Highfield Level 2 End-point Assessment for ST0037 Aviation Ground Operative

Pathway: Aircraft Movement

End-Point Assessment Kit

Highfield Level 2 End-Point Assessment for ST0037 Aviation Ground Operative - Aircraft Movement

EPA Kit

Contents

Please click on the headings below to navigate to the associated section of the EPA Kit.

Versions:

ST0037 / v1.0 / AP02

AVAM v2.0

How to use this EPA Kit

Welcome to the Highfield End-Point Assessment Kit for the Aviation Ground Operative - Aircraft Movement apprenticeship standard.

Highfield is an independent end-point assessment organisation that has been approved to offer and carry out the independent end-point assessments for the Level 2 Aviation Ground Operative - Aircraft Movement apprenticeship standard. Highfield internally quality assures all end-point assessments in accordance with its IQA process. Additionally, all end-point assessments are externally quality assured by the relevant EQA organisation.

The EPA Kit is designed to outline all you need to know about the end-point assessments for this standard and will also provide an overview of the on-programme delivery requirements. In addition, advice and guidance for trainers on how to prepare apprentices for the end-point assessment is included. The approaches suggested are not the only way in which an apprentice may be prepared for their assessments, but trainers may find them helpful as a starting point.

In this guide, you will find:

- an overview of the standard and any on-programme requirements
- a section focused on delivery, where the standard and assessment criteria are presented in a suggested format that is suitable for delivery
- guidance on how to prepare the apprentice for gateway
- detailed information on which part of the standard is assessed by which assessment method
- suggestions on how to prepare the apprentice for each part of the end-point assessment
- a section focused on the end-point assessment method where the assessment criteria are presented in a format suitable for carrying out 'mock' assessments

Introduction

Aviation Ground Operative - Aircraft Movement overview

The Aviation Ground Operative standard covers 5 pathways: Aircraft Handling, Aircraft Movement, Fire Fighter, Flight Operations and Passenger Services. This EPA Kit is designed to support the aircraft movement pathway.

An aviation ground operative could work in a number of environments, such as a commercial airport, military base/aerodrome, heliport or other airfield. With 5 key specialist functions all working in conjunction with each other, aviation ground operators form the teams above and below wing to ensure the efficient and effective arrival, turnaround and departure of aircraft. At the heart of the role is safety, security and compliance with aviation regulations that focus on each operator's day-to-day duties. Effective communication and teamwork ensure that aircraft handling, air traffic control (ATC) and those moving, loading, unloading and servicing a range of aircraft achieve the objectives of their organisation in this diverse field.

An aircraft movement operative acts as a team member in the safe and efficient movement and recovery of fixed and rotary wing aircraft at a variety of airports/heliports and other landing platforms within the civil aviation and military arenas. They undertake tasks as team members using specialised equipment to move aircraft within an aviation environment in accordance with standard operating procedures.

On-programme requirements

Although learning, development and on-programme assessment is flexible, and the process is not prescribed, the following is the recommended baseline expectation for an apprentice to achieve full competence in line with the Aviation Ground Operative – Aircraft Movement apprenticeship standard.

The on-programme assessment approach will be agreed between the training provider and employer. The assessment will give an ongoing indication of an apprentice's performance against the final outcomes defined in the standard. The training provider will need to prepare the apprentice for the end-point assessment, including preparation for the practical observation and professional discussion.

The training programme leading to end-point assessment should cover the breadth and depth of the standard using suggested on-programme assessment methods that integrate the knowledge, skills and behaviour components, and which ensure that the apprentice is sufficiently prepared to undertake the end-point assessment. Training, development and ongoing review activities should include:

- achievement of level 1 English and maths. If the apprentice began their apprenticeship training before their 19th birthday, they will still be subject to the mandatory requirement to study towards and achieve English and maths. The requirements for English and maths are optional for apprentices aged 19+ at the start of their apprenticeship training.

The process of maintaining a continuous assessment record is important so employers are confident in determining when the apprentice has achieved full competence in their job roles and is ready for end-point assessment. The continuous assessment record is not a portfolio of evidence, but a practical record of what the apprentice can do following periods of training, development and assessment. A minimum of 4 meetings and completed records are recommended to show ongoing competence across the entire standard, over a minimum of a 12-month period prior to starting the end-point assessment.

Additional, relevant on-programme qualification

There are no mandatory qualifications for this standard, however, employers may wish to include relevant qualifications to help structure the on-programme delivery.

Use of Artificial Intelligence (AI) in the EPA

Where AI has been used as part of the apprentice`s day-to-day work and forms part of a project report, presentation, or artefact, it should be referenced as such within the work. AI must not be used to produce the report or portfolio.

Where AI has been used as part of a portfolio that underpins an interview or professional discussion or any other assessment method, it should be fully referenced within the portfolio.

Readiness for end-point assessment

For a learner to be ready for the end-point assessments:

- the apprentice must have achieved level 1 English and maths. The requirements for English and maths are mandatory for all apprentices aged between 16-18 at the start of their apprenticeship training. The requirements for English and maths are optional for apprentices aged 19+ at the start of their apprenticeship training.
- the employer must be confident that the apprentice has developed all the knowledge, skills and behaviours defined in the apprenticeship standard. To ensure this, the learner must attend a formal meeting with their employer to complete the Gateway Readiness Report
- the apprentice and the employer should engage with Highfield to agree a plan and schedule for each assessment activity to ensure all components can be completed within a 2-month end-assessment window. Further information about the gateway process is covered later in this kit

If you have any queries regarding the gateway requirements, please contact your EPA Customer Engagement Manager at Highfield Assessment.

Order of end-point assessments

There are 3 end-point assessment methods: 2 on-demand tests, a practical observation and a professional discussion. The assessments can be taken in any order.

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The Highfield approach

This section describes the approach Highfield has adopted in the development of this end-point assessment in terms of its interpretation of the requirements of the end-point assessment plan and other relevant documents.

Documents used in developing this end-point assessment

Standard (2016)

Aviation Ground Operative / Skills England

End-point assessment plan (July 2016)

https://skillsengland.education.gov.uk/media/7237/aviation_ground_operative-em.pdf

Common approach

People 1st

Specific considerations

Two on-demand tests - Highfield has used 30 scenario-based questions, with 60% being the pass mark for each of the on-demand tests, to align with the People 1st common approach.

In accordance with the aviation ground operative assessment plan, Highfield has detailed which criteria **must** be covered within the professional discussion at the end of this guide. Additionally, the criteria that are not covered by the selected observation scenario must also be assessed during the professional discussion.

During the practical observation, wherever possible, situations and evidence should be naturally occurring. However, to ensure that all criteria can be covered, some simulation will be allowed to ensure total coverage of the standards. This can be arranged before the assessment takes place to give the best opportunity for all criteria to be met.

As the subject areas that the following criteria and behaviour statements are intended to assess are not clearly listed in the assessment plan, they have been aggregated into the subject areas Highfield have deemed most appropriate. Criteria for the on-demand tests and professional discussion have been written based on the knowledge, skills and behaviour statements outlined in the assessment plan. All of the evidence criteria used within this end-point assessment have been taken directly from the Aviation Ground Operative standard assessment plan or written based on supporting documentation.

The assessment plan states that: 'The on demand tests and observation can be completed in any order but must be passed prior to the professional discussion as the last assessment activity', however, this has since been revised within the People 1st common approach document, issued in November 2019, allowing the assessment methods to now be taken in any order.

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Gateway

How to prepare for gateway

After apprentices have completed their on-programme learning, they should be ready to pass through 'gateway' to their end-point assessment.

Gateway is a meeting that should be arranged between the apprentice, their employer and training provider to determine that the apprentice is ready to undertake their end-point assessment. The apprentice should prepare for this meeting by bringing along work-based evidence, including:

- customer feedback
- recordings
- manager statements
- witness statements

As well as evidence from others, such as:

- mid and end-of-year performance reviews
- feedback to show how they have met the apprenticeship standards while on-programme

In advance of gateway, apprentices will need to have completed the following. The requirements for English and maths listed below are mandatory for all apprentices aged between 16-18 at the start of their apprenticeship training. The requirements for English and maths listed below are optional for apprentices aged 19+ at the start of their apprenticeship training.

- Achieved level 1 English
- Achieved level 1 maths

Therefore, apprentices should be advised by employers and providers to gather this evidence and undertake these qualifications during their on-programme training. It is recommended that employers and providers complete regular checks and reviews of this evidence to ensure the apprentice is progressing and achieving the standards before the formal gateway meeting is arranged.

The gateway meeting

The gateway meeting should last around an hour and must be completed on or after the apprenticeship on-programme end date. It should be attended by the apprentice and the relevant people who have worked with the apprentice on-programme, such as the line manager/employer or mentor, the on-programme trainer/training provider and/or a senior manager (as appropriate to the business).

During the meeting, the apprentice, employer and training provider will discuss the apprentice's progress to date and confirm if the apprentice has met the full criteria of the apprenticeship standard during their on-programme training. The **Gateway Readiness Repo**rt should be used to log the outcomes of the meeting and agreed by all 3 parties. This report is available to download from the Highfield Assessment website.

The report should then be submitted to Highfield to initiate the end-point assessment process. If you require any support completing the Gateway Readiness Report, please contact your EPA Customer Engagement Manager at Highfield Assessment.

Please note: a copy of the standard should be available to all attendees during the gateway meeting.

Reasonable adjustments and special considerations

Highfield Assessment has measures in place for apprentices who require additional support. Please refer to the Highfield Assessment Reasonable Adjustments Policy for further information/guidance.

ID requirements

Highfield Assessment will need to ensure that the person undertaking an assessment is indeed the person they are claiming to be. All employers are therefore required to ensure that each apprentice has their identification with them on the day of the assessment so the end-point assessor can check.

Highfield Assessment will accept the following as proof of an apprentice's identity:

- a valid passport (any nationality)
- a signed UK photocard driving licence
- a valid warrant card issued by HM forces or the police
- another photographic ID card such as an employee ID card or travel card

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The Aviation Ground Operative – Aircraft Movement apprenticeship standard

The following pages contain the Level 2 Aviation Ground Operative apprenticeship standard and the assessment criteria for the **Aircraft Movement** pathway, in a suggested format that is suitable for delivery.

