tasks.	Development competence assessment
<b>S6</b> Follow instructions. For example, manufacturers and maintenance procedures.	Development competence assessment
<b>S7</b> Follow standard operating procedures (SOPs).	Development competence assessment
<b>S8</b> Apply mathematical techniques and engineering principles to solve engineering problems.	Interview underpinned by a portfolio of evidence
<b>S9</b> Apply maintenance methods and practices. For example, remove, refit, replace, repair, systems or components.	Development competence assessment
<b>S10</b> Test and check aircraft equipment or aircraft systems. For example, built in test equipment, flight control systems, line replacement units or items.	Development competence assessment
<b>S11</b> Assess condition of aircraft components and aircraft equipment. Identify action required. For example, visual inspections.	Development competence assessment
<b>S12</b> Select, check, use, store and control tools and equipment. For example, ground support equipment or test equipment.	Development competence assessment
<b>S13</b> Apply good housekeeping, for example, prior to, during and after completion of the activity to the work area.	Development competence assessment

KNOWLEDGE	ASSESSMENT METHODS
<b>S14</b> Use information technology. For example, for document creation, communication, and information management. Comply with GDPR and cyber security.	Interview underpinned by a portfolio of evidence
<b>S15</b> Comply with environmental and sustainability regulations and procedures. Segregate resources for reuse, recycling, and disposal.	Interview underpinned by a portfolio of evidence
<b>S16</b> Communicate with others verbally for example, colleagues and stakeholders.	Interview underpinned by a portfolio of evidence
<b>S17</b> Communicate in writing.	Interview underpinned by a portfolio of evidence
<b>S18</b> Consider the properties and characteristics of aircraft materials and the possibility of damage to aircraft whilst performing the activity. For example, barely visible impact damage.	Interview underpinned by a portfolio of evidence
<b>S19</b> Select aircraft consumables for carrying out maintenance activity.	Development competence assessment
<b>S20</b> Carry out pre-use checks of resources and ensure sufficient supplies of materials and consumables for maintenance activity.	Development competence assessment
<b>S21</b> Carry out and record planned and unplanned learning and development activities.	Interview underpinned by a portfolio of evidence
<b>S22</b> Apply equity, diversity and inclusion policies and procedures.	Interview underpinned by a portfolio of evidence
<b>S23</b> Apply quality assurance procedures. For example, completion of aircraft servicing schedules or aircraft technical logs.	Interview underpinned by a portfolio of evidence
<b>S24</b> Apply team working principles.	Interview underpinned by a portfolio of evidence

BEHAVIOUR	ASSESSMENT METHODS
<b>B1</b> Prioritise health and safety, flight safety and consider human factors.	Interview underpinned by a portfolio of evidence
<b>B2</b> Collaborate within teams, across disciplines and external stakeholders.	Interview underpinned by a portfolio of evidence
<b>B3</b> Respond and adapt to work demands and situations.	Interview underpinned by a portfolio of evidence
<b>B4</b> Committed to continued professional development (CPD) to maintain and enhance competence in their own area of practice.	Interview underpinned by a portfolio of evidence
<b>B5</b> Takes responsibility for their own work.	Interview underpinned by a portfolio of evidence
<b>B6</b> Consider the environment and sustainability.	Interview underpinned by a portfolio of evidence
<b>B7</b> Support a diverse and inclusive culture.	Interview underpinned by a portfolio of evidence

# Mapping of KSBs to grade themes

### **Knowledge test**

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
Knowledge qualification K1 K15 K24	Awareness of health and safety regulations, standards, and guidance - their purpose and impact on role: Control of Substances Hazardous to Health (COSHH), good housekeeping, Health and Safety at work Act, manual handling, Personal Protective Equipment (PPE), risk assessments, Reporting of Injuries, Diseases, and Dangerous Occurrences Regulations (RIDDOR), safe systems of work, types of hazards. (K1) Engineering mathematical techniques and principles: calculations, conversions, graphical expressions, symbols, and formulae. (K15) Human factors: importance and potential consequences, features and limitations of human performance, factors affecting human performance. (K24)	None	None

### **Development competence assessment**

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
Development competence assessment K3 K5 K8 K10 K11 K18 S1 S2 S3 S5 S6 S7 S9 S10 S11 S12 S13 S19 S20	Standard operating procedures (SOPs). What they are and why they are important. (K3) Maintenance activities: approved methods and practices for aircraft and aircraft components. (K5) Principles of aircraft systems. (K8) Preparatory consideration for maintenance activity. (K10)	Collect and interpret information or data to perform maintenance tasks. (S1) Record or enter information: paper based or electronic. For example, job sheets, risk assessments, equipment service records, test results, handover documents and manufacturers' documentation, asset management records, work sheets, checklists, waste environmental records and any reporting requirements. (S2) Comply with health and safety regulations and procedures. Apply safe systems of work. For example, risk assessments, COSHH, tool	None

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KSBS	KNOWLEDGE	SKILLS	BEHAVIOUR
GROUPED BY THEME			
	Tools and equipment: types of tools and equipment, tool control.	control and use of equipment and tools. (S3)	
	Calibrated equipment requirements including calibration certificates. (K11) Documentation requirements: records, electronic or paper. (K18)	Plan, organise and use resources to complete tasks. (S5)	
		(11) Follow instructions. For example, manufacturers and maintenance	
		Follow standard operating procedures (SOPs). (S7)	
		Apply maintenance methods and practices. For example, remove, refit, replace, repair, systems or components. (S9)	
		Test and check aircraft equipment or aircraft systems. For example, built in test equipment, flight control systems, line replacement units or items. (S10)	
		Assess condition of aircraft components and aircraft equipment. Identify action required. For example, visual inspections. (S11)	
		Select, check, use, store and control tools and equipment. For example, ground support equipment or test equipment. (S12)	
		Apply good housekeeping, for example, prior to, during and after completion of the activity to the work area. (S13)	
		Select aircraft consumables for carrying out maintenance activity. (S19)	
		Carry out pre-use checks of resources and ensure sufficient supplies of materials and consumables for maintenance activity. (S20)	

# Interview underpinned by a portfolio of evidence

KSBS	KNOWLEDGE	SKILLS	BEHAVIOUR
GROUPED BY THEME			
Health, safety, environment and sustainability K2 K22 S15 B1 B6	Responsibilities of technician's role including near miss reporting and working at height procedures. (K2) Awareness of environmental and sustainability regulations, standards, and guidance: Environmental Protection Act, sustainability, recyclable materials and waste disposal procedures. Climate change agreements. Carbon Reduction Commitment (CRC). (K22)	Comply with environmental and sustainability regulations and procedures. Segregate resources for reuse, recycling, and disposal. (S15)	Prioritise health and safety, flight safety and consider human factors. (B1) Consider the environment and sustainability. (B6)
Maintenance, installation and repair K4 K6 K9 K12 K13 S18	Engineering maintenance report of occurrences: processes and procedures for reporting and addressing unexpected issues. (K4) Aircraft maintenance strategies and practices: planned, preventative and reactive methods and their frequency. (K6) Properties and characteristics of aircraft materials. (K9) Aircraft maintenance consumables: types of consumables, properties, characteristics, and impact of their use. (K12) Operational considerations and impact of aircraft maintenance on the organisation or operation. (K13)	Consider the properties and characteristics of aircraft materials and the possibility of damage to aircraft whilst performing the activity. For example, barely visible impact damage. (S18)	None
Engineering S8	None	Apply mathematical techniques and engineering principles to solve engineering	None
		problems. (S8)	

