

# IFE Level 4 Certificate in Fire Safety and Fire Science

## Unit 4 – Aviation Fire Operations

### Examiner Report – March 2017

#### Introduction

Entries for this examination were low with only 32 candidates booking examinations. 21% of candidates who sat the examination attained a Pass.

Candidates generally performed best on questions 1 and 7; they performed least well on question 8.

#### Question 1

*All aerodromes are required to have an emergency plan in place. This plan should set out how an emergency situation or incident will be managed in order to minimise the effects that the incident may have on life, property and aerodrome operations.*

- a) Describe how the plan should make best use of the appropriate available resources to achieve these aims. (4 marks)*
- b) Describe the minimum information that should be contained within the emergency plan. (11 marks)*
- c) An aerodrome emergency plan should include provision for a fixed emergency operations centre and a mobile command post to be available for use during an emergency. Describe the roles of the emergency operations centre and the mobile command post. (5 marks)*

#### **Examiner Feedback**

Nearly all of the candidates chose to attempt this question. Most candidates attained 8 marks or above for their response.

Candidates performed best on part b) of the question. In response to part c), few candidates demonstrated knowledge of the roles of the emergency operations centre and mobile command post; this element of the question was often completely omitted from answers.

#### Question 2

*Explain the requirements regarding provision of equipment and extinguishing media for offshore helidecks on installations and vessels. (20 marks)*

## **Examiner Feedback**

This question was not a popular option for candidates and those candidates that did attempt the question often attained only very low marks.

There were numerous points that could have been made as the offshore context provided the opportunity for candidates to demonstrate ability to apply their understanding. Few candidates started by considering the circumstances in which the equipment and media would be expected to operate. Few recognised that the operational objective should be to ensure that the system is able to bring under control a helideck fire associated with a crashed helicopter within 30 seconds measured from the time the system is producing foam at the required application rate.

## **Question 3**

*Management and command of a serious aircraft incident will require effective liaison with other agencies to achieve desired outcomes.*

- a) Explain how the Senior Airport Fire Officer (SAFO) will ensure effective liaison both prior to and during incidents. (7 marks)*
- b) The use and compatibility of radio systems and technology is key to achieving effective liaison at incidents. However, Airport Rescue and Fire Fighting Services (ARFFS) personnel should be aware of the radio traffic demands on the Airport Incident Commander. State the agencies and individuals that the Airport Incident Commander should be in communication with during an incident. (7 marks)*
- c) Describe the specific requirements for aeronautical radio equipment that allows fire officers to communicate directly with an aircraft flight deck. (6 marks)*

## **Examiner Feedback**

Few candidates attained 8 marks or above for their response to this question. Candidates usually attained some marks for the response to part b) but were less successful in attaining marks for other elements of the question.

Part c) of the question was often omitted from responses or, where it was attempted, candidates often failed to attain any of the marks available. Examples of specific requirements for aeronautical equipment include: it should enable airport fire officers to communicate with an aircraft flight deck; it should use an aeronautical frequency of 121.600 MHz; it should be able to record communication on suitable equipment that has the ability to identify the time the communication took place.

## **Question 4**

*The Managing Director of the airport at which you are the Senior Airport Fire Officer (SAFO) has informed you that due to an increase in commercial activity at the airport, the airport operating authority is in the process of purchasing a small private aerodrome. The intention of the airport operator is that this aerodrome will be licensed to operate all of the existing low category aircraft.*

*Describe the requirements for Airport Rescue and Fire Fighting Services (ARFFS) at an ICAO Aircraft Category 2 Aerodrome with regards to the following:*

- a) Minimum scale of services to be provided. (3 marks)*
- b) Extinguishing agents including Performance Level B and Level C foam. (7 marks)*
- c) Minimum number of staff designated as Airport Rescue and Fire Fighting Services (ARFFS) personnel.(2 marks)*
- d) Vehicles and ancillary equipment. (5 marks)*
- e) Training. (3 marks)*

### **Examiner Feedback**

This question required candidates to demonstrate detailed understanding of the requirements for ARFFSs at an ICAO Aircraft Category 2 Aerodrome. Few candidates demonstrated the level of understanding with only two candidates attaining 8 marks or above for their responses.