<table>
<tr><th colspan="3">Safety</th></tr>
<tr><th>Knowledge</th><th>Skills</th><th>Behaviour</th></tr>
<tr><td>Health and safety regulations and legislation relevant to the role; an aviation environment and organisational procedures and how they impact on self, others and in relation to aviation operational duties</td><td>Work in line with organisational and legal requirements relating to health and safety, and be aware of, report and prevent hazards in an aviation environment</td><td>Work responsibly to keep people safe and operations flowing smoothly, complying with working practices

Treat work areas and equipment with respect at all times</td></tr>
<tr><td colspan="3">On-demand test</td></tr>
<tr><td colspan="3">Indicative assessment criteria</td></tr>
<tr><td colspan="3">SA1 Understand how to act within standard operating procedures at all times
SA2 Identify legislation and organisational procedures covering health and safety
SA3 Identify the location and the hazards associated with the ramp/dispersal area
SA4 Understand the health, safety and hazards associated with aircraft movement
SA5 Identify surface markings, operating and emergency areas for aircraft, vehicles and pedestrians on the ramp area
SA6 Identify personal protective equipment (PPE) and describe when to wear it
SA7 Describe dangers from foreign object debris (FOD) and the importance of keeping areas clean and tidy at all times
SA8 Describe dangers from birds and other wild animals and the importance of ensuring that the area does not attract them
SA9 Describe how to use equipment and vehicles on the ramp area
SA10 Outline the benefits of safe working practices
SA11 Identify the consequences of not operating safely in an airport environment
SA12 Identify the main causes of incidents/accidents in an airport
SA13 Identify hazardous materials and outline the procedures for using them</td></tr>
</table>

SA14 Describe **procedures for reporting incidents/accidents airside** **SA15** Describe the effects of **severe weather** airside and the precautions to take		
Observation		
Pass criteria	**Merit criteria**	***Distinction criteria***
SA16 Correctly report hazards if identified **SA17** Act within standard operating procedures at all times	**SA18** Take action to deal with hazards in line with **organisational procedures**	*There are no distinction criteria for this component*

Amplification and guidance

Regulations and legislation

- Regulators:
  - Civil Aviation Authority (CAA)
  - International Civil Aviation Organisation (ICAO)
  - European Aviation Safety Agency (EASA)
  - Department for Transport (DfT)
  - Military Aviation Authority (MAA)
  - these organisations all publish guidance and information relevant to job roles contained within this specification
- Legislation:
  - Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
  - Health and Safety at Work etc. Act
  - Air Navigation Order (ANO)
  - CAP 168 Aerodrome Licensing
  - Control of Substances Hazardous to Health (COSHH)
  - MAA regulations:
    - MAA02 Master Glossary
    - MAS regulations 1000 to 5000
  - local bylaws

- relevant CAPs such as:
  - CAP642 Airside Safety Management
  - CAP 772 Wildlife Hazard Management

Organisational procedures

- May include:
  - standard operating procedures (SOPs), industry, organisational and regulator specific instructions and guidance and are based on:
    - safe methods of working
    - safe systems of working
    - risk assessment:
      - fire drill

Location and hazards associated with the ramp/dispersal area

- Risks in the ramp/dispersal area including:
  - vehicles
  - human injury
  - ground support equipment areas
- Risks from aircraft such as:
  - aircraft movement hazards:
    - jet blast
    - engine ingestion
    - rotary blades or propellers
    - propeller wash
    - wingtip clearance/collision
    - taxiing aircraft

- vehicle movement hazards:
  - ground support equipment traffic
  - air bridges
- foreign object debris (FOD)
- weather-related hazards
- human factors:
  - fatigue
  - miscommunication
  - distraction
- fire hazards:
  - fueling operations
  - electrical equipment
- noise hazards
- use of cones/passenger integrated guidance systems (PIGS)

Hazards associated with aircraft movement

- Awareness and use of designated areas such as:
  - movement/dispersal areas
  - safety zones for personnel
  - awareness of moving aircraft/aircraft not cleared to approach
  - following procedures when operating in the manoeuvre/movement areas
- Runway incursions:
  - runway crossings
  - incorrect runway use:
    - mistakes in identifying runways/taxiways
    - attempting to take-off or land on the incorrect runway

- Emergency situations:
    - aircraft brake failure
    - aircraft engine failure
    - evacuation hazards

Surface markings

- Compliance with CAP 637 Visual Aids
- Awareness and use of:
    - pedestrian walkways
    - road markings/road signs
    - speed limits
    - identified gate areas
    - equipment/vehicle parking bays
    - remote aircraft parking
    - safety zones
    - centrelines
    - parking markers/indicators for specific aircraft

Personal protective equipment (PPE):

- Equipment worn as stipulated in SOPs when airside
- Gloves
- High-visibility clothing
- Ear protection
- Safety footwear

Dangers from foreign object debris (FOD)

- Damage to movement areas and aircraft

- Injuries to staff and passengers
- Increased operating costs to airlines
- Ensure FOD plods take place as a precaution

Dangers from birds and other wild animals

- Engine failure due to bird strike
- Collision
- Damage to aircraft
- Following procedures for airfield wildlife management and bird control

Equipment and vehicles on the ramp area

- Purpose, use and safety features of ground equipment and vehicles such as:
    - aircraft tugs and tractors
    - baggage carts/dollies
    - loading equipment
    - ground power units
    - air start units
    - refueling vehicles
    - de-icing vehicles
    - passenger boarding steps and air stairs
    - catering trucks
    - lavatory service trucks
    - water service trucks
    - aircraft rescue and firefighting vehicles
    - ramp buses

Benefits of a safe working environment

- Personal safety and well-being
- Operational efficiency
- Cost savings
- Enhanced reputation

Consequences of not operating safely

- Injury or fatality
- Damage to aircraft and equipment
- Operational disruptions
- Financial losses/claims
- Reputational damage

Main causes of incidents/accidents in an airport

- Human error:
    - inattention
    - distraction
    - fatigue
    - lack of training
- Poor communication
- Equipment failure:
    - mechanical breakdown
    - incorrect use
- Environmental factors
- Procedural failures

Hazardous materials

- Aviation fuel
- De-icing fluids
- Hydraulic fluids
- Compressed gases

Procedures for reporting incidents/accidents airside

- Follow airfield safety and emergency procedures
- Alert supervisors
- Activate emergency services (if necessary)
- Follow internal reporting procedures
- Notify any relevant authorities

Severe weather

- Extreme bouts of:
    - wind
    - snow
    - ice
    - heat

Security		
Knowledge	**Skills**	**Behaviour**
The systems, procedures and requirements to ensure security of self and others in own area of responsibility	Contribute to security of self and others in own area of responsibility, e.g. in airside/landside areas	Work responsibly to keep people safe and operations flowing smoothly, complying with working practices
On-demand test		
Indicative assessment criteria		
SE1 Identify signs of **suspicious behaviour** **SE2** Outline the **limits of your authority** **SE3** Identify **specified, banned, illegal and dangerous items** **SE4** Explain **threat or risk** awareness **SE5** Identify **relevant aviation security documents** **SE6** Identify **relevant aviation security authorities** **SE7** Outline **your responsibility** in relation to security **SE8** Outline your organisation's **procedures for restricting access**		
Professional discussion		
Indicative assessment criteria		
SE9 Describe how to secure items, areas and data in line with your responsibilities **SE10** Describe your organisation's personal identification requirements **SE11** Identify reporting procedures for suspicious incidents or behaviour **SE12** Identify reporting procedures for **discrepancies in the security of actual or potential access points** **SE13** Describe how to ensure action is taken in response to an actual or suspected security threat **SE14** Describe the appropriate remedial actions to take when irregularities in security are identified		

Amplification and guidance

Suspicious behaviour
• Body language:
  ○ appearing nervous or agitated
  ○ excessive fidgeting
  ○ clock-watching
  ○ head-turning
  ○ shuffling feet
  ○ leg shaking
  ○ excessive sweating inconsistent with environment
• Unusual movement or loitering
• Unusual interest in security measures or restricted areas
• Attempting to conceal identity
• Unrelated phone calls or conversations
 	
Limits of your authority
• Access control:
  ○ restricted areas
  ○ personal identification
• Decision-making authority:
  ○ operational decisions within scope of your responsibilities
  ○ incident management
• Compliance with regulations:
  ○ adherence to standard operating procedures
  ○ adherence to the relevant regulatory authority

Specified, banned, illegal and dangerous items

- Specified items:
  - liquids, aerosols and gels in restricted quantities
  - medication
- Banned items:
  - specifically prohibited from being present in certain areas:
    - weapons:
      - firearms (unless carried by security personnel)
      - knives
    - unauthorised electronics
    - unapproved chemicals
- Illegal items:
  - possession, handling or transportation is against the law
    - contraband
    - drugs
    - counterfeit currency
    - smuggled goods
    - explosives
    - unlicensed hazardous materials
- Dangerous items:
  - can pose a safety risk if improperly handled and require specialist handling, storage or disposal procedures:
    - flammable materials
    - solvents
    - aerosols
    - fuels

- compressed gases

Threat or risk

- Improvised explosive devices (IED)
- Knives
- Guns
- Improvised weapons such as:
  - scissors
  - cutlery
- Hijack of aircraft (ground or in air)
- Bags in airport left unattended
- Awareness of current National Security Threat level

Relevant aviation security documents

- Passenger documents:
  - passports
  - tickets
  - boarding cards
  - ID cards
  - pertinent travel documents
- Staff documents or identification:
  - staff ID
  - visitor's ID
  - completion of general security awareness training (GSAT)
  - completion of authentication, authorisation and accounting (AAA) certificate

Relevant aviation security authorities

- Civil Aviation Authority (CAA)
- Military Aviation Authority (MAA)
- Department for Transport (DfT)

Your responsibility

- Adhere to company security procedures:
- Identify unattended baggage/items
- Awareness of and reporting restricted items
- Report and awareness of security breaches by staff and passengers
- Attending training sessions and refresher training
- Awareness of current National Security Threat level
- Ensure no tailgating at access points
- Carry appropriate ID
- Be vigilant to activity

Procedures for restricting access

- Identification and verification
- Access control systems
- Screening and security checks
- Use of technology
- Ensure accurate headcount

Discrepancies in the security of actual or potential access points

- Gate change
- Unacceptable passenger

- Missing passenger
- Missing passenger document
- Hand baggage not acceptable

Compliance & legislation		
Knowledge	**Skills**	**Behaviour**
Aviation and regulatory legislation, procedures and regulations relating to an aviation environment, within own area of responsibility	Comply with all relevant legislation, procedures and regulations in an aviation environment within own area of responsibility	Work responsibly to keep people safe and operations flowing smoothly, complying with working practices
On-demand test		
Indicative assessment criteria		
CL1 Explain the **requirements for compliance** in the aviation environment **CL2** Outline **procedures that must be followed** to ensure compliance **CL3** Explain the **impact of not following procedures and ensuring compliance** **CL4** Explain the **impact of the aviation operation on the environment** **CL5** Identify **environmental controls** in the aviation operation		
Practical observation		
Pass criteria	**Merit criteria**	***Distinction criteria***
CL6 Check area of responsibility complies with procedures and legislative requirements	**CL7** Take action to correct non-compliance	***CL8*** *Proactively ensure compliance with procedures and legislation, e.g. challenge suspicious persons*
Amplification and guidance		
Requirements for compliance • Compliance with Civil Aviation Authority (CAA) and/or Military Aviation Authority (MAA) requirements • Compliance with local bylaws • Safety of yourself, colleagues, crew, visitors and passengers • Rules to deal with unattended baggage or restricted items • Awareness of security breaches by staff and passengers		