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
Problem solving and fault finding K16 S4	Problem solving principles: define the problem, collect evidence, analyse evidence, determine the cause and the maintenance activity. (K16)	Identify problems, collect evidence, analyse evidence, and determine the cause and maintenance activity required. (S4)	None
Digital and information technology K19 K20 S14	Information technology: Management Information Systems (MIS), spreadsheets, presentation, word processing, email, virtual communication. General Data Protection Regulation (GDPR). Cyber security. (K19) Awareness of digital technologies and information systems: connected technologies in the aviation industry. (K20)	Use information technology. For example, for document creation, communication, and information management. Comply with GDPR and cyber security. (S14)	None
Team working K14 K27 S24 B2 B3	Aircraft maintenance environment: interdependencies and function between regulators and different teams, limits of responsibility and autonomy with the associated reporting channels. (K14) Team working principles: team integration, collaborative team working. (K27)	Apply team working principles. (S24)	Collaborate within teams, across disciplines and external stakeholders. (B2) Respond and adapt to work demands and situations. (B3)
Communication K7 K17 K21 S16 S17	Aircraft visuals and symbols in the workplace. (K7) Written communication techniques. Aircraft maintenance engineering terminology. (K17) Verbal communication techniques: giving and receiving information, matching style to audience, barriers in	Communicate with others verbally for example, colleagues and stakeholders. (S16) Communicate in writing. (S17)	None

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
	communication and how to overcome them. (K21)		
Continual professional development K25 S21 B4	Workplace training and development activities: continual professional development. (K25)	Carry out and record planned and unplanned learning and development activities. (S21)	Committed to continued professional development (CPD) to maintain and enhance competence in their own area of practice. (B4)
Quality assurance K26 S23 B5	Quality assurance principles and practice. (K26)	Apply quality assurance procedures. For example, completion of aircraft servicing schedules or aircraft technical logs. (S23)	Takes responsibility for their own work. (B5)
Equity, diversity and inclusion K23 S22 B7	The Equality Act: requirements and impact on organisation. Principles of equity, diversity, and inclusion in the workplace and their impact on organisations or stakeholders. Unconscious bias. (K23)	Apply equity, diversity and inclusion policies and procedures. (S22)	Support a diverse and inclusive culture. (B7)



# End-Point Assessment Plan for The Aircraft Maintenance Technician Apprenticeship (Part-66 Route)

Apprenticeship Reference Number	Apprenticeship Level	Integration
ST1315	3	Regulated qualification

### Contents

Introduction and overview EPA summary table Duration of end-point assessment period EPA gateway Order of assessment methods Part-66 knowledge assessment Part-66 practical assessment Interview underpinned by a portfolio of evidence Grading **Overall EPA grading** Re-sits and re-takes Roles and responsibilities Reasonable adjustments Internal quality assurance Value for money Professional recognition Mapping of KSBs to assessment methods Mapping of KSBs to grade themes

### Introduction and overview

This document explains the requirements for end-point assessment (EPA) for the aircraft maintenance technician (Part-66 route) apprenticeship. This apprenticeship has integrated qualifications which are used for EPA purposes.

The Institute for Apprenticeships and Technical Education (IfATE) have agreed a unique EPA model for those apprenticeships where the UK Civil Aviation Authority (CAA), the regulatory body for aviation within the UK, specifies the qualifying requirements for aircraft maintenance and aircraft airworthiness. This route integrates the UK CAA Part-66 training modules as a route to achieve the apprenticeship. The apprentice must be employed by a currently approved UK Part-145 organisation and complete training with a currently approved UK Part-147 organisation. UK Part-145 and UK Part-147 organisations must abide by the contents of the CAP1814 (Version 3, issued 23rd August 2024) and must have current approval from the regulator (either UK CAA or EASA) and not be subject to any form of suspension. As per the CAP1814 requirements, UK Part-147 organisations must include in their Maintenance Training Organisations Exposition (MTOE), a clear statement of acknowledged responsibility towards stakeholders. A copy of this statement and a copy of the UK Part-147 approval certificate (UKCAA Form 11) must be sent to IfATE as part of the application process to be named in the EPA plan.

UK Part-147 organisations will be asked to submit their relevant training specifications and sample assessment materials to IfATE to ensure alignment of mapping against the occupational standard. The organisations below have submitted materials to IfATE and met the required criteria:

- LRTT Limited Ref: UK.147.0046
- The School of Army Aeronautical Engineering (SAAE) Ref: UK.147.0156

The UK Part-147 organisation is responsible for the integrated assessment methods. The end-point assessment organisation (EPAO) must take responsibility for the interview. EPAOs and UK Part-147 organisations must work collaboratively to manage the delivery of the EPA.

Confirmation of the apprentice passing both the Part-66 assessments and the interview, must be passed to the regulator with the application for the UK Part Category A (Cat-A) license in accordance with CAP1814 section 4.4. This can be done by the employer or apprentice, in accordance with company procedures. The UK CAA will consider an application for a UK Part-66 licence once the apprentice has passed End Point Assessment (EPA).

Aircraft maintenance technician apprentices on a regulated (Part-66) route, their employers, Part 147 training providers and other interested parties should read this document.

A full-time aircraft maintenance technician (Part-66 route) apprentice typically spends 36 months onprogramme (this means in training before the gateway). The apprentice must spend at least 12 months on-programme and complete the required amount of off-the-job training in line with the apprenticeship funding rules.

The apprentice must complete all their training and meet the gateway requirements before starting their EPA. The EPA will assess occupational competence.

An approved EPAO must conduct the EPA for this apprenticeship. Employers must work with the training provider to select an approved EPAO from the apprenticeship providers and assessment register (APAR). The integrated assessment methods must be conducted in line with the conditions set by the regulator.

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This EPA should then be completed within an EPA period lasting typically 3 months. This EPA has 3 assessment methods, including the integrated assessment methods.

Occupational competence is outlined by the EPA grade descriptors. The integrated assessment methods must be marked in line with the conditions set by the regulator. The EPA outcome is determined by the EPAO. The EPAO must combine the outcomes of integrated and non-integrated assessment methods to determine the apprentice's overall grade.

The grades available for each assessment method are below.

Assessment method 1 - Part-66 knowledge assessment:

- fail
- pass

Assessment method 2 - Part-66 practical assessment:

- fail
- pass

Assessment method 3 - interview underpinned by a portfolio of evidence:

- fail
- pass
- distinction

The result from each assessment method is combined to decide the overall apprenticeship grade. The following grades are available for the apprenticeship:

- fail
- pass
- distinction

### **EPA** summary table

On-programme - typically 36 months	<ul> <li>The apprentice must:</li> <li>complete training to develop the knowledge, skills and behaviours (KSBs) outlined in this apprenticeship's standard</li> <li>complete training towards English and mathematics qualifications in line with the apprenticeship funding rules</li> <li>compile a portfolio of evidence</li> <li>complete training towards the qualification listed in the aircraft maintenance technician (Part-66 route) apprenticeship standard</li> <li>The qualifications required are:</li> </ul>
	UK Part-66 training. This must include EASA or UK CAA (or both EASA and UK CAA) Part-66 modules and practical experience.

End-point assessment gateway	The apprentice's employer must be content that the apprentice is occupationally competent to complete the apprenticeship.
	The apprentice must:
	<ul> <li>confirm they are ready to take the EPA</li> </ul>
	<ul> <li>have achieved English and mathematics qualifications in line with the apprenticeship funding rules</li> <li>have passed UK Part-66 training. This must include EASA or UK CAA (or both EASA and UK CAA) Part-66 modules and practical experience, as detailed in the Commission Regulation (EU) No 1321/2014 as retained in (and amended by) UK law, Annex III (Part 66) and Annex IV (Part 147).</li> </ul>
	For the interview, which is underpinned by a portfolio of evidence, the apprentice must submit a portfolio of evidence.
	Gateway evidence must be submitted to the EPAO, along with any organisation specific policies and procedures requested by the EPAO.
End-point assessment - typically 3 months	The grades available for each assessment method are below Part-66 knowledge assessment: • fail • pass Part-66 practical assessment: • fail • pass Interview underpinned by a portfolio of evidence: • fail • pass • distinction Overall EPA and apprenticeship can be graded: • fail • pass • distinction
Professional recognition	<ul> <li>This apprenticeship aligns with: <ul> <li>Royal Aeronautical Society for Engineering Technician (EngTech)</li> </ul> </li> <li>This apprenticeship aligns with: <ul> <li>Institution of Engineering and Technology (IET) for Engineering Technician (EngTech)</li> </ul> </li> <li>This apprenticeship aligns with: <ul> <li>Institution of Mechanical Engineers (IMechE) for Engineering Technician (EngTech)</li> </ul> </li> </ul>
Re-sits and re-takes	The details for re-sits and re-takes are below: • Re-take and re-sit grade cap: pass • Re-sit timeframe: typically 3 months • Re-take timeframe: typically 6 months

### Duration of end-point assessment period

The EPA is taken in the EPA period. The EPA period starts when the EPAO confirms the gateway requirements have been met and is typically 3 months. The EPAO should confirm the gateway requirements have been met and start the EPA as quickly as possible.