The majority of candidates that answered the question attained only a few marks. Most candidates made generic statements and most candidates gained the majority of their marks for responses to part e).

### **Question 5**

*The level of Airport Rescue and Fire Fighting Services (ARFFS) protection to be provided at an airport should be based on the dimensions of the aeroplanes normally using the airport as adjusted for their frequency of operations. Either a take-off or a landing constitutes a movement.*

- a) Explain how the frequency of operations may affect the ICAO Aircraft Category promulgated by an airport. (6 marks)*
- b) Describe in detail the critical area concept for fixed wing aircraft. (14 marks)*

### **Examiner Feedback**

This question was a popular choice for candidates and most of the candidates attempted the question. However, few candidates demonstrate sufficient understanding to attain 8 marks or above. Candidates generally performed better on part b) than on part a).

## **Question 6**

- a) *Explain the procedures that airport managers should put in place to deal with fatalities due to an aircraft incident. (15 marks)*
- b) *In the aftermath of an aircraft accident, it is often necessary to provide psychological treatment for the survivors. However, the mental and psychological well-being of emergency responders such as Airport Rescue and Fire Fighting Services (ARFFS) personnel who may suffer from post-traumatic stress disorders should also be considered. Explain how Critical Incident Stress affects ARFFS personnel and describe the approaches available for dealing with this. (5 marks)*

## **Examiner Feedback**

Although this question was a popular option for candidates, most candidates attained only low marks for their response.

In responding to part a), candidates often noted only one or two relevant points. Points were usually generic (eg the need to log where bodies were found) and few candidates made points specifically related to the scene (eg special precautions should be taken to avoid disturbing anything in the cockpit area; should any flight controls be required to be displaced, photographs, drawings, or notes should be taken before displacement). A number of candidates wrote about dealing with casualties rather than focussing on fatalities as required by the question.

In responding to part b) few candidates explained how critical incident stress affects ARFFSs but most were able to attain one or two marks for identifying approaches such as counselling.

## **Question 7**

*Describe the following areas of an airport, explaining the main activities that occur at these locations and the challenges that these areas may present to the Local Authority Fire and Rescue Service personnel who attend incidents on airports but who are not familiar with the rules and regulations applied in airports.*

- a) *Apron (5 marks)*
- b) *Airside (5 marks)*
- c) *Landside (4 marks)*
- d) *Emergency Rendezvous Points (6 marks)*

## **Examiner Feedback**

This question was a popular option for candidates and was generally answered well.

Candidates were usually able to describe the different areas but many omitted to answer the question fully in that they failed to explain the challenges for personnel from outside the airport when they attended during emergencies. For example, in relation to part b), candidates omitted to explain that Fire and Rescue Service appliances and personnel will need clearance and supervision to enter into this restricted and controlled location and that Fire and Rescue Service personnel who are required to drive their vehicles onto airside locations of airports will require an additional driving permit which is controlled by the airport operator.

The omission of information required by the question limited the marks that could be attained.

Candidates generally performed best on part a) of the question.

## **Question 8**

*As a Senior Local Authority Fire and Rescue Officer you have been approached by the Station Commander of a local military aerodrome who wishes to improve the interoperability arrangements between the on-site rescue firefighting service and the local emergency responders.*

*Identify the five principles for joint working and describe the actions required to ensure that each of the principles are met. (20 marks)*

## **Examiner Feedback**

This question was the least popular option for candidates and those candidates that answered the question generally attained only low marks.

The five principles that were required for detail consideration were: co-locate, communicate, co-ordinate, jointly understand risk and shared situational awareness.