- Ensuring General Data Protection Regulations (GDPR) are adhered to
- Correct disposal of confidential waste
- Computer screens are locked when leaving work areas
- Wearing/carrying ID as required

Procedures that must be followed

- Safety:
    - personal safety:
        - wear appropriate personal protective equipment
        - follow safety protocols
    - equipment handling
    - hazard identification
- Security procedures:
    - access control:
        - verify identification
        - monitor access points
    - suspicious behaviour
- Operational procedures
- Emergency procedures
- Reporting procedures:
    - incident reporting

Impact of not following procedures and ensuring compliance

- Safety risks:
    - increased accident risk
    - creation of hazardous conditions
- Security breaches:

    - unauthorised access
    - vulnerability to attacks
- Operational inefficiencies:
    - disruption of services
    - damage to equipment and cargo

Impact of the aviation operation on the environment

- Air quality:
    - greenhouse gas emissions
    - air pollutants
- Water quality:
    - run-off from activities such as de-icing
    - disposal of waste water
- Noise pollution:
    - take-off and landings
    - ground operations
- Land use and habitat disruption:
    - airport construction and expansion
    - grass cutting to discourage nesting and foraging
- Energy consumption:
    - fossil fuels
    - energy efficiency

Environmental controls

- Noise on and around airports
- Carbon emissions
- International spread of disease due to travel
- Is water used on board safe to drink from
- Filling points in the airport terminals

- Water transporters
- Importation and exportation of live animals
- Food safety both at the terminal and on board the aircraft

Communication		
Knowledge	**Skills**	**Behaviour**
How to communicate effectively and transfer relevant information to people and how to select the most appropriate method of communication	Communicate effectively transmitting and receiving information and recording it as required	Treat others with respect at all times
On-demand test		
Indicative assessment criteria		
CO1 Describe available **lines and methods of communication** **CO2** Identify relevant **communications equipment** and explain organisational procedures relating to its use **CO3** Explain organisational procedures regarding **malfunctioning equipment** **CO4** Identify relevant aviation **guidelines, procedures and standard phrases** **CO5** Identify commonly used **aviation codes** relevant to your job role and **sources of information for less commonly used codes** **CO6** Know **the phonetic alphabet** **CO7** Explain the difference between **confidential and commercially sensitive information**, and describe your organisation's systems for processing and storing this information **CO8** Explain organisational procedures for passing on messages and **alternative communication routes** in the event of an equipment failure **CO9** Manage **requests for information from: seniors, colleagues or external sources**		
Practical observation		
Pass criteria	**Merit criteria**	***Distinction criteria***
CO10 Communicate with the right people at the right time using the correct method **CO11** Ensure communication is received and understood **CO12** Ensure all communications are timely and accurate	**CO13** Adapt language and tone to match audience and situation	***CO14** Ensure all communications are effective and understood, anticipating additional appropriate information requirements and liaising with key people to facilitate ongoing information flow*

Amplification and guidance

Lines and methods of communication
• Verbal
• Non-verbal
• Written
• Electronic
• Hand signals
• Use of interpreters/software
 	
Communications equipment
• Handheld radio
• Mobile phone
• Fixed-line telephone
• Public address (PA) system
• Air-to-ground radio
• Lights:
  ○ anti-collision lights to indicate safe/unsafe to approach
• Alarms:
  ○ alarmed access doors
• Noticeboards
• Flight information display systems
 	
Malfunctioning equipment
• Identify the problem
• Notify supervisors/helpdesks
• Complete incident reports if necessary

- Implement safety protocols if necessary

Guidelines, procedures and standard phrases

- Aviation industry, organisational and regulator specific instructions and guidance such as:
    - Radiotelephony manual (CAP 413)
    - Military Aviation Authority (MAA) Regulations
    - Air Traffic Management (ATM)
    - adding gate/passenger comments to passenger name records (PNRs)

Aviation codes

- International Civil Aviation Organisation (ICAO) airport, airline and aircraft codes
- International Air Transport Association (IATA) airport, airline, baggage, delay and cargo codes
- Aircraft registration codes
- Weather and flight plan codes

Sources of information for less commonly used codes

- Aviation authorities and regulatory bodies
- Manuals
- Industry databases and tools
- Training and educational platforms

The phonetic alphabet

- NATO phonetic alphabet, for example:
    - A - Alpha
    - B - Bravo
    - C - Charlie

- Used for clarity in communication

Confidential and commercially sensitive information

- Technical data:
  - aircraft design specifications
  - maintenance records
- Operational data:
  - flight plans and/or schedules
  - pilot and crew rosters and timetables
- safety reports and investigations
- Customer information:
  - agreements with airlines, leasing companies or cargo operators
  - personal data linked to passengers and personnel
- Financial or business information
- Regulatory compliance data

Alternative communication routes

- Public address system
- Landline/mobile phone
- Handheld radio
- Hand signals
- Signs
- Email
- Flight information display system (FIDS)
- Noticeboards
- Social media platforms
- Local TV, radio, media stations

Requests for information from: seniors, colleagues or external sources

- Pass on appropriate information to relevant people
- Consider confidential and commercially sensitive information
- Ensure information is up-to-date and accurate

Inter-personal skills		
Knowledge	**Skills**	**Behaviour**
Own role within the team and how it contributes to achieving objectives. Know how to identify and respond to **individuals' needs** and abilities in different situations and communicate with others and colleagues from a diverse range of backgrounds and cultures.	Work effectively as part of a team and with others, identifying and responding to the needs of individuals, including colleagues, other organisations or customers	Be a positive role model to others in attitude to work and how it is undertaken. Treat the team, customers and other **stakeholders** with courtesy respect. Be punctual and reliable. Demonstrate personal drive to achieve the vision and objectives of the organisation.
Professional discussion		
Indicative assessment criteria		
IP1 Explain the benefits of developing productive working relationships with colleagues **IP2** Explain how to address conflicts with colleagues **IP3** Describe how to deal with diversity issues **IP4** Outline how to receive and make use of feedback on your performance from colleagues **IP5** Identify the responsibilities of team members in own area **IP6** Outline the processes within the organisation for making decisions **IP7** Outline line management relationships within the organisation **IP8** Identify the organisation's aims, values and culture **IP9** Explain the standards of appearance, behaviour and performance expected in the organisation **IP10** Identify your organisation's guidelines for how to recognise what your customer wants, and respond appropriately **IP11** Respond to requests for information adhering to your organisation's standard timeliness		
Practical observation		
Pass criteria	**Merit criteria**	***Distinction criteria***

IP12 Work as part of a team to ensure adequate performance in the role **IP13** Work accurately with supervision	**IP14** Take initiative as part of a team to improve performance in the role within limits of operation **IP15** Work accurately with minimal supervision	*There are no distinction criteria for this component*
Amplification and guidance		
Individuals' needs • Treat stakeholders courteously and helpfully at all times • Keep stakeholder informed and reassured • Respond promptly to a stakeholder seeking help • Check with stakeholder that you have fully understood their expectations **Stakeholders** • People • Organisations • Social groups • Internal or external to the business that have a vital interest in the business or its activities		

Aviation systems		
Knowledge	**Skills**	**Behaviour**
Identify key **aviation systems** used in own role and how to operate and adhere to them in line with the organisation's procedures	Use **aviation systems** relevant to own role effectively to achieve the required outcome	Use equipment and technology responsibly and effectively Work responsibly to keep operation flowing smoothly, complying with working practices
Practical observation		
Pass criteria	**Merit criteria**	***Distinction criteria***
AS1 Use prescribed systems correctly **AS2** Report faults or errors as they occur **AS3** Meet performance expectation for timescales to complete tasks	**AS4** Take action to maintain systems to prevent faults or errors **AS5** Work efficiently to meet and exceed timescales to complete tasks	***AS6*** *Organise and prioritise work to make the most efficient use of time and complete core and relevant additional tasks within timescales*
Amplification and guidance		

Aviation systems
• Handheld devices:
  ○ tablets
  ○ networked laptop
  ○ desktop computer systems that contribute to the overall management of ground operations		

Disruption incidents & emergencies		
Knowledge	**Skills**	**Behaviour**
Emergency procedures in own area of responsibility, common incidents and disruption that may occur in an aviation environment and the appropriate action to take in the event of an incident	Take appropriate action in the event of an incident, disruption or emergency, liaising with relevant people and recording actions and outcomes as required	Remain focused when a problem arises so that effective and timely decisions can be made Handle all tasks in a calm and organised manner
On-demand test		
Indicative assessment criteria		
DI1 Get help to **identify an incident/emergency** and be able to describe its main features **DI2** Know **how the incident/emergency affects you and other people** **DI3** Know how people would like to be **informed about the progress and solution of the incident/emergency** **DI4** Identify **problem-solving methods** that can be adopted to address the incident/emergency **DI5** Identify **factors** that may affect the way you deal with the incident/emergency **DI6** Identify which **people** could help you resolve the incident/emergency **DI7** Outline **rules and regulations** that you have to consider when solving the incident/emergency **DI8** Know **how to overcome difficulties** when solving incidents/emergencies **DI9** Follow a plan that takes into account any issues that may arise **DI10** Explain how you will **know when an incident/emergency has been resolved** **DI11** Know how to access **additional support** available post-incident		
Professional discussion		
Indicative assessment criteria		
DI12 Interpret incidents/emergencies that have been identified **DI13** Ask suitable questions to check you understand the incident/emergency **DI14** Identify the available solution(s) for resolving the incident/emergency **DI15** Discuss and understand proposed solution(s) to the incident/emergency with others to identify the most suitable solution		

DI16 Keep others fully informed about what is happening to resolve the incident/emergency
DI17 Check with others to ensure the incident/emergency has been resolved satisfactorily
DI18 Give clear reasons to others when the incident/emergency has not been resolved satisfactorily
DI19 Be engaged with the job role, remaining calm and assured throughout the working period
DI20 Be able to concentrate on the task in hand and not be distracted by problems
DI21 Prioritise all tasks to ensure effective time management and a calm approach to work

Amplification and guidance

Identify an incident/emergency

- Recognising when problems arise and passing on relevant information:
    - gathering information from others
    - asking questions to ensure understanding
    - discussing the situation with others involved to ensure all details are covered and none have been missed