### **EPA** gateway

The apprentice's employer must be content that the apprentice is occupationally competent. That is, they are deemed to be working at or above the level set out in the occupational standard and ready to undertake an EPA. The employer may take advice from the apprentice's training provider, but the employer must make the decision. The apprentice will then enter the gateway.

The apprentice must meet the gateway requirements before starting their EPA.

They must:

- confirm they are ready to take the EPA
- have achieved English and mathematics qualifications in line with the apprenticeship funding rules
- have passed UK Part-66 training. This must include EASA or UK CAA (or both EASA and UK CAA) Part-66 modules and practical experience.
- submit a portfolio of evidence for the interview underpinned by a portfolio of evidence.

#### Portfolio of evidence requirements:

The apprentice must compile a portfolio of evidence during the on-programme period of the apprenticeship. It should only contain evidence related to the KSBs that will be assessed by the interview. It will typically contain 10 discrete pieces of evidence. Evidence must be mapped against the KSBs. Evidence may be used to demonstrate more than one KSB; a qualitative as opposed to quantitative approach is suggested.

Evidence sources may include:

- workplace documentation and records, for example:
  - workplace policies and procedures
  - extracts from maintenance logs or technician's approved logbook
  - witness statements 0
  - annotated photographs
- video clips with a maximum total duration 10 minutes; the apprentice must be in view and identifiable

This is not a definitive list; other evidence sources can be included.

The portfolio of evidence should not include reflective accounts or any methods of self-assessment. Any employer contributions should focus on direct observation of performance, for example, witness statements, rather than opinions. The evidence provided should be valid and attributable to the apprentice; the portfolio of evidence should contain a statement from the employer and apprentice confirming this.

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The EPAO should not assess the portfolio of evidence directly as it underpins the interview. The independent assessor should review the portfolio of evidence to prepare questions for the interview. They are not required to provide feedback after this review.

The apprentice must submit the gateway evidence to their EPAO, including any organisation specific policies and procedures requested by the EPAO.

### **Order of assessment methods**

The Part-66 knowledge assessment and the Part-66 practical assessment must be passed and completed prior to the interview taking place.

### Part-66 knowledge assessment

This is an integrated assessment method. The knowledge statements aligned to this integrated assessment method will be assessed and graded in line with the requirements of the regulator and contribute to the overall outcome of the apprenticeship and the qualification.

#### **Overview**

In the UK Part-66 knowledge assessment, an independent assessor completes the assessment of the apprentice in line with the requirements of the regulation. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method. Please note that for all Part-66 assessments the independent assessor can include the examinations officer or manager Form 4 holder.

#### Rationale

This assessment method is being used because:

- it assesses KSBs holistically and objectively
- it allows for the assessment of KSBs that do not occur on a predictable or regular basis
- it allows for assessment of responses where there are a range of potential answers
- it reduces the assessment burden on the apprentice

#### **Delivery**

The delivery of the Part-66 knowledge assessment must align with the conditions set out by the UK CAA or equivalent regulator (EASA) for the integrated qualification. The knowledge can be tested using, for example, essays, multiple-choice tests or any other method of testing as determined by the regulator. The apprentice must be given notice of the date, time and type of any assessments.

#### **Test administration**

The administration of the knowledge tests assessed by the integrated Part-66 qualifications must align to the conditions set by the regulator. The tests for the modules will either be set, marked and graded by the regulator, or the regulator approved UK Part-147 organisations to devise their own assessments.

Assessments that are taken in a controlled environment must be taken in the presence of an invigilator who is the responsibility of the approved UK Part-147 organisation. The UK Part-147 organisation must have an invigilation policy setting out how the test must be conducted. It must state the ratio of apprentices to invigilators for the setting and allow the test to take place in a secure way.

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The UK Part-147 organisation is responsible for the security of the test including the arrangements for on-line testing. The UK Part-147 organisation must ensure that their security arrangements maintain the validity and reliability of the test. The UK Part-147 organisation must verify the apprentice's identity and ensure invigilation of the apprentice.

#### Marking

The responsibility for the marking of the assessments must align with the conditions set by the regulator. A marking scheme must be produced and followed. Marking by computer is allowed where question types support this, for example multiple-choice tests. The UK Part-147 organisation is responsible for overseeing the marking, standardisation and moderation of the test. To ensure marking judgements are fair and accurate, and uphold the principles of the EPA, the marking of all integrated or parts of the integrated assessments, must be marked or graded by someone independent of the apprentice.

#### **Assessment location**

Where the assessment is taken in a controlled and invigilated environment, this must be a quiet room, free from distractions and influence.

This assessment method cannot be taken remotely in line with the regulator's requirements.

#### **Question and resource development**

The UK Part-147 organisation must develop a purpose-built assessment specification and question bank. The UK Part-147 organisation should maintain the security and confidentiality of assessment materials. The assessment specification and question bank must be reviewed to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The UK Part-147 organisation must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this. The UK Part-147 organisation must ensure that the apprentice has a different set of questions in the case of re-sits or re-takes, as defined in the regulation.

The UK Part-147 organisation must produce the following materials to support the assessment:

- administration materials
- moderation and standardisation materials
- guidance materials, including grading guidance
- specification
- question bank
- live tests and mark schemes

The UK Part-147 organisation must ensure that the materials are subject to quality assurance procedures including standardisation and moderation.

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### Part-66 practical assessment

This is an integrated assessment method. The KSBs aligned to this integrated assessment method will be assessed and graded in line with the requirements of the regulator and contribute to the overall outcome of the apprenticeship and the qualification.

#### **Overview**

In the UK Part-66 practical assessment, an independent assessor completes the assessment of the apprentice in line with the requirements of the qualification. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method.

#### Rationale

This assessment method is being used because:

- this is a practical role it can assess KSBs holistically
- it is cost effective as tasks assessed during the Part-66 training (both in the UK Part-147 and the UK Part-145) contribute towards to final assessment
- it reduces the assessment burden for apprentices

### Delivery

The delivery of the Part-66 practical assessment must align with the conditions set out by the UK CAA or equivalent regulator (EASA) for the integrated qualification.

The UK Part-147 organisation must give the apprentice notice of the Part-66 practical assessment. Where the UK Part-147 organisation delivers the assessment, they must manage invigilation of the apprentice during the assessment to maintain security of the EPA, in line with their malpractice policy. This includes breaks and moving between locations.

The apprentice must have the format and timescales of the practical assessment explained to them before the assessment starts. Any unannounced practical task will be assessed by direct observation and augmented with technical questions.

The independent assessor must ask technical questions in line with the aligned KSBs and Part-66 requirements. Follow-up questions are allowed where clarification is required.

To ensure marking judgements are fair and accurate, and uphold the principles of the EPA, the marking of all integrated or parts of the integrated assessments, must be marked or graded by someone independent of the apprentice.

Where UK Part-147 organisation devised assessments are used, either in the UK Part-147 or the UK Part-145 environments, the UK Part-147 organisation is responsible for invigilation in controlled environments including having an invigilation policy for practical assessments, and for the security of any such assessments. Where UK Part-147 organisation devised assessments are used, the marking and grading must align to the conditions set by the regulator.

The independent assessor must make the grading decision. The independent assessor must assess the observation and responses to questions holistically when deciding the grade.

