

## Aviation Operations Manager – Aircraft Movement Manager – Mock Mark Scheme (M-EPA-AOMAM4001)

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### Important information for centres

- Mark schemes for open-response exams are kept under constant review and are updated by the chief examiner as and when markers find alternative acceptable answers that should be included
- For all questions, alternative correct answers will be accepted and awarded marks

|    | Answer guide   | Max Marks                       |
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| Q1 | <b>You are reviewing team members’ performance ahead of their annual appraisals. Describe 2 situations in which team members may need your support to successfully complete their duties and how you may be able to help them, as recorded in their annual reports.</b>  | <b>10</b>                       |
|    | <p><b>Up to 2 marks each for describing suitable situations where team members may need support (max 4). 1 mark for a partial/incomplete answer</b></p> <p><u>Situations may include:</u><br/>           Deficient performance either through lack of experience/training or poor understanding of a task.<br/>           Personal problems at home or within the work environment affecting performance.<br/>           A situation whereby a team member requires additional time off for a personal reason, e.g. childcare.</p> <p><b>Up to 3 marks each for describing the ways in which you might support them (max 6). 1-2 marks for a partial/incomplete answer.</b></p> <p><u>Ways to support may include:</u><br/>           Conduct a training needs analysis and recommend for further training or mentoring – mentoring could be by the manager or other more experienced colleagues and will include reviews.<br/>           One-to-one sessions and benchmarking, possibly tests and standards checks; one-to-one sessions to help understand the nature of any personal issues.<br/>           The company may also have a contract with a service provider of counselling.<br/>           Consider flexible working patterns or part-time work and any leave left over – this would have to be assessed for the impact on the person and the rest of the team.</p> | <p><b>4</b></p> <p><b>6</b></p> |

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| Q2 | <p>The winter season is approaching, and you have been asked to provide a brief to your department, explaining the key equipment available to your department and the associated procedures used for keeping the operation running during cold weather operations. Identify 2 pieces of equipment and outline their role in relation to winter operations. State the key features of each, along with benefits of their use and any disadvantages if they were unavailable.</p>   | 10                                  |
|    | <p><b>Up to 2 marks each for identifying a piece of equipment and its role (max 4). 1 mark for a partial/incomplete answer.</b></p> <p><u>Types of equipment and descriptions:</u><br/>Equipment may include snow ploughs fitted to existing or dedicated vehicles e.g. Runway sweepers. Airfield De-icing Systems, with plough and/or boom functions, de-icing trailers, hand-held or small, towed units used on aircraft stands, De-icing vehicles for aircraft use, runway friction measurement devices. All to include some knowledge of the technical features of each piece of equipment, as applicable.</p> <p><b>1 mark for describing the key features of each piece of equipment (max 2)</b></p> <p><b>1 mark for describing the benefits of each piece of equipment (max 2)</b></p> <p><u>Key features &amp; benefits may include:</u><br/>Process by which a runway surface is cleared, swept/blown and de/anti-ice fluid is applied (may vary, but the sequence is to be observed). Timings and fluid quantities may be referred to in the procedures, especially with regard to the benefit of anti-icing before weather conditions deteriorate.</p> <p><b>1 mark for describing the disadvantages if the equipment became unavailable for each piece of equipment (max 2)</b></p> <p><u>Disadvantages if unavailable may include:</u><br/>Appreciation of disturbance to the entire operation, backlog of work areas to be cleared, loss to the operation of priority system (as locally appropriate), e.g. runway, main taxiways, ramp, hangar areas. Risks to personnel with untreated surfaces etc.</p> | <p>4</p> <p>2</p> <p>2</p> <p>2</p> |