How the incident/emergency affects you and other people

- Passengers:
    - physical and mental health
    - psychological impact
    - delays and disruptions
- Flight crew
    - responsibility for safety
    - career impact
    - crew operating hours
    - impact on physical and mental health
- Ground personnel
    - impact on staffing levels
    - impact on physical and mental health
- Aviation industry

- reputational damage
- financial losses
- operational disruptions

Informed about the progress and solution of the incident/emergency

- Calm and direct communication
- Visual and auditory alerts
- Notification via official channels
- Frequent updates
- Clear terminal announcements
- Formal incident reports
- Press office
- Social media updates

Problem-solving methods

- Following standard operating procedures and checklists
- Risk assessment and mitigation
- Simulation and drills

Factors

- Training and experience
- Stress and emotional response
- Fatigue and physical condition
- Personality traits and coping mechanisms
- Support systems

- Situational awareness
- Communication skills
- Leadership and decision-making abilities
- The type of incident/emergency

People

- Flight crew
- Cabin crew
- Air traffic control
- Emergency response teams/services
- Maintenance/technical support teams
- Passengers
- Airport operations/ground crew
- Airport terminal management
- Central/base station ops

Rules and regulations

- International regulations:
    - IATA
    - ICAO
- National regulations:
    - European Union Aviation Safety Agency (EASA)
    - United Kingdom Civil Aviation Authority (UKCAA)
- Air-specific regulations:
    - air operating manuals

- Emergency response plans/procedures
- Passenger safety regulations

How to overcome difficulties

- Clear communication:
    - using standardised communication
    - maintaining calm and clarity
    - giving regular updates
- Effective decision-making:
    - following emergency checklists
    - utilising simulations or training exercises

Know when an incident/emergency has been resolved

- When advised by supervisor/duty manager
- Confirmation from authorities
- Resumption of normal operations
- Verification through checklists and procedures
- Incident report filed and confirmed

Additional support

- Medical assistance
- Psychological support
- Customer service support
- Compensation
- Post-incident review and safety improvements

Dangerous goods		
Knowledge	**Skills**	**Behaviour**
Relevant dangerous goods and how to deal with them effectively in own area of responsibility	Follow procedures for identification and safe handling of dangerous goods in own area of responsibility	Work responsibly to keep people safe, complying with working practices
On-demand test		
Indicative assessment criteria		
DG1 Acknowledge and understand the general **principles of storage, carriage and handling of dangerous goods** **DG2** Identify **classifications of dangerous goods** **DG3** Explain **dangerous goods handling requirements** **DG4** Explain the **emergency procedures** in the event of a dangerous goods incident		
Professional discussion		
Indicative assessment criteria		
DG5 Ensure dangerous goods are handled effectively in accordance with organisational procedures and responsibilities **DG6** Identify potential dangerous goods hazards **DG7** Operate safely when exposed to dangerous goods		
Amplification and guidance		

Principles of storage, carriage and handling of dangerous goods
• Ensuring proper packaging:
  ○ using ICAO/IATA-approved packaging
  ○ ensuring secure sealing
  ○ following quantity restrictions
• Segregation of incompatible goods, for example:
  ○ oxidisers and flammable liquids
  ○ using designated storage areas		

- following compartmentalisation rules
- Manual handling safety
- Using specialised equipment
- Maintaining safe loading practices
- Avoiding damages or spillages
- Monitoring and inspection
- Documentation and record-keeping

Classifications of dangerous goods

- Understanding hazard classes as stipulated by dangerous goods regulations:
  - class 1 – explosives
  - class 2 – gases:
    - flammable
    - non-flammable
    - toxic
  - class 3 – flammable liquids
  - class 4 – flammable solids, substances liable to spontaneous combustion and substances that emit flammable gases when in contact with water
  - class 5 – oxidising substances and organic peroxides
  - class 6 – toxic and infectious substances
  - class 7 – radioactive materials
  - class 8 – corrosive substances
  - class 9 – miscellaneous dangerous goods:
    - lithium batteries
    - dry ice
    - environmentally hazardous substances

- Understanding packing groups:
    - packing group 1 (PG I) – high danger
    - packing group 2 (PG II) – medium danger
    - packing group 3 (PG III) – low danger
    - packing groups help to determine the specific packaging requirements for transport
- Proper shipping names (PSN) and United Nations (UN) numbers:
    - each dangerous good is assigned a proper shipping name (PSN) and a United Nations (UN) number, used to identify the material during transport
    - each PSN and UN must appear on the packaging, labels and shipping documents to ensure the correct handling procedures are followed

Dangerous goods handling requirements

- Training and certification
- Proper packaging:
    - packing groups
    - PSN/UN numbers
- Labelling and marking:
    - hazard labels relevant to the material's classification
    - handling labels, for example:
        - fragile
        - keep away from heat
- Correct documentation
- Segregation of incompatible goods
- Handling and loading standard operating procedures
- Risk assessment and monitoring

Emergency procedures

- Immediate response and evacuation:
  - stop work and secure the area
  - evacuate non-essential personnel
  - establish a safe perimeter
- Notification and communication:
  - notify supervisors and emergency services
- Use of personal protective equipment (PPE)
- Spill containment
- Fire response procedures
- Use of first aid
- Incident reporting
- Decontamination procedures

Operate aviation specialist equipment		
Knowledge	**Skills**	
Own responsibilities for checking specialised aircraft movement equipment prior to use, how to operate **specialist equipment** safely and ensure it is left in its allocated area on completion of use according to the organisation's procedure	Conduct regularly scheduled inspections prior to using aviation **specialist equipment**, operate equipment in accordance with standard operating procedures and ensure it is stored in a safe secure manner after use	
On-demand test		
Indicative assessment criteria		
OA1 Identify pieces of **specialist equipment** and which tasks/aircraft types they are suitable for **OA2** Describe any **special conditions of use for specialist equipment** at the location **OA3** Describe the types of **defects on specialist equipment** and the **correct procedures for dealing with them** **OA4** Explain how to **confirm the equipment has sufficient fuel/battery power** for the task (if motorised equipment) **OA5** Describe how the regulations in place (**Provision and use of work equipment regulations (PUWER)** or equivalent) are met by the organisation **OA6** Explain who has overall **responsibility** for ensuring equipment is safe to operate **OA7** Identify the **types of support** that may be needed in the event of a breakdown **OA8** Describe the correct **aircraft/vehicle guidance signals** in line with organisational procedures **OA9** Describe the **specific airport rules** relating to leaving equipment in a safe and secure mode, and the **additional measures that must be taken during extreme weather and severe winds**		
Practical observation		
Pass criteria	**Merit criteria**	***Distinction criteria***
OA10 Arrived punctually **OA11** Dressed in the correct PPE **OA12** Suitably trained with awareness of specialisation **OA13** Select the correct equipment for the task	**OA17** Thorough knowledge of the task **OA18** Identify potential hazards on the equipment **OA19** Correct notification procedures of equipment defects	***OA20*** *Able to explain the task in depth* ***OA21*** *Identify, report and follow through rectification procedures*

OA14 Carry out pre-use checks correctly in accordance with reference cards **OA15** Following standard operating procedures to complete the task **OA16** Operate equipment safely		

Amplification and guidance

Specialist equipment

- Aircraft tugs/tractors
- Ground power unit (GPU)
- Air start unit (ASU)
- Baggage carts/dollies/Charlottes/electronic baggage trollies (EBTs)
- Belt loaders
- Aircraft service stairs/passenger boarding stairs
- High loader/container loader/low loader
- De-icing vehicles
- Lavatory service vehicles
- Water service vehicles
- Fuel trucks
- Pushback tractors
- Catering trucks
- Chocks and cones
- Aircraft jack

Special conditions of use for specialist equipment

- Towbars and tow tractors:
    - weather conditions:

        - high winds and icy or wet surfaces require slower towing speeds and careful control to maintain traction
    - aircraft weight:
        - ensure proper tug size for aircraft weight, especially for large wide-body aircraft
    - slopes and elevation:
        - extra safety measures are required to prevent accidental aircraft movement on uneven surfaces
    - communication:
        - constant communication with the flight crew is crucial during pushback operations
- Wheel chocks:
    - aircraft size:
        - larger aircraft require larger chocks for proper stabilisation
    - environmental conditions:
        - frequent checks are needed in extreme heat or cold to ensure chocks stay in place
    - inclines:
        - multiple chocks may be necessary to secure aircraft on slopes
- Ground power unit (GPU):
    - aircraft compatibility:
        - match the GPU's power output to the aircraft's needs to avoid system damage
    - positioning:
        - keep the GPU a safe distance from the aircraft to prevent accidental damage
    - extreme temperatures:
        - monitor GPU performance in extreme heat or cold
- Air start unit (ASU):
    - aircraft specific connections:
        - ensure correct connections and pressure settings to avoid damaging the aircraft's engines
    - wind and weather:
        - secure connections and positioning in high winds

    - proximity:
        - keep hoses properly aligned and avoid placing the unit too close to aircraft engines
- Brake cooling fans:
    - duration:
        - use only for manufacturer-recommended durations to avoid damage to an aircraft's braking system
    - safety:
        - ensure the area is free of FOD when operating the fans
- Headsets and communication devices:
    - interference:
        - weather conditions can interfere with communication so have backup methods in place
    - proper use:
        - all personnel must be trained to ensure clear communication during operations like pushback or marshalling
- Aircraft marshalling wands:
    - visibility:
        - use highly visible wands such as LEDs in low visibility or nighttime conditions
    - weather conditions:
        - extra personnel may be needed in severe weather to ensure pilots can see the marshalling signals
- Aircraft jack:
    - weight and balance:
        - ensure proper stabilisation and placement of the jack at approved lift points
    - environmental conditions:
        - use reinforcement on soft or uneven surfaces to prevent sinking or instability
    - wind conditions:
        - high winds can make aircraft lifting hazardous, especially for larger planes
- Brake temperature monitoring:
    - aircraft-specific guidelines:

        - follow manufacturer's guidelines for cooling times, particularly for large jets
    - heat management:
        - hotter climates may require extended brake cooling measures
- Aircraft towing dollies:
    - weight restrictions:
        - ensure dollies are matched to the weight of the aircraft component to avoid damage
    - surface conditions:
        - reduce speed on uneven or rough surfaces to prevent component or dolly damage

Defects on specialist equipment

- Towbars:
    - bent shafts
    - damaged coupling pins
    - worn shear pins
- Tractors:
    - engine malfunctions
    - hydraulic leaks
    - brake failures
    - tire wear
- GPUs:
    - voltage fluctuations
    - damaged cables
    - cooling system issues
    - battery degradation
- ASUs:
    - pressure leaks