The independent assessor must keep accurate records of the assessment. They must record:

- the tasks observed and therefore the KSBs observed
- the apprentice's answers to questions
- the KSBs demonstrated in answers to questions
- the grade achieved

#### **Assessment location**

The Part-66 practical assessment must take place in both the UK Part-147 organisation, to ensure safety competence, and in the apprentice's normal place of work for example, their employer's premises or a customer's premises. Equipment and resources needed for the observation must be confirmed to be available by the UK Part-147 organisation, who can liaise with the employer to provide these. They must be in good and safe working condition.

Questioning that occurs after the observation should take place in a suitable environment, for example a quiet room, free from distractions and influence.

#### **Question and resource development**

The UK Part-147 organisation must develop a purpose-built assessment specification and technical question bank. It is recommended this is done in consultation with employers or subject matter experts for this occupation. The UK Part-147 organisation should maintain the security and confidentiality of these practical knowledge questions and supporting material when consulting with employers. The assessment specification and question bank must be reviewed to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The UK Part-147 organisation must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.

The UK Part-147 organisation must ensure that apprentice has a different set of questions in the case of re-sits or re-takes, and must produce the following materials to support the test:

- administration materials
- moderation and standardisation materials
- guidance materials
- grading guidance
- specification
- live tests and mark schemes
- question bank

The UK Part-147 organisation must ensure that the practical assessment materials are subject to quality assurance procedures including standardisation and moderation.

### Interview underpinned by a portfolio of evidence

#### **Overview**

In the interview, an independent assessor asks the apprentice questions relevant to the KSBs in this assessment method and the submitted portfolio of evidence. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method. The apprentice can refer to and illustrate their answers with evidence from their portfolio of evidence.

#### Rationale

This assessment method is being used because:

- it assesses KSBs holistically and objectively
- it allows for the assessment of KSBs that do not occur on a predictable or regular basis
- it allows for assessment of responses where there are a range of potential answers
- it can be conducted remotely, potentially reducing cost

#### Delivery

The interview must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade. An independent assessor must conduct and assess the interview. The purpose is to assess the apprentice's competence against the following themes:

- health, safety, environment and sustainability
- maintenance, installation and repair
- problem solving and fault finding
- digital and information technology
- team working
- communication
- continual professional development
- quality assurance
- equity, diversity and inclusion

The EPAO must give an apprentice 2 weeks' notice of the interview.

The independent assessor must have at least 2 weeks to review the supporting documentation.

The apprentice must have access to their portfolio of evidence during the interview. The apprentice can refer to and illustrate their answers with evidence from their portfolio of evidence however, the portfolio of evidence is not directly assessed.

The interview must last for 60 minutes. The independent assessor can increase the time of the interview by up to 10%. This time is to allow the apprentice to respond to a question if necessary. The independent assessor must ask at least 6 questions. The independent assessor must use the questions from the EPAO's question bank or create their own questions in line with the EPAO's training. Follow-up questions are allowed where clarification is required.

The apprentice may choose to end the assessment method early. The apprentice must be confident they have demonstrated competence against the assessment requirements for the assessment

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method. The independent assessor or EPAO must ensure the apprentice is fully aware of all assessment requirements.

The independent assessor or EPAO cannot suggest or choose to end the assessment methods early, unless in an emergency. The EPAO is responsible for ensuring the apprentice understands the implications of ending an assessment early if they choose to do so. The independent assessor may suggest the assessment continues. The independent assessor must document the apprentice's request to end the assessment early.

The independent assessor must make the grading decision. The independent assessor must keep accurate records of the assessment. They must record:

- the questions asked
- the apprentice's answers to questions
- the KSBs demonstrated in answers to questions
- the grade achieved

#### **Assessment location**

The interview must take place in a suitable venue selected by the EPAO for example, the EPAO's or employer's premises.

The interview can be conducted by video conferencing. The EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided. The interview should take place in a quiet room, free from distractions and influence.

#### **Question and resource development**

The EPAO must develop a purpose-built assessment specification and question bank. It is recommended this is done in consultation with employers of this occupation. The EPAO must maintain the security and confidentiality of EPA materials when consulting with employers. The assessment specification and question bank must be reviewed at least once a year to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The EPAO must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.

The EPAO must ensure that the apprentice has a different set of questions in the case of re-sits or retakes.

The EPAO must produce the following materials to support the interview underpinned by a portfolio of evidence:

- independent assessor assessment materials which include:
  - o training materials
  - o administration materials
  - o moderation and standardisation materials
  - o guidance materials
  - o grading guidance
  - question bank
- EPA guidance for the apprentice and the employer

The EPAO must ensure that the EPA materials are subject to quality assurance procedures including standardisation and moderation.

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### Grading

### Part-66 knowledge assessment

Fail - does not meet pass criteria

THEME KSBS	PASS A PASS FOR THIS ASSESSMENT METHOD WILL BE ACHIEVED AS DETAILED BELOW.
Part-66 knowledge assessment K1 K6 K8 K9 K15 K24	The apprentice will be assessed in line with the conditions set by the regulator for the Part-66 qualification. In order to pass, the apprentice must achieve the requirements of the pass criteria of the integrated qualification. It must be clear in the marking criteria which grade boundary for the integrated assessment method represents a pass grade for the EPA.

### Part-66 practical assessment

#### Fail - does not meet pass criteria

THEME KSBS	PASS A PASS FOR THIS ASSESSMENT METHOD WILL BE ACHIEVED AS DETAILED BELOW.
Part-66 practical assessment K5 K10 K11 K12 K17 K18 S1 S2 S3 S5 S6 S8 S9 S10 S11 S12 S13 S17 S18 S19 S20 B1	The apprentice will be assessed in line with the conditions set by the regulator for the Part-66 qualification. In order to pass, the apprentice must achieve the requirements of the pass criteria of the integrated qualification. It must be clear in the marking criteria which grade boundary for the integrated assessment method represents a pass grade for the EPA.

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### Interview underpinned by a portfolio of evidence

Fail - does not meet pass criteria

Fail - does not meet pass criteria				
THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS		
Health and safety, sustainability, environment and operations K2 K13 K14 K22 S15 B6	Describes how they comply with environmental and sustainability regulations and procedures and consider the environment and sustainability through the efficient use of resources. Describes how they identify and segregate resources for reuse, recycling and disposal in line with company procedures. (K22, S15, B6) Describes the responsibilities of their role including near miss	Explains how following their company's procedures reduces the impact on the environment. (K22, S15)		
	reporting and working at height procedures. (K2) Describes the aircraft maintenance environment and the operational considerations and impact of aircraft maintenance on the organisation. (K13, K14)			
Maintenance, installation and repair K3 K4 S7	Explains the engineering maintenance processes and procedures for reporting and addressing unexpected issues. (K4) Explains how they follow standard operating procedures to complete work tasks. (K3, S7)	None.		
Problem solving and fault finding K16 S4	Describes the problem solving techniques they use to identify a problem, how they collect and analyse evidence and determine the cause, and maintenance activity required to rectify the problem. (K16, S4)	Describes the problems solving techniques they used to identify the underlying causes and solutions to complex problems for example, multiple causes. (K16, S4)		

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
Digital and information technology K19 K20 S14	Describes how they use information technology in work tasks in compliance with GDPR and cyber security requirements. (K19, S14) Explains digital technologies and information systems and connected technologies used in the industry. (K20)	None.
Team working K27 S24 B2 B3	Describes how they apply team working principles to meet their team's work goals and how they respond and adapt to work demands and situations. (K27, S24, B2, B3)	None.
Communication K7 K21 S16	Describes aircraft visuals and symbols used in the workplace. (K7) Describes how they use verbal communication techniques suitable for the context, overcoming barriers and adapting style and use of terminology to suit the audience. (K21, S16)	Describes when they have given advice and guidance during a verbal technical handover. (K21, S16)
Continual professional development K25 S21 B4	Outlines the planned and unplanned learning and development activities they have carried out and shows a commitment to future continued professional development to maintain and enhance competence. (K25, S21, B4)	None.
Quality assurance K26 S23 B5	Describes how they take responsibility for their work when applying quality assurance procedures for example completion of aircraft servicing	None.