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| Q3 | <p>You have been nominated by your organisation to be a member of your aerodrome's airport safety committee. You are proposing a new initiative to improve safety reporting and communication across all stakeholders and need to convince your colleagues of the benefits this will bring. Outline a suitable initiative and include a description of its benefits and how you plan to implement it.</p>   | 10 |
|    | <p>Up to 2 marks for outlining a suitable initiative. 1 mark for a partial/incomplete answer.</p>   | 2  |
|    | <p>Up to 4 marks for describing the benefits of the initiative. 1-3 marks for a partial/incomplete answer.<br/> <u>Benefits may include:</u><br/>         Sharing safety data would allow more detailed analysis to take place and allow the various organisations to understand risks that may be unknown to them. By harnessing intelligence gathered from multiple organisations, a more proactive and, potentially predictive style of safety management may be possible. Other benefits may include opportunities for shared learning between organisations and the wider development of the continuous improvement process.</p> | 4  |
|    | <p>Up to 4 marks for explaining how it will be implemented. 1-3 marks for a partial/incomplete answer.<br/> <u>Implementation may include:</u><br/>         Using a forum of key stakeholders, which may wish to establish terms of reference, objectives and the scope of the initiative. A communication planned would be beneficial in order to be able to reach all personnel, and in a manner befitting their roles and work patterns. Objectives should be kept up-to-date and relevant, and be developed in line with the changing safety picture, and reflect personnel's real experiences in the workplace.</p>              | 4  |

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| <p><b>Q4</b></p> | <p><b>You have been nominated to host an inspection team from the regulatory authority.</b></p> <p><b>Describe 2 of the requirements of an aerodrome licence holder. (4 marks)</b></p> <p><b>Explain 2 of the conditions of holding a licence and describe a situation where additional oversight may be needed by the regulatory authority. (6 marks)</b></p>   | <p><b>10</b></p> |
|                  | <p><b>2 marks each for describing the requirements of a licence holder (max 4). 1 mark for a partial/incomplete answer.</b></p> <p><u>Requirements of a licence holder:</u></p> <p>Physical conditions of the manoeuvring area, apron and the environs of the aerodrome are acceptable; The scale of equipment and facilities are adequate for the flying activities which are expected to take place; an effective safety management system is in place; staff undertaking activities in relation to safety are competent and, where necessary, suitably qualified.</p> | <p><b>4</b></p>  |
|                  | <p><b>2 marks each for explaining the conditions of holding a licence (max 4). 1 mark for a partial/incomplete answer.</b></p> <p><u>Conditions of holding a licence:</u></p> <p>Will vary according to the licence granted but may include notifying any changes to the Authority, for example, the erection of buildings, changes to visual aids, changes to any responsible person holding the licence, changes to the provider of ATC services.</p>  | <p><b>4</b></p>  |
|                  | <p><b>2 marks for describing a situation where additional oversight may be needed. 1 mark for a partial/incomplete answer.</b></p> <p><u>Additional oversight may be required:</u></p> <p>When large or complex aerodrome developments are being undertaken, or when significant operational changes are being made, or if the Authority has concerns about the safety of aircraft operations, the maintenance of its facilities, equipment or the organisational structure in meeting its licensing requirements.</p>   | <p><b>2</b></p>  |

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| <p><b>Q5</b></p> | <p><b>Your organisation is undergoing change and you have been asked to perform a risk assessment to manage the change and its associated risks.</b></p> <p><b>Describe your organisation’s procedures for managing the risks. (4 marks)</b></p> <p><b>Outline a valid method for risk assessment, including definitions, terminology and methodology. (6 marks)</b></p> <p><b>The change being introduced relates to the introduction of a new type of operation, such as a new aircraft, route, operator equipment or a change to infrastructure. For one of these changes, outline a relevant scenario which will need to be risk assessed and identify 3 associated risks. (5 marks)</b></p> <p><b>For each risk you have identified against the scenario, describe the appropriate control measures that could be put in place and explain how the effectiveness of those control measures could be evaluated and measured. (15 marks)</b></p> | <p><b>30</b></p> |
|                  | <p><b>Up to 4 marks for explaining the organisation’s procedures for managing risks. 1-3 marks for a partial/incomplete answer.</b><br/><u>Organisation’s procedures</u><br/>Risk management is often done from the ground-up, with safety meetings at the working level taking place, and reporting up, ultimately to the executive level. There may be a risk assessment of safety issues, safety management of change, incident and accident review and statistical analysis of events. Near miss reporting may also feature in the procedures for managing risk.</p>  | <p><b>4</b></p>  |
|                  | <p><b>Up to 6 marks for describing a suitable method of risk assessment, including definitions and terminology. 1-5 marks for a partial/incomplete answer.</b><br/><u>Method, definitions and terminology</u><br/>Risk assessment is generally described as severity x likelihood, but the strength of knowledge may also feature. PEAR (People, Environment, Assets, Reputation) Risk Assessment Matrix is most often used as per ICAO Annex 19 and the ICAO Safety Management Manual (ICAO Doc 9859). Various other methods may be used separately or in conjunction with a PEAR RAM, e.g. BowTie method, which uses barriers to mitigate undesired outcomes, before and after the fact.</p>  | <p><b>6</b></p>  |
|                  | <p><b>Up to 2 marks for outlining a credible scenario. 1 mark for a partial/incomplete answer.</b></p>  | <p><b>2</b></p>  |