    - hose wear
    - compressor malfunctions
- Brake cooling fans:
    - damaged blades
    - motor failures
    - electrical issues
- Headsets and communication devices:
    - microphone/speaker issues
    - signal interference
    - connector wear
- Marshalling wands:
    - battery failure
    - broken handles
    - light/LED malfunction
- Wheel chocks:
    - cracks
    - surface wear
    - deformation
- Aircraft jack:
    - hydraulic leaks
    - bent shafts
    - rust
- Towing dollies:
    - worn wheels
    - broken coupling mechanisms

- structural damage

Correct procedures for dealing with them

- Daily inspections
- Pre-use operational inspections and checks on tyres, brakes, lights, electronics
- Check fuel/battery levels
- Compliance with the Provision and Use of Work Equipment Regulations (PUWER)
- Follow SOPs and CAP 642 Airside Safety Management
- Post-use checks such as fuel and battery levels
- Use of unserviceable (US) tags or similar to indicate an issue
- Completion of paperwork to indicate a piece of equipment needs attention

Confirm the equipment has sufficient fuel/battery power

- Visual fuel gauge or battery level check
- Physical fuel/battery inspection
- Following pre-operational checklists
- Monitoring fuel/battery levels during operation
- Refuelling or recharging if necessary
- Report any issues such as:
  - incorrect gauge readings
  - unexpected power drops
  - warning lights

Provision and use of work equipment regulations (PUWER)

- Work equipment must be suitable for its intended use
- Equipment must be maintained and in safe condition
- Equipment must have appropriate safety features

- Employees must be provided with adequate training and instruction on the safe use of equipment
- Regular inspections and testing must be carried out to ensure equipment remains in working order

Responsibility

- Employers and airport operators
- Equipment manufacturers and suppliers
- Operators/ground staff
- Regulatory bodies

Types of support

- Technical support:
    - maintenance/repair crews
- Operational support:
    - replacement equipment
    - alternative arrangements
- Logistical support:
    - spare parts
    - transportation
- Safety/emergency support
- Customer service support

Aircraft/vehicle guidance signals

- Start engines
- Cut/stop engines
- Emergency stop
- Slow down
- Proceed
- Turn left/right

- Hold position
- Chocks inserted/removed
- Disconnect ground power
- Towbar disconnected
- Set/release brakes

Specific airport rules

- Follow airfield SOPs and by-laws
- Adhere to speed limits indicated on roadways
- Adhere to road signs and traffic lights
- General safety:
    - equipment must be parked in designated areas with brakes/chocks applied
    - ensure equipment is away from aircraft and secured to avoid unintended movement
    - turn off and disconnect battery-operated/powered equipment when not in use

Additional measures that must be taken during extreme weather and severe winds

- Extreme weather procedures:
    - secure all raised equipment and store loose items in high winds
    - secure or remove items that may become airborne or hazardous in storms
    - ensure all equipment lights are functioning in low visibility or rain
    - de-ice and clear equipment and apply anti-slip measures in snow/ice conditions
    - cease all operations involving refuelling and electrical equipment and disconnect equipment from aircraft during thunderstorms
- Slows down the operation
- Requirements to follow low-visibility procedures when initiated

- Preparing for and adhering to winter operations procedures, bulletins and training
- Reduction of speed limits
- Use of snow ploughs to clear roadways and access points when necessary
- Wearing additional PPE
- Use of lights on vehicles/equipment
- Effect of extreme heat on driving surfaces

Push back aircraft		
Knowledge	**Skills**	
Procedures and processes for pushing back an aircraft within the responsibilities of own role	Follow the correct procedures for preparing to push back, and pushing back an aircraft	
On-demand test		
Indicative assessment criteria		
PA1 Describe the **capabilities and characteristics** of aircraft, pushback vehicles and associated equipment **PA2** Describe the **key features of stand and airfield layout** that affect pushback operations **PA3** Describe organisational **pushback procedures** **PA4** Describe **aircraft walk-around procedures** related to push back **PA5** Describe organisational **emergency procedures**		
Practical observation		
Pass criteria	**Merit criteria**	***Distinction criteria***
PA6 Arrived punctually **PA7** Dressed in the correct PPE for the environment **PA8** Suitably trained with awareness of specialisation **PA9** Select the correct equipment for the task **PA10** Carry out pre-use checks correctly in accordance with reference cards **PA11** Following standard operating procedures to complete the task **PA12** Secure equipment on completion	**PA13** Able to recognise potential hazards, e.g. obstacles, weather restraints and spillages **PA14** Ensuring planned route is safe and clear **PA15** Ensuring equipment is safely secured for further use	***PA16** Able to overcome potential hazards, e.g. obstacles, weather restraints and spillages to move the aircraft in a safe and expeditious manner*

Amplification and guidance

Capabilities and characteristics
• Aircraft capabilities:
  ○ size and weight:
  ▪ larger aircraft require more powerful pushback vehicles and greater manoeuvring space
  ○ steering systems:
  ▪ understanding nose wheel steering limits is crucial to avoid damage
  ○ engine and auxiliary power unit (APU):
  ▪ awareness of engine placement/height, APU operation and brake conditions ensures safe handling
  ○ balance and centre of gravity:
  ▪ knowing the aircraft's centre of gravity helps in understanding its movement behaviour during pushback
• Pushback vehicle characteristics:
  ○ conventional towbar vehicles:
  ▪ require manual towbar attachment and offer powerful towing
  ○ towbarless vehicles:
  ▪ lift the nose gear off the ground, more efficient, faster and offer precise control
  ○ power and speed:
  ▪ pushback vehicles vary in power and speed with diesel and electric options available
 	
Key features of stand and airfield layout
• Stand layout:
  ○ stand types:
  ▪ contact, remote and angled stands affect space and manoeuvrability
  ○ size and markings:
  ▪ clear markings (centreline, stop line) and leaving ample space aid with aircraft positioning

    - air bridges and GSE:
        - pushback operations need to avoid obstructions like air bridges and GSE
- Head of stand safe docking systems
- Road markings and layouts such as speed limits or give way
- Airfield layout:
    - taxiways:
        - proximity and width of taxiways affect how far and precisely the aircraft must be pushed back
    - taxiway lights:
        - helps to guide the pushback vehicle during low visibility and night operations
    - runway zones:
        - awareness of runway incursion zones is crucial for avoiding entering restricted areas without ATC clearance

Pushback procedures

- Pre-pushback preparations:
    - communication with the flight crew and ATC
    - system checks to ensure the parking brake and engines are off
    - towbar/tractor attachment and clearance of GSE
- Initiating pushback:
    - slow and controlled movement
    - keep the aircraft aligned with the centreline of the stand
- Turning and aligning the aircraft:
    - gradual turns to avoid stressing the nose gear
    - align the aircraft with the taxiway centreline or designated position
- Completing pushback:
    - ensure the pilot applies the parking brake before disconnecting the pushback vehicle
    - safely disconnect the towbar/release the nosewheel

- Engine start:
    - the flight deck starts the engines after pushback and after the ground crew is clear
- Post-pushback checks:
    - clear all GSE near the aircraft
    - conduct a visual check for damage or obstructions
- In the event of emergency procedures:
    - stop immediately and apply the brakes
    - inform the flight crew and ATC of any issues

Aircraft walk-around procedures

- Inspect:
    - nose and forward section
    - left wing and engine
    - left main landing gear
    - aft section (tail section, APU)
    - right main landing gear
    - right wing and engine
    - cargo doors and panels
- Common issues include:
    - hydraulic or fuel leaks
    - worn tires
    - obstructed sensors
    - improperly secured panels

Emergency procedures

- Ground crew issue:

- stop pushback, communicate with flight deck and assess situation

- Loss of communication:
  - stop pushback and use hand signals or backup communication systems
- Towbar or tug failure:
  - stop the tug, inform the flight crew and repair/replace the equipment
- Fire:
  - stop pushback, use fire extinguishers, alert emergency services and evacuate personnel
- Aircraft emergency:
  - halt pushback, inform the flight crew and assist with necessary safety measures
- Obstruction/foreign object debris (FOD):
  - stop pushback, clear the obstruction and inspect for damage before resuming
- Adverse weather:
  - halt operations in severe weather; assess wind/lightning/icy conditions before proceeding

Tow aircraft		
Knowledge	**Skills**	
The organisation's procedures and processes for towing an aircraft within the responsibilities of own role	Follow correct procedures to prepare for and when towing aircraft	
Professional discussion		
Indicative assessment criteria		
TA1 Describe different types of ground equipment and their suitability for the aircraft to be towed **TA2** Describe the limitations and characteristics of aircraft during towing **TA3** Describe the implications of the weather, particularly ice, snow and high winds on the tow **TA4** Describe the **key features of stand and airfield layout** that affect towing operations **TA5** Identify relevant airfield signs, markings and speed restrictions **TA6** Describe organisational towing procedures including the minimum personnel requirements **TA7** Describe aircraft walk-around procedures related to towing **TA8** Describe organisational emergency procedures related to towing aircraft		
Practical observation		
Pass criteria	**Merit criteria**	**Distinction criteria**
TA9 Arrived punctually **TA10** Dressed in the correct PPE for the environment **TA11** Suitably trained with awareness of specialisation **TA12** Select the correct equipment for the task **TA13** Carry out pre-use checks correctly in accordance with reference cards **TA14** Following standard operating procedures to complete the task	**TA16** Able to recognise potential hazards, e.g. obstacles, weather restraints and spillages **TA17** Ensuring planned route is safe and clear **TA18** Ensuring equipment is safely secured for further use	**TA19** Able to overcome potential hazards, e.g. obstacles, weather restraints and spillages, to move the aircraft in a safe and expeditious manner

TA15 Secure equipment on completion		
Amplification and guidance		

Key features of stand and airfield layout

- Stand layout:
  - stand types:
    - contact, remote and angled stands affect space and manoeuvrability
  - size and markings:
    - clear markings (centreline, stop line) and leaving ample space aid with aircraft positioning
  - air bridges and GSE:
    - pushback operations need to avoid obstructions like air bridges and GSE
- Airfield layout:
  - taxiways:
    - proximity and width of taxiways affect how far and precisely the aircraft must be pushed back
  - taxiway lights:
    - helps to guide the pushback vehicle during low visibility and night operations
  - runway zones:
    - awareness of runway incursion zones is crucial for avoiding entering restricted areas without ATC clearance
- Traffic flow and congestion:
  - busy traffic:
    - multiple aircraft moving at once requires coordination with ATC and other aircraft
  - wingtip clearance:
    - ensuring sufficient space between aircraft during pushback
- Obstructions and hazards:
  - ground obstacles
  - environmental conditions:

        - weather and slippery surfaces can impact vehicle handling during pushback
- Aircraft size and stand compatibility:
    - larger aircraft need more space and special considerations such as:
        - longer pushback distances
        - more powerful towing vehicles