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
	schedules and aircraft technical logs, in line with company requirements. (K26, S23, B5)	
Equity, diversity and inclusion K23 S22 B7	Describes how they apply equity, diversity and inclusion policies to support a diverse and inclusive culture in the workplace, taking account of unconscious bias. (K23, S22, B7)	Explains the benefits of supporting a diverse and inclusive culture for the business. (K23, S22)

### **Overall EPA grading**

Performance in the EPA determines the apprenticeship grade of:

ofail○passodistinction

An independent assessor must grade the interview in line with this EPA plan.

The EPAO must combine the individual assessment method grades to determine the overall EPA grade.

If the apprentice fails one or more assessment methods, they will be awarded an overall fail.

To achieve an overall pass, the apprentice must achieve at least a pass in all the assessment methods. To achieve a distinction, the apprentice must achieve a pass in the Part-66 knowledge assessment and the Part-66 practical assessment and a distinction in the interview underpinned by a portfolio of evidence.

UK Part-147 organisations and regulators should make clear in their marking criteria which grade boundary for the integrated assessment method represents a pass grade for the EPA. This pass grade must reflect demonstration of occupational competence in the KSBs.

Grades from individual assessment methods must be combined in the following way to determine the grade of the EPA overall.

PART-66 KNOWLEDGE ASSESSMENT	PART-66 PRACTICAL ASSESSMENT	INTERVIEW UNDERPINNED BY A PORTFOLIO OF EVIDENCE	OVERALL GRADING
Fail	Any grade	Any grade	Fail
Any grade	Fail	Any grade	Fail
Any grade	Any grade	Fail	Fail
Pass	Pass	Pass	Pass
Pass	Pass	Distinction	Distinction

### **Re-sits and re-takes**

If the apprentice fails one assessment method or more, they can take a re-sit or a re-take at their employer's discretion. The apprentice's employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, whereas a re-take does. The apprentice should have a supportive action plan to prepare for a re-sit or a re-take.

Re-sits and re-takes of the Part 66 modules must be in line with the regulator's requirements.

The employer and the EPAO should agree the timescale for a re-sit or re-take. A re-sit is typically taken within 3 months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 6 months of the EPA outcome notification. Failed assessment methods must be re-sat or re-taken within a 6-month period from the EPA outcome notification, otherwise the entire EPA will need to be re-sat or re-taken in full.

Re-sits and re-takes are not offered to an apprentice wishing to move from pass to a higher grade.

The apprentice will get a maximum EPA grade of pass for a re-sit or re-take, unless the EPAO determines there are exceptional circumstances.

### **Roles and responsibilities**

ROLES	RESPONSIBILITIES	
Apprentice	As a minimum, the apprentice should:	
	<ul> <li>complete on-programme training to meet the KSBs as outlined in the apprenticeship standard for a minimum of 12 months</li> </ul>	
	<ul> <li>complete the required amount of off-the-job training specified by the apprenticeship funding rules and as arranged by the employer and training provider</li> </ul>	
	<ul> <li>understand the purpose and importance of EPA</li> </ul>	
	<ul> <li>prepare for and undertake the EPA including meeting all gateway requirements</li> </ul>	
	<ul> <li>ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan</li> </ul>	
Employer	As a minimum, the apprentice's employer must:	
	<ul> <li>be registered as a UK Part-145 organisation</li> </ul>	
	• select the EPAO and UK Part-147 training organisation	
	<ul> <li>work with the UK Part-147 organisation to support the apprentice in the workplace and to provide the opportunities for the apprentice to develop the KSBs</li> </ul>	
	<ul> <li>arrange and support off-the-job training to be undertaken by the apprentice</li> </ul>	
	<ul> <li>decide when the apprentice is working at or above the apprenticeship standard and is ready for EPA</li> </ul>	
	<ul> <li>ensure the apprentice is prepared for the EPA</li> </ul>	
	<ul> <li>ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan</li> </ul>	
	<ul> <li>confirm the apprentice has passed the Part-66 training</li> </ul>	
	<ul> <li>confirm arrangements with the EPAO for the EPA (who, when, where) in a timely manner</li> </ul>	
	<ul> <li>provide the EPAO with access to any employer-specific documentation as required for example, company policies</li> </ul>	
	<ul> <li>ensure that the EPA is scheduled with the EPAO for a date and time which allows appropriate opportunity for the apprentice to meet the KSBs</li> </ul>	
	<ul> <li>ensure the apprentice is given sufficient time away from regular duties to prepare for, and complete the EPA</li> </ul>	

ROLES	RESPONSIBILITIES	
	<ul> <li>ensure that any required supervision during the EPA period, as stated within this EPA plan, is in place</li> </ul>	
	<ul> <li>ensure the apprentice has access to the resources used to fulfil their role and carry out the EPA for workplace based assessments</li> </ul>	
	<ul> <li>remain independent from the delivery of the EPA</li> </ul>	
	<ul> <li>pass the certificate to the apprentice upon receipt</li> </ul>	
EPAO	As a minimum, the EPAO must:	
	<ul> <li>conform to the requirements of this EPA plan and deliver its requirements in a timely manner</li> </ul>	
	<ul> <li>conform to the requirements of the APAR</li> </ul>	
	<ul> <li>conform to the requirements of the external quality assurance provider (EQAP)</li> </ul>	
	<ul> <li>understand the apprenticeship including the occupational standard, EPA plan and funding</li> </ul>	
	<ul> <li>make all necessary contractual arrangements including agreeing the price of the EPA</li> </ul>	
	<ul> <li>have third party arrangements in place with the training provider to:</li> </ul>	
	<ul> <li>work collaboratively to manage the delivery of the EPA, for example, get confirmation assessment methods 1 and 2 have been met and evidence of such is available</li> </ul>	
	<ul> <li>ensure the EPA is arranged to meet the scheduling requirements set out in this EPA plan</li> </ul>	
	<ul> <li>to share the outcomes of the assessment methods in a timely manner.</li> </ul>	
	<ul> <li>develop and produce assessment materials including specifications and marking materials (for example mark schemes, practice materials, training material) for the non-integrated assessment methods</li> </ul>	
	<ul> <li>maintain and apply a policy for the declaration and management of conflict of interests and independence. This must ensure, as a minimum, there is no personal benefit or detriment for those delivering the EPA or from the result of an assessment. It must cover:</li> </ul>	
	<ul> <li>apprentices</li> </ul>	

ROLES	RESPONSIBILITIES	
	<ul> <li>employers</li> </ul>	
	<ul> <li>independent assessors</li> </ul>	
	<ul> <li>any other roles involved in delivery or grading of the EPA</li> </ul>	
	<ul> <li>have quality assurance systems and procedures that ensure fair, reliable and consistent assessment and maintain records of internal quality assurance (IQA) activity for external quality assurance (EQA) purposes</li> </ul>	
	<ul> <li>appoint independent, competent, and suitably qualified assessors in line with the requirements of this EPA plan</li> </ul>	
	<ul> <li>appoint administrators, invigilators and any other roles where required to facilitate the EPA</li> </ul>	
	<ul> <li>deliver induction, initial and on-going training for all their independent assessors and any other roles involved in the delivery or grading of the EPA as specified within this EPA plan. This should include how to record the rationale and evidence for grading decisions where required</li> <li>conduct standardisation with all their independent assessors before allowing them to deliver an EPA, when the EPA is updated, and at least once a year</li> <li>conduct moderation across all of their independent assessors' decisions once EPAs have started according to a sampling plan, with associated risk rating of independent assessors</li> <li>monitor the performance of all their independent assessors and provide additional training where necessary</li> </ul>	
	<ul> <li>develop and provide assessment recording documentation to ensure a clear and auditable process is in place for providing assessment decisions and feedback to all relevant stakeholders</li> </ul>	
	<ul> <li>maintain and apply a policy for reasonable adjustments and special considerations for apprentices</li> </ul>	
	<ul> <li>use language in the development and delivery of the EPA that is appropriate to the level of the apprenticeship</li> </ul>	
	<ul> <li>arrange for the non-integrated assessment methods to take place in a timely manner, in consultation with the employer</li> </ul>	
	<ul> <li>deliver the non-integrated assessment methods in line with this EPA plan</li> </ul>	

