

IFE Level 4 Certificate in Fire Safety and Fire Science

Unit 3 – Fire Service Operations and Incident Command

Examiner Report – October 2018

Introduction

This was a popular examination with 194 candidates entering for the examination.

32% of candidates achieved a Pass; this was an improvement on pass rates in March 2018 and also on pass rates in the last few years. The majority of candidates who passed the examination secured a D grade with only 5 candidates securing 60 marks (ie 50%) or above.

As with previous examination sessions, many candidates appeared to rely on operational experience and many failed to provide responses that demonstrated the depth of understanding required at Level 4. It was common for candidates to provide only brief responses containing only three or four key points when responding to questions where high marks were available.

Candidates generally performed best on question 8 and some secured high marks for their response to this question. Performance was also good on questions 1 and 5.

Question 1

Explain in detail the responsibilities and considerations of a tactical Incident Commander when arriving at the scene and taking over control. (20 marks)

Examiner Feedback

This was a straightforward question and candidates that passed the examination usually scored a high mark for their response to this question. Some candidates misjudged the level of the question and wrote at length about issues connected to booking in with control, parking their vehicle and wearing the appropriate tabard rather than considering the incident scene from the perspective of an incident commander and reviewing issues such as safe systems of work, priorities and resources.

Candidates who secured high marks considered the factors necessary for ensuring a smooth handover (such as communication of the change in command and assimilation of all relevant information prior to the change) and issues such as:

- rationale for taking over
- whether to confirm or amend the plan according to the agreed operational priorities and objective, risk assessment and tactical mode
- communications with other responders
- whether the command structure is appropriate or whether specialist roles need to be appointed
- ensuring a risk assessment process is maintained throughout the incident

A good source of information on this subject is the Foundation for Incident Command.

Question 2

In relation to the Joint Decision Making Model, describe in detail the seven factors that may negatively affect joint decision-making and that need to be considered when working at tactical and strategic level. (20 marks)

Examiner Feedback

This question was the least popular option for candidates. Candidates who attempted the question often focussed their response on the decision control model rather than on the seven factors recognised as affecting joint decision making. Where candidates took this approach, examiners awarded marks for relevant points but unfortunately this approach rarely led to more than three or four relevant points.

Conversely, candidates who did know the recognised factors were often able to attain high scores for this question. The factors are:

- Poor communications
- Group think
- Interpersonal conflict
- Status
- Lack of confidence
- Failure to challenge
- Organisational culture

A good source of information on this subject is the Foundation for Incident Command.

Question 3

A controlled burn can be employed as an environmental protection strategy. Discuss the circumstances when allowing a fire to burn out would be considered appropriate and explain the factors that would be taken into account when making this decision. (20 marks)

Examiner Feedback

Candidates often provided short responses to this question and provided only a few high level points that were not backed up with the detail needed to secure more of the marks available. Some candidates considered only the impact of water run-off and omitted to consider issues around airborne pollutants.

Candidates who attained high marks considered issues such as:

- The nature of the materials that are burning and whether a controlled burn may have adverse impacts such as allowing/ increasing the formation of hazardous gaseous by-products.
- Saving or protecting people will over-ride environmental and other considerations such as the protection of property.
- Whether a controlled burn strategy increases the risk to people and/or whether there are significant risks to FRS personnel from offensive firefighting tactics.

- Whether this strategy has been discussed at pre-planning stage
- Advice from HMEPOs, environment agencies and other stakeholders
- Certain buildings have a particularly high value because of their architectural, cultural, historical or strategic significance - benefits of a controlled burn must be weighed against the value of the building.
- Whether it is possible to reduce the environmental impact of the incident, eg to contain or divert firewater and run-off, blocking of drainage systems or pumping to bunds where appropriate
- Impact of controlled burn strategy on wider community, ie mass evacuations, closures of transport networks, business continuity etc.
- Whether there is a high probability of the fire spreading to other high hazard areas.
- Whether the predicted meteorological conditions are conducive to success of strategy ie wind direction, strength, rainfall etc.
- Local topographical issues ie gradients, location of water course, sensitive habitats, nature reserves, sewage treatment works, residential areas, high hazard areas

Question 4

You are responding to the report of an aircraft collision involving two light aircraft over a remote rural area. Describe your considerations when approaching the incident site. (20 marks)

Examiner Feedback

The question was focussed on considerations when approaching the site. Candidates who paid particular attention to the site, and the approach to the site, in their response were able to attain high marks. A few candidates missed the obvious issues in respect of the potential spread of debris, the nature of the debris and access issues and speculated instead about the causes of the incident or described their actions to resolve the incident.

Most candidates were usually on the right lines and nearly all candidates attained some marks for their responses. However, as with other responses, the main issue was that candidates often provided only a few points and therefore did not provide sufficient points to secure high marks.

Examples of points that could have been covered include:

- Terrain - shortest route may not be the quickest or most suitable
- Wreckage - there may be a large amount of debris to be avoided particularly where the approach follows a slide path made by the aircraft
- Wreckage could be covering casualties
- Wreckage could cause damage to vehicles - specialist off-road appliances may be required
- Need to bear in mind any subsequent accident investigation
- Time of day - night operations will be challenging
- Hazards and fuel spillages may be difficult to detect
- Time of year and use of surrounding rural area, crops, woodland, marshland, grazing fields, etc.
- It may prove prudent to divide the PDA into alternative routes.
- Vigilance should be maintained for survivors who may have been thrown from the wreckage and difficult to see.
- Request helicopter or drone support/remote control aerial cameras etc

- RVPs, holding areas should be identified early and communicated for oncoming appliances and agencies.