Ensuring a hazard free airside environment	
Knowledge	**Skills**
Reducing risks and hazards from operating aircraft and vehicles airside and what procedures and processes are used to deal with an airside emergency	Work with the team in reducing the risks and hazards from operating aircraft and vehicles airside, implementing procedures and processes to deal with an airside emergency
On-demand test	
Indicative assessment criteria	
EH1 Describe organisational and **regulatory requirements relating to airfield safety** **EH2** Identify possible **hazards and threats to aircraft** **EH3** Describe the **standard of lighting** which should be provided on aprons **EH4** Describe how to maintain **the separation of people and aircraft** **EH5** Describe **how to reduce risks** to people, aircraft and equipment **EH6** Describe how to wear and the effectiveness of **personal protective equipment (PPE)** **EH7** Describe **safety practices for parking aircraft** **EH8** Describe organisational, regulatory and personal requirements relating to airfield **emergency procedures** and equipment	
Practical observation	
Pass criteria	**Merit criteria** / ***Distinction criteria***
EH9 Arrived punctually **EH10** Dressed in the correct PPE for the environment **EH11** Identify types of hazard **EH12** Conduct FOD plod, safely and effectively **EH13** React to potential hazardous situations, such as FOD intake, crash on impact	**EH14** Communicate hazards/potential hazards to the appropriate level ***EH15*** *Rectify hazards, such as clearing FOD, reporting actions taken to the appropriate authority*

Amplification and Guidance

Regulatory requirements relating to airfield safety
• International Civil Aviation Organisation (ICAO) standards
• UK national regulations:
  ○ Civil Aviation Act – framework for airport operations
  ○ Air Navigation Order – rules on ground vehicle operation and airfield safety
  ○ CAP 642 – airside safety management, FOD control and marshalling guidelines
  ○ CAP 790 – requirement for an airside driving permit
• Health and Safety at Work etc. Act
• Manual Handling Regulations
• Dangerous Goods Regulations
• Follow airport by-laws
 	
Hazards and threats to aircraft
• Foreign object debris (FOD)
• Weather-related hazards
• Improperly secured aircraft
• Airfield congestion (taxiways, runways)
• Equipment malfunction
• Incorrect load distribution
• Aircraft system failures
• Fuel spills and hazardous material handling
• Runway incursions
 	
Standard of lighting
• ICAO standards Annex 14:
  ○ uniform lighting distribution across the apron to avoid dark spots or shadows
  ○ adequate vertical illumination to ensure visibility of aircraft and personnel
• Civil Aviation Authority (CAA) Guidelines CAP 168:

    - proper positioning of lighting masts to reduce glare for pilots and personnel
    - high colour rendering to differentiate objects, markings and safety hazards
- Operational considerations:
    - control of light spill to prevent glare on nearby taxiways/runways
    - backup power supply for continuous illumination during outages
    - weather-resistant and regularly maintained lighting fixtures
- Environmental efficiency:
    - use of LED lights for energy efficiency and longevity
    - implementation of motion sensors and dimming systems for optimised energy usage
- Health and safety:
    - enhanced visibility of PPE and ground staff
    - clear identification of obstacles and potential hazards during operations

The separation of people and aircraft

- Adherence to safety zones and ground markings:
    - follow clearly marked safety zones and restricted areas around aircraft
    - access control
    - painted lines and symbols
- Use of safety equipment and signage
- Training and awareness
- Monitoring aircraft movement and positioning in relation to people
- Maintaining clear zones around engines and operate service equipment safely

How to reduce risks

- Implement and follow standard operating procedures (SOPs)
- Conduct regular training and drills
- Ensure effective communication with colleagues
- Monitor and maintain equipment
- Enforce safety and security measures

- Manage aircraft and equipment movements safely
- Adapt to weather conditions

Personal protective equipment (PPE)

- High-visibility clothing
- Safety footwear
- Hearing protection
- Gloves
- Safety glasses/goggles

Safety practices for parking aircraft

- Pre-parking preparation:
    - check parking clearance and communicate with ground crew
    - verify that there are no obstructions in the stand area
- Marshallers and signage:
    - use standardised hand signals and ground markings
    - ensure the visibility of marshallers and adherence to safety signs
- Aircraft parking procedures:
    - align the aircraft, apply parking brakes and shut down the engines
- Safety and security measures:
    - use wheel chocks and secure towing equipment
    - implement access control and conduct security checks
- Handling special aircraft:
    - provide extended clearance for large aircraft
    - follow special procedures for aircraft with unique requirements
- Post-parking procedures:
    - perform final checks and complete documentation
    - properly stow ground equipment and place safety barriers

Emergency procedures

- Ground crew issue:
  - stop pushback, communicate with flight deck and assess situation
- Loss of communication:
  - stop pushback and use hand signals or backup communication systems
- Towbar or tug failure:
  - stop the tug, inform the flight crew and repair/replace the equipment
- Fire:
  - stop pushback, use fire extinguishers, alert emergency services and evacuate personnel
- Aircraft emergency:
  - halt pushback, inform the flight crew and assist with necessary safety measures
- Obstruction/foreign object debris (FOD):
  - stop pushback, clear the obstruction and inspect for damage before resuming
- Adverse weather:
  - halt operations in severe weather; assess wind/lightning/icy conditions before proceeding

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Assessment summary

The end-point assessment for Aviation Ground Operative - Aircraft Movement is made up of 3 components:

1. 2 x 60-minute on-demand tests, each consisting of 30 scenario-based questions
2. A 1-hour practical observation
3. A 30-minute professional discussion

The assessments can be taken in any order.

As an employer/training provider, you should agree a plan and schedule with the apprentice to ensure all assessment components can be completed effectively.

Each component of the end-point assessment will be assessed against the appropriate criteria laid out in this guide, which will be used to determine a grade for each individual component.

On-demand tests

The core test is **not** graded above a **pass**

- To achieve a **pass,** apprentices must achieve 18 out of 30

The specialist test is graded pass/merit/distinction

- To achieve a **pass**, apprentices must achieve 18 out of 30
- To achieve a **merit**, apprentices must achieve 21 out of 30
- To achieve a **distinction**, apprentices must achieve 24 out of 30

Practical observation

- To achieve a **pass** in the practical observation, **all** pass criteria must be achieved
- To achieve a **merit** in the practical observation, the apprentice must achieve **all** of the pass criteria and achieve **at least 5** of the 7 core merit criteria and **all** of the aircraft movement merit criteria
- To achieve a distinction in the practical observation, the apprentice must achieve **all** of the pass criteria, **all** of the merit criteria and **all** of the distinction criteria

Professional discussion

The professional discussion is **not** graded above a **pass**

- To achieve a **pass** in the professional discussion, **all** of the pass criteria must be achieved
- Additionally, any practical observation pass criteria **not** covered by the selected scenario will need to be covered

Grading

The specialist function on-demand test and the practical observation are both graded pass/merit/distinction. The core knowledge on-demand test and the professional discussion are not graded above a pass. The table below demonstrates the different grading combinations and the resulting overall grade.

A grade of at least a pass must be achieved in all 4 assessments.

Core knowledge on-demand test	Professional discussion	Specialist function on-demand test	Practical observation	Overall grade
Pass	Pass	Pass	Pass	**Pass**
Pass	Pass	Pass	Merit	**Pass**
Pass	Pass	Pass	Distinction	**Merit**
Pass	Pass	Merit	Pass	**Pass**
Pass	Pass	Merit	Merit	**Merit**
Pass	Pass	Merit	Distinction	**Merit**
Pass	Pass	Distinction	Pass	**Merit**
Pass	Pass	Distinction	Merit	**Merit**
Pass	Pass	Distinction	Distinction	**Distinction**

Retake and resit information

Apprentices must pass all assessment activities to pass the apprenticeship overall. Should an apprentice fail 1 assessment activity, then this can be retaken without a further period of training and development. If the apprentice fails 2 or more activities a period of further training and development lasting a minimum of 2 months must take place before a resit.

There is no maximum number of times an apprentice can be assessed; however, a maximum of 2 attempts at each assessment activity can be made in any 90-day period.

If the professional discussion is **not** passed at the first attempt, the overall grade will be capped at a **pass**.

When undertaking a resit or retake, the assessment method(s) will need to be re-attempted in full, regardless of any individual assessment criteria that were passed on any prior attempt. The EPA Report will contain feedback on areas for development and resit or retake guidance and a retake checklist to be submitted when the professional review has taken place.

Apprentices who achieve a pass grade cannot resit or retake the EPA to achieve a higher grade.

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Assessing the on-demand tests

The following knowledge areas of the Aviation Ground Operative - Aircraft Movement standard will be assessed by 2 on-demand tests. The core on-demand test consists of 30 scenario-based questions and will last for **60 minutes**. The pass mark is **18 out of 30**. The core on-demand test is not graded above a pass. The specialist function on-demand test consists of 30 scenario-based questions and will last for **60 minutes**. The **pass** mark is **18 out of 30**, the **merit** mark is **21 out of 30** and the **distinction** mark is **24 out of 30**.

The topics covered within the core knowledge test are listed below.

- Safety
- Security
- Compliance & legislation
- Communication
- Disruption incidents & emergencies
- Dangerous goods

The topics covered within the aircraft movement specialist knowledge test are listed below.

- Operate aviation specialist equipment
- Push back aircraft
- Ensuring a hazard free airside environment

In each paper, questions will cover each of the areas above; however, not every aspect of every area will be covered in every test.

Before the assessment

- While on-programme, the employer/training provider should brief the apprentice on the areas to be assessed by the on-demand test
- In readiness for end-point assessment, the apprentice should complete a mock test

Mock examinations and practice assessments for both the core and aircraft movement on-demand tests are available in both paper and on-screen format from the Highfield Assessment website.

On-demand tests criteria

The following pages include the criteria that are covered by the **core** on-demand test.