ROLES	RESPONSIBILITIES	
	<ul> <li>provide information, advice, and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA</li> </ul>	
	<ul> <li>where the EPA plan permits assessment away from the workplace, ensure that the apprentice has access to the required resources and liaise with the employer to agree this if necessary</li> </ul>	
	<ul> <li>confirm the gateway requirements have been met before they start the EPA for an apprentice</li> </ul>	
	<ul> <li>confirm the overall grade awarded including the outcomes of the integrated and non-integrated assessment methods in line with this EPA plan</li> </ul>	
	<ul> <li>host the EPA or make suitable alternative arrangements</li> </ul>	
	<ul> <li>maintain the security of the EPA including, but not limited to, verifying the identity of the apprentice, invigilation and security of materials</li> </ul>	
	<ul> <li>where the EPA plan permits assessment away from the workplace, ensure that the apprentice has access to the required resources and liaise with the employer to agree this if necessary</li> </ul>	
	<ul> <li>confirm overall grade awarded</li> </ul>	
	<ul> <li>maintain and apply a policy for conducting appeals</li> </ul>	
	<ul> <li>arrange the certification of the apprenticeship</li> </ul>	
Independent assessor	As a minimum, an independent assessor must:	
	<ul> <li>be independent, with no conflict of interest with the apprentice, their employer or training provider, specifically, they must not receive a personal benefit or detriment from the result of the assessment</li> </ul>	
	<ul> <li>have, maintain and be able to evidence up-to-date knowledge and expertise of the occupation</li> </ul>	
	<ul> <li>have the competence to assess the EPA and meet the requirements of the IQA section of this EPA plan</li> </ul>	
	<ul> <li>understand the apprenticeship's occupational standard and EPA plan</li> </ul>	
	<ul> <li>attend induction and standardisation events before they conduct an EPA for the first time, when the EPA is updated, and at least once a year</li> </ul>	
	<ul> <li>use language in the delivery of the EPA that is appropriate to the level of the apprenticeship</li> </ul>	

ROLES	RESPONSIBILITIES
	<ul> <li>work with other personnel, where used, in the preparation and delivery of assessment methods</li> </ul>
	<ul> <li>conduct the EPA to assess the apprentice against the KSBs and in line with the EPA plan</li> </ul>
	<ul> <li>make final grading decisions in line with this EPA plan</li> </ul>
	<ul> <li>record and report assessment outcome decisions</li> </ul>
	<ul> <li>comply with the IQA requirements of the EPAO</li> </ul>
	<ul> <li>comply with external quality assurance (EQA) requirements</li> </ul>
UK Part-147 organisations	<ul> <li>As a minimum, the UK Part-147 Organisation must: <ul> <li>conform to the requirements of this EPA plan and deliver its requirements in a timely manner</li> <li>conform to the requirements of any regulators for the regulated training and assessment</li> <li>understand the apprenticeship including the occupational standard, EPA plan and funding</li> <li>confirm that they agree to the conditions of integration for the integrated assessment methods, as outlined in the EPA plan</li> <li>make all necessary contractual arrangements</li> <li>have third party arrangements in place with the EPAO to:</li> <li>work collaboratively to manage the delivery of the EPA where appropriate</li> <li>ensure the EPA is arranged to meet the scheduling requirements set out in this EPA plan</li> <li>share the outcomes of the integrated assessment methods in a timely manner and have supporting evidence if required</li> <li>develop and produce assessment materials including specifications and marking materials (for example mark schemes, practice materials, training material) for the integrated assessment methods</li> <li>maintain and apply a policy for the declaration and management of conflict of interests and independence relating to the EPA of an apprentice (including by way of moderation).</li> <li>have quality assurance systems and procedures that ensure fair, reliable and consistent assessment and maintain records of internal quality assurance (IQA) activity</li> <li>source a suitably qualified and independent person who must administer all aspects of the integrated assessment methods. This means that they must not:</li> </ul> </li> </ul>

ROLES	RESPONSIBILITIES				
	<ul> <li>have been involved in the management or training of the apprentice</li> <li>have a vested interest in the outcome</li> <li>Where this is not possible, by exception, a person who has delivered the assessed content may administer the assessment. This is providing they are not the sole administrator.</li> </ul>				
	<ul> <li>source a suitably qualified and independent person who must grade all aspects of the integrated assessment method. The person making the grading judgement must not be employed by:</li> </ul>				
	$_{\circ}$ the same organisation as the apprentice				
	In rare circumstances, training provider staff may mark the integrated assessment method. This will only be to mark tests where there is a right or wrong answer, for example, multiple-choice tests. Strict arrangements must be in place for monitoring, moderation and quality assurance. • develop and produce assessment materials including specifications and marking materials (for example mark schemes, practice materials, training material) for the integrated assessment methods • deliver induction, initial and on-going training for all their independent assessors and any other roles involved in the administration or grading of the integrated assessment method s the EPA as specified within this EPA plan. This should include how to record the rationale and evidence for grading decisions where required • provide information, advice, and guidance documentation to enable apprentices, employers and training providers to prepare for the integrated				
	assessment method • arrange for the integrated assessment methods of the EPA to take place in a timely manner, in consultation with the employer				
	<ul> <li>maintain the security of the integrated assessment methods including, but not limited to, verifying the identity of the apprentice, invigilation and security of materials</li> </ul>				
	<ul> <li>must externally set and externally mark the integrated assessment method</li> </ul>				
	<ul> <li>maintain and apply a policy for reasonable adjustment and special considerations for apprentices</li> <li>deliver the integrated assessment methods in line with this EPA plan</li> <li>conduct moderation of all their independent assessors' decisions for integrated assessment methods</li> <li>monitor the performance of all their independent</li> </ul>				
	assessors and provide re-training where necessary				

ROLES	RESPONSIBILITIES		
	<ul> <li>an auditable process is in place for providing assessment decisions and feedback to all relevant stakeholders</li> <li>maintain and apply a policy for conducting appeals</li> <li>continue to follow the rules and regulations applicable to the qualification, for example, those of Ofqual and industry regulators.</li> <li>must give IfATE at least 6 months' notice of any changes to mandated qualifications</li> <li>Where UK Part-147 devised assessment is used, it must:</li> <li>comply with UK CAA, or EASA requirements</li> </ul>		
Training provider	As a minimum, the training provider must:		
	<ul> <li>conform to the requirements of the apprenticeship providers and assessment register</li> </ul>		
	<ul> <li>ensure procedures are in place to mitigate against any conflict of interest</li> </ul>		
	<ul> <li>work with the employer and support the apprentice during the off-the-job training to provide the opportunities to develop the KSBs as outlined in the occupational standard</li> </ul>		
	<ul> <li>deliver training to the apprentice as outlined in their apprenticeship agreement</li> </ul>		
	<ul> <li>monitor the apprentice's progress during any training provider led on-programme learning</li> </ul>		
	<ul> <li>ensure the apprentice is prepared for the EPA</li> </ul>		
	<ul> <li>advise the employer, upon request, on the apprentice's readiness for EPA</li> </ul>		
	<ul> <li>ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan</li> </ul>		
	<ul> <li>remain independent from the delivery of the EPA</li> </ul>		

### **Reasonable adjustments**

The EPAO and UK Part-147 organisations must have reasonable adjustments arrangements for the EPA. This should include:

- how an apprentice qualifies for a reasonable adjustment
- what reasonable adjustments may be made

Adjustments must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

#### **Special considerations**

The EPAO and UK Part-147 organisations must have special considerations arrangements for the EPA. This should include:

- how an apprentice qualifies for a special consideration
- what special considerations may be made

Special considerations must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

### Internal quality assurance

Internal quality assurance refers to the strategies, policies and procedures that an EPAO and UK Part-147 organisation must have in place to ensure valid, consistent and reliable EPA decisions.