Question 5

You are the Duty Officer called to attend an incident involving several people trapped in mud in a situation involving a rising tide. Crews are in attendance, a risk assessment has been carried out and an extrication plan has been developed.

- Detail the key strategic points that should be considered when formulating the initial plan. (10 marks)*
- Identify the key considerations for casualty care and extrication management. (4 marks)*
- Describe the post-incident tasks and actions that should be considered. (6 marks)*

Examiner Feedback

This question, particularly part c), was often answered well.

Responses to part a) were often quite brief despite the fact that 10 marks were available. As with other questions of this type, candidates often attained marks for generic points such as securing specialist resources, contacting specialist agencies such as the coastguard, assessing time critical factors (ie tide) and minimising personnel in the risk area. However, candidates often failed to demonstrate their own specialist understanding and few candidates explored issues such as:

- Access to a casualty may be difficult due to the soft surface of the mud. A stable working platform should be laid out on the surface adjacent to the casualty for the rescuers as appropriate to the conditions.
- Mud shoes or inflatable rescue paths should be used for mud rescue. However, in some circumstances, there may be a requirement to improvise using ladders, inflated fire hose, salvage sheets and boarding to provide a safe working platform around the casualty.
- Initial activities should be directed towards stabilisation of the casualty using lines, and preparation for extrication. A line and/or strops should be passed around the casualty (under the arms where possible) to give support and prevent further sinking.
- There are only two principal methods available for extrication from mud — water/air injection or digging.

Responses to part b) were often poor with answers limited to the need to secure medical help and/or the need to consider how the casualties had been affected by the cold. Issues that could have been covered included:

- It is likely that the casualty will be partially numbed by the mud and may not feel any contact with the spade or mud lance.
- Serious injury may be caused that would not become apparent until the condition of the casualty abruptly worsens, or they are evacuated and cleaned up.
- Casualty should be monitored regularly.
- In all but the most minor cases the casualty should not be allowed to walk out with the rescue team. Sudden release and attempts to stand may induce post rescue collapse with possible fatal results.

- the casualty should be evacuated in as near a horizontal position as possible and conveyed to hospital for medical attention.
- the length of time a casualty has been trapped and the possible onset of Hydrostatic shock.

Responses to part c) were often good and many candidates attained a high proportion of the marks available for this element of the question.

Question 6

*As Duty Officer you respond to a fire inside a workshop on an industrial estate where two acetylene cylinders are reported to be present. Describe your approach to this incident and explain the tactical measures you would implement depending on the **involvement** and **location** of the acetylene cylinders. (20 marks)*

Examiner Feedback

This question was often answered poorly. As with the response to part a) of question 7, candidates often secured a few marks for generic incident command issues but then failed to demonstrate the in-depth technical knowledge required for situations of this type. Examiners expressed concern at the lack of understanding presented in some scripts.

To attain high marks, candidates needed to consider three situations ie whether cylinders were not affected by heat, where cylinders were affected by heat and where cylinders were leaking. Candidates needed to demonstrate understanding of the risks inherent in each of these situations and the appropriate actions required.

Candidates are advised to review the National Operational Guidance document on Physical Hazards.

Question 7

As the most senior officer, you are responding to a report of a road traffic collision involving several vehicles and a petrol tanker on a motorway.

- Describe your immediate concerns and explain ways of mitigating the risks to motorists and to firefighters. (12 marks)*
- Explain the factors that you will take into account when assessing the correct level of personal protective equipment (PPE). (8 marks)*

Examiner Feedback

Candidates often provided several relevant points to part a) with most referencing the need to assess and contain any fuel spillage. A surprising number of candidates failed to follow the instruction in the question to “explain ways of mitigating the risks to motorists and to firefighters”. Candidates who scored high marks for this part of the question referenced:

- closing the road to enhance the safety of crews and other attending emergency personnel

- consulting with the police and the Highways Agency etc to make decisions on whether a road can be closed and/or alternative measures can be adopted
- marking the scene of operations with cones and warning signs, as well as arranging for attending appliances to provide those at work with an area shielded from traffic.
- The FRS vehicle should be positioned so that it is not within any smoke plume or near hazardous materials. i.e including uphill and upwind where possible
- Where the hard shoulder of the motorway is used as an extra lane, procedures need to be in place to allow emergency vehicles to safely approach in the event of an incident.
- Provision to provide suitable lighting on the incident ground whilst giving consideration to the effect of the lighting on other road users

Part b) was often answered poorly. The question required candidates to consider the PPE requirements. Candidates who scored high marks referenced issues such as:

- The need to be visible in the vicinity of moving traffic - the type of reflective clothing needed will be affected by the type of road and speed of traffic.
- Consider the effect of Incident Commander tabards worn in conjunction with reflective clothing.
- The possibility of infection/illness spread through contact with blood or other bodily fluids and need for suitable gloves/PPE.
- Respiratory protection will need to protect personnel from smoke and toxic gases as well as airborne particulates such as windscreen glass particles, MMFs etc.
- Roadway surface conditions can often be affected by the presence of debris, fuels, lubricants etc – so suitable footwear will help reduce the likelihood of slips, trips and falls.
- Appropriate eye protection is necessary; this needs to take account of the possibility of impact hazards as well as blood-borne infections.

Question 8

- a) *Describe the role of Command Support at incidents and, using the example of a building on fire in a large industrial estate, explain how the responsibilities of the command support sector develop as the incident escalates. (12 marks)*
- b) *Explain the importance of the concept of span of control and the specific implications of this concept for the Incident Commander. (8 marks)*

Examiner Feedback

This question was generally answered well with some candidates securing high marks for their responses. Part a) was answered particularly well and it appeared that many candidates had a good understanding of the role of command support.