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|  | <p><b>1 mark for each suitable associated risk identified (max 3).</b></p> <p><u>Scenario and identified risks</u></p> <p>The scenario should be credible and include risks that are of a safety nature, e.g. working with new lifting equipment may pose a risk to life from a fall from a height, or new loading equipment may pose a risk of aircraft damage etc.</p> <p><b>Up to 5 marks each for risk assessing each of the risks (max 15).</b></p> <p><u>Risk assessment</u></p> <p>The risk assessments of the scenario must have credible, identified safety risks, and include a clear, thought-out risk which may result in a bad outcome. Multiple mitigations should be offered, which must be robust and provide a tangible difference in reducing the risks described.</p> <p><b>For each risk:</b></p> <ul style="list-style-type: none"> <li>• 1 mark per valid control measure up to a maximum of 2 marks</li> <li>• Up to 2 marks for a description of a suitable method for measuring/evaluating the proposed control measures</li> <li>• 1 mark if the answer includes a valid/justified risk rating</li> </ul> | <p><b>3</b></p> <p><b>15</b></p> |
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| Q6 | <p>You are mentoring a new employee who has little knowledge of your area of the industry. You have been tasked with creating a training package.</p> <p>Plan a training package for a 2-week course, outlining the areas to be covered, including:</p> <ul style="list-style-type: none"> <li>• the structure of responsibility and accountability within your organisation (5 marks)</li> <li>• three of the main regulatory bodies covering your organisation's activities and the scope of their requirements (15 marks)</li> <li>• five procedures that your organisation has in place to comply with the associated legislation (10 marks)</li> </ul>  | 30                           |
|    | <p><b>Up to 5 marks for details of structure of responsibility. 1-4 marks for partial or incomplete answers.</b></p> <p><u>Structure of responsibility and accountability</u></p> <p>References to organisational structure, e.g. Accountable Manager/Nominated Persons, Duty Holder chain (mil).</p> <p><b>Up to 5 marks each for the regulations and/or legislation covered and their scope (max 15). 1-4 marks for partial or incomplete answers.</b></p> <p><u>Relevant regulatory bodies and scope</u></p> <p>Reference could be made to regulations and regulatory bodies and standards such as: EASA, ICAO, HSE, HASWA, DfT, CAA, MAA, Manual Handling, RIDDOR. Aerodrome Manuals, GOMs, SOPs, AAIB, COSHH, Working at Height Regulations, PUWER (<i>1 mark for each relevant regulation/body</i>) to include some detail regarding the scope of each regulation e.g. ICAO Technical Standards of Dangerous Goods, HSE guidance on the safety of the turnaround, etc. Licensing bodies (and scope of) include EASA (e.g. AOC Ops, Part M, Aerodrome, Dangerous Goods, MAA).</p> <p><b>Up to 2 marks for each explanation into procedures in place for compliance with legislation (max 10). 1 mark for a partial/incomplete answer.</b></p> <p><u>Procedures</u></p> <p>Company procedures manuals or other associated publications. May include requirements for reporting, responsibilities of supervisory staff, emphasis on requirements to record actions of activities and reference to specific operational procedures for the organisation.</p> | <p>5</p> <p>15</p> <p>10</p> |