EPAOs and UK Part-147 organisations for this EPA must adhere to the requirements within the roles and responsibilities table.

EPAOs must also appoint independent assessors who:

 have recent relevant experience of the occupation or sector to at least occupational level 3 gained in the last 3 years or significant experience of the occupation or sector

### Value for money

Affordability of the EPA will be aided by using at least some of the following:

- completing applicable assessment methods online, for example computer-based assessment
- utilising digital remote platforms to conduct applicable assessment methods
- using the employer's premises
- integrating the Part-66 modules as assessment methods

### **Professional recognition**

This apprenticeship aligns with:

• Royal Aeronautical Society for Engineering Technician (EngTech) This apprenticeship aligns with:

• Institution of Engineering and Technology (IET) for Engineering Technician (EngTech) This apprenticeship aligns with:

• Institution of Mechanical Engineers (IMechE) for Engineering Technician (EngTech)

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### Mapping of KSBs to assessment methods

KNOWLEDGE	ASSESSMENT METHODS
K1	AGGEGGMENT METHODS
Awareness of health and safety regulations, standards, and guidance - their purpose and impact on role: Control of Substances Hazardous to Health (COSHH), good housekeeping, Health and Safety at work Act, manual handling, Personal Protective Equipment (PPE), risk assessments, Reporting of Injuries, Diseases, and Dangerous Occurrences Regulations (RIDDOR), safe systems of work, types of hazards.	Part-66 knowledge assessment
<b>K2</b> Responsibilities of technician's role including near miss reporting and working at height procedures.	Interview underpinned by a portfolio of evidence
<b>K3</b> Standard operating procedures (SOPs). What they are and why they are important.	Interview underpinned by a portfolio of evidence
<b>K4</b> Engineering maintenance report of occurrences: processes and procedures for reporting and addressing unexpected issues.	Interview underpinned by a portfolio of evidence
<b>K5</b> Maintenance activities: approved methods and practices for aircraft and aircraft components.	Part-66 practical assessment
<b>K6</b> Aircraft maintenance strategies and practices: planned, preventative and reactive methods and their frequency.	Part-66 knowledge assessment
<b>K7</b> Aircraft visuals and symbols in the workplace.	Interview underpinned by a portfolio of evidence
<b>K8</b> Principles of aircraft systems.	Part-66 knowledge assessment
<b>K9</b> Properties and characteristics of aircraft materials.	Part-66 knowledge assessment
<b>K10</b> Preparatory consideration for maintenance activity.	Part-66 practical assessment

KNOWLEDGE	ASSESSMENT METHODS
<b>K11</b> Tools and equipment: check tool condition and tool control, carriage and storage. Calibrated equipment requirements including calibration certificates.	Part-66 practical assessment
<b>K12</b> Aircraft maintenance consumables: properties, characteristics and impact of their use.	Part-66 practical assessment
<b>K13</b> Operational considerations and impact of aircraft maintenance on the organisation or operation.	Interview underpinned by a portfolio of evidence
<b>K14</b> Aircraft maintenance environment: interdependencies and function between regulators and different teams, limits of responsibility and autonomy with the associated reporting channels.	Interview underpinned by a portfolio of evidence
<b>K15</b> Engineering mathematical techniques and principles: calculations, conversions, graphical expressions, symbols and formulae.	Part-66 knowledge assessment
<b>K16</b> Problem solving principles: define the problem, collect evidence, analyse evidence, determine the cause and the maintenance activity.	Interview underpinned by a portfolio of evidence
<b>K17</b> Written communication techniques. Aircraft maintenance engineering terminology.	Part-66 practical assessment
K18 Documentation requirements: records, electronic or paper.	Part-66 practical assessment
<b>K19</b> Information technology: Management Information Systems (MIS), spreadsheets, presentation, word processing, email, virtual communication. General Data Protection Regulation (GDPR). Cyber security.	Interview underpinned by a portfolio of evidence
<b>K20</b> Awareness of digital technologies and information systems: connected technologies in the aviation industry.	Interview underpinned by a portfolio of evidence

KNOWLEDGE	ASSESSMENT METHODS
<b>K21</b> Verbal communication techniques: giving and receiving information, matching style to audience, barriers in communication and how to overcome them.	Interview underpinned by a portfolio of evidence
<b>K22</b> Awareness of environmental and sustainability regulations, standards and guidance: Environmental Protection Act, sustainability, recyclable materials and waste disposal procedures. Climate change agreements. Carbon Reduction Commitment (CRC).	Interview underpinned by a portfolio of evidence
<b>K23</b> The Equality Act: requirements and impact on organisation. Principles of equity, diversity, and inclusion in the workplace and their impact on organisations or stakeholders. Unconscious bias.	Interview underpinned by a portfolio of evidence
<b>K24</b> Human factors: importance and potential consequences, features and limitations of human performance, factors affecting human performance.	Part-66 knowledge assessment
<b>K25</b> Workplace training and development activities: continual professional development (CPD).	Interview underpinned by a portfolio of evidence
<b>K26</b> Quality assurance principles and practice.	Interview underpinned by a portfolio of evidence
<b>K27</b> Team working principles: team integration, collaborative team working.	Interview underpinned by a portfolio of evidence
SKILL	ASSESSMENT METHODS
S1 Collect and interpret information or data to perform maintenance tasks.	Part-66 practical assessment
<b>S2</b> Record or enter information: paper based or electronic. For example, job sheets, risk assessments, equipment service records, test results, handover documents and manufacturers' documentation, asset management records, work sheets, checklists, waste environmental records and any reporting requirements.	Part-66 practical assessment

KNOWLEDGE	ASSESSMENT METHODS
S3 Comply with health and safety regulations and procedures. Apply safe systems of work. For example, risk assessments, COSHH and tool control and use of equipment and tools.	Part-66 practical assessment
<b>S4</b> Identify problems, collect evidence, analyse evidence and determine the cause and maintenance activity required.	Interview underpinned by a portfolio of evidence
<b>S5</b> Plan, organise and use resources to complete tasks.	Part-66 practical assessment
<b>S6</b> Follow instructions. For example, manufacturers' and maintenance procedures.	Part-66 practical assessment
<b>S7</b> Follow standard operating procedures (SOPs).	Interview underpinned by a portfolio of evidence
<b>S8</b> Apply mathematical techniques and engineering principles to solve engineering problems.	Part-66 practical assessment
<b>S9</b> Apply maintenance methods and practices. For example, remove, refit, replace, repair, systems or components.	Part-66 practical assessment
<b>S10</b> Test and check aircraft equipment or aircraft systems. For example, built in test equipment, flight control systems, line replacement units or items.	Part-66 practical assessment
<b>S11</b> Assess condition of aircraft components and aircraft equipment. Identify action required. For example, visual inspections.	Part-66 practical assessment
<b>S12</b> Select, check, use, store and control tools and equipment. For example, ground support equipment, test equipment.	Part-66 practical assessment
<b>S13</b> Apply good housekeeping, for example, prior to, during and after completion of the activity to the work area.	Part-66 practical assessment

KNOWLEDGE	ASSESSMENT METHODS
	ASSESSMENT METHODS
<b>S14</b> Use information technology. For example, for document creation, communication, and information management. Comply with GDPR and cyber security.	Interview underpinned by a portfolio of evidence
<b>S15</b> Comply with environmental and sustainability regulations and procedures. Segregate resources for reuse, recycling and disposal.	Interview underpinned by a portfolio of evidence
<b>S16</b> Communicate with others verbally for example, colleagues and stakeholders.	Interview underpinned by a portfolio of evidence
<b>S17</b> Communicate in writing.	Part-66 practical assessment
<b>S18</b> Consider the properties and characteristics of aircraft materials and the possibility of damage to aircraft whilst performing the activity. For example, barely visible impact damage.	Part-66 practical assessment
<b>S19</b> Select aircraft consumables for carrying out maintenance activity.	Part-66 practical assessment
<b>S20</b> Carry out pre-use checks of resources and ensure sufficient supplies of materials and consumables for maintenance activity.	Part-66 practical assessment
<b>S21</b> Carry out and record planned and unplanned learning and development activities.	Interview underpinned by a portfolio of evidence
<b>S22</b> Apply equity, diversity and inclusion policies and procedures	Interview underpinned by a portfolio of evidence
<b>S23</b> Apply quality assurance procedures. For example completion of aircraft servicing schedules, aircraft technical logs.	Interview underpinned by a portfolio of evidence
S24 Apply team working principles.	Interview underpinned by a portfolio of evidence