Safety
SA1 Understand how to act within standard operating procedures at all times
SA2 Identify legislation and organisational procedures covering health and safety
SA3 Identify the location and the hazards associated with the ramp/dispersal area
SA4 Understand the health, safety and hazards associated with aircraft handling
SA5 Identify surface markings, operating and emergency areas for aircraft, vehicles and pedestrians on the ramp area
SA6 Identify personal protective equipment (PPE) and describe when to wear it
SA7 Describe dangers from foreign object debris (FOD) and the importance of keeping areas clean and tidy at all times
SA8 Describe dangers from birds and other wild animals and the importance of ensuring that the area does not attract them
SA9 Describe how to use equipment and vehicles on the ramp area
SA10 Outline the benefits of safe working practices
SA11 Identify the consequences of not operating safely in an airport environment
SA12 Identify the main causes of incidents/accidents in an airport
SA13 Identify hazardous materials and outline the procedures for using them
SA14 Describe procedures for reporting incidents/accidents airside
SA15 Describe the effects of severe weather airside and the precautions to take

Security
SE1 Identify signs of suspicious behaviour
SE2 Outline the limits of your authority
SE3 Identify specified, banned, illegal and dangerous items
SE4 Explain threat or risk awareness
SE5 Identify relevant aviation security documents
SE6 Identify relevant aviation security authorities
SE7 Outline your responsibility in relation to security
SE8 Outline your organisation's procedures for restricting access

Compliance & legislation
CL1 Explain the requirements for compliance in the aviation environment
CL2 Outline procedures that must be followed to ensure compliance
CL3 Explain the impact of not following procedures and ensuring compliance
CL4 Explain the impact of the aviation operation on the environment
CL5 Identify environmental controls in the aviation operation

Communication
CO1 Describe available lines and methods of communication **CO2** Identify relevant communications equipment and explain organisational procedures relating to its use **CO3** Explain organisational procedures regarding malfunctioning equipment **CO4** Identify relevant aviation guidelines, procedures and standard phrases **CO5** Identify commonly used aviation codes relevant to your job role and sources of information for less commonly used codes **CO6** Know the phonetic alphabet **CO7** Explain the difference between confidential and commercially sensitive information, and describe your organisation's systems for processing and storing this information **CO8** Explain organisational procedures for passing on messages and alternative communication routes in the event of an equipment failure **CO9** Manage requests for information from: seniors, colleagues or external sources

Disruption incidents & emergencies
DI1 Get help to identify an incident/emergency and be able to describe its main features **DI2** Know how the incident/emergency affects you and other people **DI3** Know how people would like to be informed about the progress and solution of the incident/emergency **DI4** Identify problem-solving methods that can be adopted to address the incident/emergency **DI5** Identify factors that may affect the way you deal with the incident/emergency **DI6** Identify which people could help you resolve the incident/emergency **DI7** Outline rules and regulations that you have to consider when solving the incident/emergency **DI8** Know how to overcome difficulties when solving incidents/emergencies **DI9** Follow a plan that takes into account any issues that may arise **DI10** Explain how you will know when an incident/emergency has been resolved **DI11** Know how to access additional support available post-incident

Dangerous goods
DG1 Acknowledge and understand the general principles of storage, carriage and handling of dangerous goods **DG2** Identify classifications of dangerous goods **DG3** Explain dangerous goods handling requirements **DG4** Explain the emergency procedures in the event of a dangerous goods incident

The following pages include the criteria that are covered by the **aircraft movement** on-demand test.

Operate aviation specialist equipment
OA1 Identify pieces of specialist equipment and which tasks/aircraft types they are suitable for **OA2** Describe any special conditions of use for specialist equipment at the location **OA3** Describe the types of defects on specialist equipment and the correct procedures for dealing with them **OA4** Explain how to confirm the equipment has sufficient fuel/battery power for the task (if motorised equipment) **OA5** Describe how the regulations in place (Provision and use of work equipment regulations (PUWER) or equivalent) are met by the organisation **OA6** Explain who has overall responsibility for ensuring equipment is safe to operate **OA7** Identify the types of support that may be needed in the event of a breakdown **OA8** Describe the correct aircraft/vehicle guidance signals in line with organisational procedures **OA9** Describe the specific airport rules relating to leaving equipment in a safe and secure mode, and the additional measures that must be taken during extreme weather and severe winds

Push back aircraft
PA1 Describe the capabilities and characteristics of aircraft, pushback vehicles and associated equipment **PA2** Describe the key features of stand and airfield layout that affect pushback operations **PA3** Describe organisational pushback procedures **PA4** Describe aircraft walk-around procedures related to push back **PA5** Describe organisational emergency procedures

Ensuring a hazard free airside environment
EH1 Describe organisational and regulatory requirements relating to airfield safety **EH2** Identify possible hazards and threats to aircraft **EH3** Describe the standard of lighting which should be provided on aprons **EH4** Describe how to maintain the separation of people and aircraft **EH5** Describe how to reduce risks to people, aircraft and equipment **EH6** Describe how to wear and the effectiveness of personal protective equipment (PPE) **EH7** Describe safety practices for parking aircraft **EH8** Describe organisational, regulatory and personal requirements relating to airfield emergency procedures and equipment

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Assessing the practical observation

Each observation will last **1 hour** and the apprentices will not know in advance which scenario or task they will be given on the day of their assessment. Due to the safety and security required, particularly when an external visitor is required to go airside, the end-point assessor will confirm the assessment activities with the employer between 7 and 14 days in advance of the assessment.

As part of best observation practice the assessor will ask questions appropriate to the observation to further clarify knowledge and understanding and evidence behaviours. Questioning should be conducted at an appropriate time and not interfere with the completion of the tasks being observed. If necessary, questions can be asked after the observation has been completed.

Each scenario covers a different selection of the standard's elements and Highfield Assessment have designed detailed tools and procedures carefully in order to ensure all apprentices are assessed to the same level. Multiple apprentices in the same workplace will be tested over a range of the 3 scenarios and not all complete the same one.

The practical assessment is an observation of the apprentice in the aviation environment and may include real work activities such as loading an aircraft, or simulated activities such as extinguishing an aircraft fire, allowing the apprentice to demonstrate how they have applied their knowledge, skills and behaviours in a real work environment to achieve genuine and demanding work objectives. Areas covered in the scenarios not selected for the observation will be covered in the professional discussion.

The practical observation provides the opportunity for substantial synoptic assessment against the relevant elements of the standard. The observation must be scheduled when the apprentice will be working in their normal place of work and will also:

- be conducted at a time that avoids seasonal periods of low levels of trading and reflects typical working conditions
- allow the apprentice to demonstrate all aspects of the standard being observed (for example, the apprentice cannot be assessed on loading an aircraft if there is no load available)
- take a synoptic approach to observing the overall competence

The end-point assessor will plan the observation in advance with the employer, brief the apprentice fully on the day, and follow assessment criteria that are set by Highfield, which will be subject to quality assurance. The observation must be carried out in one session.

Practical observation assessment criteria for the core and aircraft movement elements of the standard are detailed in the section below.

Grading the practical observation

Apprentices will be marked against the pass, merit and distinction criteria included in the tables on the following pages (under 'Practical observation criteria').

- To achieve a **pass** in the practical observation, **all** pass criteria must be achieved
- To achieve a **merit** in the practical observation, the apprentice must achieve **all** of the pass criteria and achieve **at least 5** of the 7 core merit criteria and **all** of the aircraft movement merit criteria
- To achieve a distinction in the practical observation, the apprentice must achieve **all** of the pass criteria, **all** of the merit criteria and **all** of the distinction criteria

Before the assessment:

Employers/training providers should:

- plan potential practical observation scenarios to allow the apprentice the opportunity to demonstrate each of the required assessment criteria
- ensure the apprentice knows the date, time and location of the assessment
- ensure the apprentice knows which criteria will be assessed in each scenario (outlined on the following pages)
- encourage the apprentice to reflect on their experience and learning on-programme to understand what is required to meet the standard
- be prepared to provide clarification to the apprentice, and signpost them to relevant parts of their on-programme experience as preparation for this assessment

Specialist function scenarios - Aircraft Movement

1. Operate specialist aviation equipment:

Observation of learner operating specialist equipment in an aviation environment ensuring they carry out a pre-use inspection, carry out a function check and are able to refuel/recharge the equipment as required. Operate the specialist equipment in line with the specific training for the equipment and move the equipment into position safely, seeking guidance when manoeuvring the equipment around any obstructions or near an aircraft.

2. Push back/tow aircraft:

Observe the learner completing an aircraft move ensuring they are wearing the correct personal protective equipment (PPE) appropriate for the weather conditions, that they connect and disconnect the equipment from the aircraft correctly and recognise when a safety person is required during aircraft movement. They must leave aircraft positioned safely, ensuring that clearances are adhered to and connect and disconnect equipment to aircraft following organisational procedures.

3. Ensuring a hazard free airside environment:

Observe the learner take action in response to identified airside hazards usually conducting a Foreign Object Debris search and making sure that work practices do not increase the risk of airside hazards. Report accidents, incidents and near misses in line with organisational procedures.

Practical observation - mock assessment

It is the employer/training provider's responsibility to prepare apprentices for their end-point assessment, and Highfield recommend that the apprentice experiences a mock practical observation in preparation for the real thing. The most appropriate form of mock assessment will depend on the apprentice's setting and the resources available at the time.

When designing a mock assessment, the employer/training provider should include the following elements in its planning:

- the mock practical observation should take place in a real workplace, or a realistic simulation if the real workplace does not present all the required assessment opportunities
- the participation of other personnel to play the parts of customers and team members:
    - it is strongly recommended that the mock observation has been practised beforehand and all personnel involved are properly briefed on their roles
    - the roles should provide the opportunity for the apprentice to demonstrate the pass, merit and distinction level criteria
- a 1-hour time slot should be available for the complete practical observation, if it is intended to be a complete mock observation covering all relevant standards; however, this time may be split up to allow for progressive learning
- consider a video recording of the mock assessment, and allow it to be observed by other apprentices, especially if it is not practicable for the employer/training provider to carry out a separate mock assessment with each apprentice
- ensure that the apprentice's performance is assessed by a competent trainer/assessor, and that feedback is shared with the apprentice to complete the learning experience; the mock assessment sheets may be used for this purpose and are available to download from the Highfield Assessment website

Practical observation criteria

During the practical observation, the following standards should be evidenced. The apprentice can only achieve a merit by covering all pass and all merit criteria for the observation scenario they have been assigned. The apprentice can only achieve a distinction by meeting the above conditions for a merit, and in addition, covering all distinction criteria for the scenario they have been assigned.