BEHAVIOUR	ASSESSMENT METHODS
<b>B1</b> Prioritise health and safety, flight safety and consider human factors.	Part-66 practical assessment
<b>B2</b> Collaborate within teams, across disciplines and external stakeholders.	Interview underpinned by a portfolio of evidence
<b>B3</b> Respond and adapt to work demands and situations.	Interview underpinned by a portfolio of evidence
<b>B4</b> Committed to continued professional development (CPD) to maintain and enhance competence in their own area of practice.	Interview underpinned by a portfolio of evidence
<b>B5</b> Takes responsibility for their own work.	Interview underpinned by a portfolio of evidence
<b>B6</b> Consider the environment and sustainability.	Interview underpinned by a portfolio of evidence
<b>B7</b> Support a diverse and inclusive culture.	Interview underpinned by a portfolio of evidence

### Mapping of KSBs to grade themes

## Part-66 knowledge assessment

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
Part 66 knowledge assessment K1 K6 K8 K9 K15 K24	Awareness of health and safety regulations, standards, and guidance - their purpose and impact on role: Control of Substances Hazardous to Health (COSHH), good housekeeping, Health and Safety at work Act, manual handling, Personal Protective Equipment (PPE), risk assessments, Reporting of Injuries, Diseases, and Dangerous Occurrences Regulations (RIDDOR), safe systems of work, types of hazards. (K1) Aircraft maintenance strategies and practices: planned, preventative and reactive methods and their frequency. (K6) Principles of aircraft systems. (K8) Properties and characteristics of aircraft materials. (K9) Engineering mathematical techniques and principles: calculations, conversions, graphical expressions, symbols and formulae. (K15) Human factors: importance and potential consequences, features and limitations of human performance, factors affecting human performance. (K24)	None	None

#### Part-66 practical assessment

Fail - does not meet pass criteria

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
Part 66 practical assessment K5 K10 K11 K12 K17 K18 S1 S2 S3 S5 S6 S8 S9 S10 S11 S12 S13	Maintenance activities: approved methods and practices for aircraft and aircraft components. (K5)	Collect and interpret information or data to perform maintenance tasks. (S1) Record or enter information: paper based or electronic. For example, job sheets, risk assessments, equipment	Prioritise health and safety, flight safety and consider human factors. (B1)

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KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
S17 S18 S19 S20 B1	Preparatory consideration for maintenance activity. (K10) Tools and equipment: check tool condition and tool control, carriage and storage. Calibrated equipment requirements including calibration certificates. (K11) Aircraft maintenance consumables: properties, characteristics and impact of their use. (K12) Written communication techniques. Aircraft maintenance engineering terminology. (K17) Documentation requirements: records, electronic or paper. (K18)	<ul> <li>service records, test results, handover documents and manufacturers' documentation, asset management records, work sheets, checklists, waste environmental records and any reporting requirements. (S2)</li> <li>Comply with health and safety regulations and procedures. Apply safe systems of work. For example, risk assessments, COSHH and tool control and use of equipment and tools. (S3)</li> <li>Plan, organise and use resources to complete tasks. (S5)</li> <li>Follow instructions. For example, manufacturers' and maintenance procedures. (S6)</li> <li>Apply mathematical techniques and engineering principles to solve engineering principles to solve engineering problems. (S8)</li> <li>Apply maintenance methods and practices. For example, remove, refit, replace, repair, systems or components. (S9)</li> <li>Test and check aircraft equipment or aircraft systems. For example, built in test equipment, flight control systems, line replacement units or items. (S10)</li> <li>Assess condition of aircraft components and aircraft equipment. Identify action required. For example, visual inspections. (S11)</li> </ul>	

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
		Select, check, use, store and control tools and equipment. For example, ground support equipment, test equipment. (S12)	
		Apply good housekeeping, for example, prior to, during and after completion of the activity to the work area. (S13)	
		Communicate in writing. (S17)	
		Consider the properties and characteristics of aircraft materials and the possibility of damage to aircraft whilst performing the activity. For example, barely visible impact damage. (S18)	
		Select aircraft consumables for carrying out maintenance activity. (S19)	
		Carry out pre-use checks of resources and ensure sufficient supplies of materials and consumables for maintenance activity. (S20)	

# **Interview underpinned by a portfolio of evidence** Fail - does not meet pass criteria

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
Health, safety, environment and sustainability K2 K13 K14 K22 S15 B6	Responsibilities of technician's role including near miss reporting and working at height procedures. (K2) Operational considerations and impact of aircraft maintenance on the	Comply with environmental and sustainability regulations and procedures. Segregate resources for reuse, recycling and disposal. (S15)	Consider the environment and sustainability. (B6)

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
	organisation or operation. (K13)		
	Aircraft maintenance environment: interdependencies and function between regulators and different teams, limits of responsibility and autonomy with the associated reporting channels. (K14)		
	Awareness of environmental and sustainability regulations, standards and guidance: Environmental Protection Act, sustainability, recyclable materials and waste disposal procedures. Climate change agreements. Carbon Reduction Commitment (CRC). (K22)		
Maintenance, installation and repair K3 K4 S7	Standard operating procedures (SOPs). What they are and why they are important. (K3) Engineering maintenance report of occurrences: processes and procedures for reporting and addressing unexpected issues. (K4)	Follow standard operating procedures (SOPs). (S7)	None
Problem solving and fault finding K16 S4	Problem solving principles: define the problem, collect evidence, analyse evidence, determine the cause and the maintenance activity. (K16)	Identify problems, collect evidence, analyse evidence and determine the cause and maintenance activity required. (S4)	None

KSBS GROUPED BY	KNOWLEDGE	SKILLS	BEHAVIOUR
THEME			
Digital and information technology K19 K20 S14	Information technology: Management Information Systems (MIS), spreadsheets, presentation, word processing, email, virtual communication. General Data Protection Regulation (GDPR). Cyber security. (K19)	Use information technology. For example, for document creation, communication, and information management. Comply with GDPR and cyber security. (S14)	None
	Awareness of digital technologies and information systems: connected technologies in the aviation industry. (K20)		
Team working K27 S24 B2 B3	Team working principles: team integration, collaborative team working. (K27)	Apply team working principles. (S24)	Collaborate within teams, across disciplines and external stakeholders. (B2) Respond and adapt to work demands and situations. (B3)
Communication K7 K21 S16	Aircraft visuals and symbols in the workplace. (K7) Verbal communication techniques: giving and receiving information, matching style to audience, barriers in communication and how to overcome them. (K21)	Communicate with others verbally for example, colleagues and stakeholders. (S16)	None
Continual professional development K25 S21 B4	Workplace training and development activities: continual professional development (CPD). (K25)	Carry out and record planned and unplanned learning and development activities. (S21)	Committed to continued professional development (CPD) to maintain and enhance competence in

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KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
			their own area of practice. (B4)
Quality assurance K26 S23 B5	Quality assurance principles and practice. (K26)	Apply quality assurance procedures. For example completion of aircraft servicing schedules, aircraft technical logs. (S23)	Takes responsibility for their own work. (B5)
Equity, diversity and inclusion K23 S22 B7	The Equality Act: requirements and impact on organisation. Principles of equity, diversity, and inclusion in the workplace and their impact on organisations or stakeholders. Unconscious bias. (K23)	Apply equity, diversity and inclusion policies and procedures (S22)	Support a diverse and inclusive culture. (B7)