Core assessment criteria

Safety
To pass, the following must be evidenced
SA16 Correctly report hazards if identified **SA17** Act within standard operating procedures at all times
To gain a merit, the following must be evidenced
SA18 Take action to deal with hazards in line with organisational procedures
To gain a distinction, the following must be evidenced
There are no distinction criteria for this component

Compliance & legislation
To pass, the following must be evidenced
CL6 Check area of responsibility complies with procedures and legislative requirements
To gain a merit, the following must be evidenced
CL7 Take action to correct non-compliance
To gain a distinction, the following must be evidenced
CL8 *Proactively ensure compliance with procedures and legislation, e.g. challenge suspicious persons*

Communication
To pass, the following must be evidenced
CO10 Communicate with the right people at the right time using the correct method **CO11** Ensure communication is received and understood **CO12** Ensure all communications are timely and accurate
To gain a merit, the following must be evidenced
CO13 Adapt language and tone to match audience and situation
To gain a distinction, the following must be evidenced
CO14 *Ensure all communications are effective and understood, anticipating additional appropriate information requirements and liaising with key people to facilitate ongoing information flow*

Inter-personal skills
To pass, the following must be evidenced
IP12 Work as part of a team to ensure adequate performance in the role **IP13** Work accurately with supervision
To gain a merit, the following must be evidenced
IP14 Take initiative as part of a team to improve performance in the role within limits of operation **IP15** Work accurately with minimal supervision
To gain a distinction, the following must be evidenced
There are no distinction criteria for this component

Aviation systems
To pass, the following must be evidenced
AS1 Use prescribed systems correctly **AS2** Report faults or errors as they occur **AS3** Meet performance expectation for timescales to complete tasks
To gain a merit, the following must be evidenced
AS4 Take action to maintain systems to prevent faults or errors **AS5** Work efficiently to meet and exceed timescales to complete tasks
To gain a distinction, the following must be evidenced
AS6 *Organise and prioritise work to make the most efficient use of time and complete core and relevant additional tasks within timescales*

Specialist function assessment criteria

Scenario 1

Operate aviation specialist equipment
To pass, the following must be evidenced
OA10 Arrived punctually **OA11** Dressed in the correct PPE **OA12** Suitably trained with awareness of specialisation **OA13** Select the correct equipment for the task **OA14** Carry out pre-use checks correctly in accordance with reference cards **OA15** Following standard operating procedures to complete the task **OA16** Operate equipment safely
To gain a merit, the following must be evidenced
OA17 Thorough knowledge of the task **OA18** Identify potential hazards on the equipment **OA19** Correct notification procedures of equipment defects
To gain a distinction, the following must be evidenced
OA20 *Able to explain the task in depth* ***OA21*** *Identify, report and follow through rectification procedures*

Scenario 2

Push back aircraft
To pass, the following must be evidenced
PA6 Arrived punctually
PA7 Dressed in the correct PPE for the environment
PA8 Suitably trained with awareness of specialisation
PA9 Select the correct equipment for the task
PA10 Carry out pre-use checks correctly in accordance with reference cards
PA11 Following standard operating procedures to complete the task
PA12 Secure equipment on completion
To gain a merit, the following must be evidenced
PA13 Able to recognise potential hazards, e.g. obstacles, weather restraints and spillages
PA14 Ensuring planned route is safe and clear
PA15 Ensuring equipment is safely secured for further use
To gain a distinction, the following must be evidenced
PA16 *Able to overcome potential hazards, e.g. obstacles, weather restraints and spillages to move the aircraft in a safe and expeditious manner*

Tow aircraft
To pass, the following must be evidenced
TA9 Arrived punctually
TA10 Dressed in the correct PPE for the environment
TA11 Suitably trained with awareness of specialisation
TA12 Select the correct equipment for the task
TA13 Carry out pre-use checks correctly in accordance with reference cards
TA14 Following standard operating procedures to complete the task
TA15 Secure equipment on completion

To gain a merit, the following must be evidenced
TA16 Able to recognise potential hazards, e.g. obstacles, weather restraints and spillages
TA17 Ensuring planned route is safe and clear
TA18 Ensuring equipment is safely secured for further use
To gain a distinction, the following must be evidenced
TA19 *Able to overcome potential hazards, e.g. obstacles, weather restraints and spillages to move the aircraft in a safe and expeditious manner*

Scenario 3

Ensuring a hazard free airside environment
To pass, the following must be evidenced
EH9 Arrived punctually
EH10 Dressed in the correct PPE for the environment
EH11 Identify types of hazard
EH12 Conduct FOD plod, safely and effectively
EH13 React to potential hazardous situations, such as FOD intake, crash on impact
To gain a merit, the following must be evidenced
EH14 Communicate hazards/potential hazards to the appropriate level
To gain a distinction, the following must be evidenced
EH15 Rectify hazards, such as clearing FOD, reporting actions taken to the appropriate authority

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Assessing the professional discussion

The end-point assessment plan states that the professional discussion will be a structured discussion between the apprentice and the end-point assessor. The employer may be present to support, but not lead, the apprentice and to confirm information at the assessor's request.

The professional discussion will take place either in person or via videoconference. This will be organised by Highfield's scheduling team once the apprentice has been submitted for gateway.

The employer will not be allowed to add any further information or examples to what the apprentice has stated or lead them in any way. Highfield would encourage the employer/training provider and the apprentice to plan for the professional discussion and consider what resources they may bring with them to support them during their professional discussion. This must be their own work and will only be used to support their discussion. The professional discussion should take place after the practical observation, to establish the apprentice's understanding and application of the remaining knowledge, skills and behaviours.

The professional discussion will need to take place in a suitable environment and will typically last for 30 minutes. The discussion will be against the set criteria that are outlined in the following pages and it will be appropriately structured to draw out the best of the apprentice's energy, enthusiasm, competence and excellence.

The professional discussion will recognise areas that have already been covered in the simulated practical observation so as not to reassess an area in which the apprentice has already demonstrated competence. The number of questions asked during the professional discussion will vary according to the breadth and depth of the answers given (and how many follow-on questions are required) but as a minimum there must be 15 questions asked to cover all the criteria requirements and give full opportunity for the apprentice to demonstrate all the requirements.

The purpose of the professional discussion is to clarify any questions the end-point assessor has for specified standards:

- confirm and validate judgements about the quality of work
- explore aspects of the work, including how it was carried out, in more detail
- discuss how the apprentice would behave in the scenarios not assigned
- ask questions in relation to personal development and reflection

Grading the professional discussion

The professional discussion is **not** graded above a **pass**. Apprentices will be marked against the pass criteria included in the tables on the following pages (under 'Professional discussion criteria').

- To achieve a **pass** in the professional discussion, **all** of the pass criteria must be achieved
- Additionally, any practical observation pass criteria **not** covered by the selected scenario will need to be covered

Before the assessment:

Employers/training providers should:

- plan the professional discussion to allow the apprentice the opportunity to demonstrate each of the required standards
- ensure the apprentice knows the date, time and location of the assessment
- ensure the apprentice knows which criteria will be assessed (outlined on the following pages)
- encourage the apprentice to reflect on their experience and learning on-programme to understand what is required to meet the standard
- be prepared to provide clarification to the apprentice, and signpost them to relevant parts of their on-programme experience as preparation for this assessment

Professional discussion - mock assessment

It is the employer/training provider's responsibility to prepare apprentices for their end-point assessment, and Highfield recommend that they experience a mock professional discussion in preparation for the real thing. The most appropriate form of mock assessment will depend on the apprentice's setting and the resources available at the time.

When designing a mock assessment, the employer/training provider should consider the following elements in their planning:

- a 30-minute time slot should be available for the complete professional discussion. If it is intended to be a complete mock assessment covering all relevant standards; however, this time may be split up to allow for progressive learning.
- consider an audio recording of the mock, and to allow the mock to be heard by other apprentices, especially if it is not practicable for the employer/training provider to carry out a separate mock assessment with each apprentice.
- ensure that the apprentice's performance is assessed by a competent trainer/assessor, and that feedback is shared with the apprentice, to complete the learning experience. The mock assessment sheets may be used for this purpose and are available to download from the Highfield Assessment website.
- structured 'open' questions should be used as part of the professional discussion which do not lead the candidate but allows them to express their knowledge in a calm and comfortable manner. Example questions that you can use for a mock assessment are listed below.
    - Security
        - Describe the procedures that must be followed to ensure security at your workplace
        - What are some potential security breaches that you may encounter, and how should you deal with them?
    - Inter-personal skills
        - How should you interact with your colleagues?
        - Tell me about your organisation's policies
    - Disruption incidents & emergencies
        - What information do you need when an incident occurs?
        - Tell me how about how you would deal with an incident
    - Dangerous goods
        - Tell me about how your organisation deals with dangerous goods
    - Tow aircraft
        - Tell me about the towing equipment that you use
        - Tell me about the layout and signage of the areas you work

Professional discussion criteria

Throughout the professional discussion, the assessor will review the apprentice's competence in all of the pass criteria outlined below. Therefore, apprentices should prepare for the professional discussion by considering how the criteria can be met.

Security
To pass, the following must be evidenced
SE9 Describe how to secure items, areas and data in line with your responsibilities **SE10** Describe your organisation's personal identification requirements **SE11** Identify reporting procedures for suspicious incidents or behaviour **SE12** Identify reporting procedures for discrepancies in the security of actual or potential access points **SE13** Describe how to ensure action is taken in response to an actual or suspected security threat **SE14** Describe the appropriate remedial actions to take when irregularities in security are identified

Inter-personal skills
To pass, the following must be evidenced
IP1 Explain the benefits of developing productive working relationships with colleagues **IP2** Explain how to address conflicts with colleagues **IP3** Describe how to deal with diversity issues **IP4** Outline how to receive and make use of feedback on your performance from colleagues **IP5** Identify the responsibilities of team members in own area **IP6** Outline the processes within the organisation for making decisions **IP7** Outline line management relationships within the organisation **IP8** Identify the organisation's aims, values and culture **IP9** Explain the standards of appearance, behaviour and performance expected in the organisation **IP10** Identify your organisation's guidelines for how to recognise what your customer wants, and respond appropriately **IP11** Respond to requests for information adhering to your organisation's standard timeliness

Disruption incidents & emergencies
To pass, the following must be evidenced
DI12 Interpret incidents/emergencies that have been identified **DI13** Ask suitable questions to check you understand the incident/emergency **DI14** Identify the available solution(s) for resolving the incident/emergency **DI15** Discuss and understand proposed solution(s) to the incident/emergency with others to identify the most suitable solution **DI16** Keep others fully informed about what is happening to resolve the incident/emergency **DI17** Check with others to ensure the incident/emergency has been resolved satisfactorily **DI18** Give clear reasons to others when the incident/emergency has not been resolved satisfactorily **DI19** Be engaged with the job role, remaining calm and assured throughout the working period **DI20** Be able to concentrate on the task in hand and not be distracted by problems **DI21** Prioritise all tasks to ensure effective time management and a calm approach to work

Dangerous goods
To pass, the following must be evidenced
DG5 Ensure dangerous goods are handled effectively in accordance with organisational procedures and responsibilities **DG6** Identify potential dangerous goods hazards **DG7** Operate safely when exposed to dangerous goods

Tow aircraft
To pass, the following must be evidenced
TA1 Describe different types of ground equipment and their suitability for the aircraft to be towed **TA2** Describe the limitations and characteristics of aircraft during towing **TA3** Describe the implications of the weather, particularly ice, snow and high winds on the tow **TA4** Describe the key features of stand and airfield layout that affect towing operations **TA5** Identify relevant airfield signs, markings and speed restrictions **TA6** Describe organisational towing procedures including the minimum personnel requirements **TA7** Describe aircraft walk-around procedures related to towing **TA8** Describe organisational emergency procedures related to towing aircraft

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