Australian Government

PUAFIR416 Supervise specialist response to aviation accidents and incidents

Release 2

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

PUAFIR416 Supervise specialist response to aviation accidents and incidents

Modification History

Release	TP Version	Comments
2	PUA12 V2.1	Editorial changes.
1	PUA12 V2	New unit. Equivalent to PUAFIR402B.

Unit Descriptor

This unit covers the competency required to supervise the initial response to an aviation accident or incident by a specialised aviation firefighting team.
No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

This unit applies to personnel who supervise specialist aviation incident response teams.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

PUAFIR205B Respond to aviation incident (specialist)

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where **bold italicised** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Respond to aviation accidents and incidents	1.1 International Civil Aviation Organization (ICAO)/Civil Aviation Safety Authority (CASA) requirement/recommendations are determined when attending **aviation accidents and incidents**.
	1.2 ICAO/CASA requirement/recommendations are determined when attending aviation accidents and incidents.
	1.3 **Aviation accident and incident response conditions** are analysed in accordance with aviation agency practices and procedures.
	1.4 Appropriate **resources** are identified, accessed and used in accordance with aviation agency practices and procedures.
	1.5 **Hazards and special risks** are identified and continually monitored and communicated in accordance with aviation agency practices and procedures.
2. Determine aircraft size-up	2.1 **Size-up strategy** is determined for principal aircraft attack based on **relevant factors**.
	2.2 Size-up strategy is communicated to firefighting team.
3. Control an aircraft accident or incident	3.1 Fireground tactics are applied and continually monitored and communicated in accordance with aviation agency procedures.
	3.2 Firefighting teams and incident conditions are monitored to maintain the safest possible working conditions at the scene.
	3.3 Changing conditions are communicated to supervisor and team members.
	3.4 Extinguishing medium is applied correctly.

4. Supervise the rescue and evacuation of persons on board aircraft	4.1	Passenger and crew evacuation and movement to a safe area are coordinated in accordance with Aerodrome Emergency Plan.
	4.2	Removal of injured persons is undertaken and medical assistance provided in accordance with aviation agency operational practices and procedures.
	4.3	Operation of extrication equipment is monitored.
	4.4	Aircraft facilities, equipment or structures removed or damaged during rescue operations are recorded in accordance with Air Navigation Regulations.
	4.5	All persons on board are accounted for and information communicated to DISPLAN coordinator in accordance with Civil Aviation Regulations.
5. Preserve aircraft scene	5.1	Damage to the aircraft is noted and recorded in accordance with aviation agency practices and procedures.
	5.2	Security of aircraft and scene is maintained in accordance with aviation safety organisation processes and procedures.
6. Liaise with emergency services	6.1	Incident is handed over to senior AEP coordinator when incident management is complete and it is safe to do so, in accordance with aviation safety organisation processes and procedures.
	6.2	*Emergency services liaison* is undertaken as required.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- apply aviation strategy, tactics and techniques
- apply rescue strategies and tactics
- apply size-up strategies
- identify hazards
- implement aerodrome operating procedures
- implement appropriate techniques/strategies/procedures
- implement incident management procedures

Required Knowledge

- aerodrome emergency plans
- aerodrome operating procedures
- air navigation regulations
- aircraft details (construction, control surfaces, engines)
- CASA regulatory arrangements and standards
- Civil Aviation Regulations
- fireground strategies and tactics for aircraft incidents
- ICAO standards and recommended practices
- identification of hazards (fuel systems, hydraulic systems, electrical systems, pyrotechnics, armaments and other hazards for military aircraft)
- operation of emergency exits
- security of scene

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessment must confirm the ability to: • conduct overall size-up operations of an aviation accident and incident • control firefighting tactics and strategies • appropriately select and use aviation firefighting equipment, firefighting agents and protective equipment under response conditions • implement action plans in accordance with standard operating procedures and regulatory requirements **Consistency in performance** Competency should be demonstrated in a range of actual or simulated aviation incidents.
Context of and specific resources for assessment	**Context of assessment** Competency should be assessed on-the-job and in a range of simulated aviation fires and incidents. **Specific resources for assessment** Access is required to: • specialised aviation firefighting equipment and mediums • appropriate protective clothing and equipment • environmentally sound training ground incorporating aircraft simulations for practical training • appropriate fuels for burning • aircraft or simulator • agency regulations
Method of assessment	In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook. Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment. Assessment may occur in an operational environment or in an agency-approved simulated work environment.

Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate
- journals and workplace documentation
- third party reports from supervisors
- written or oral questions

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Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.	
Aviation accidents and incidents must include:	- aircraft fires including: - auxiliary power unit fire - cargo fires - engine fires - fires of electrical origin - internal fires - re-fuelling fires - wheel fires - aircraft collisions including: - aircraft on the ground - structures on and off the airport - aircraft equipment malfunction including: - bomb warnings - brake failure - crash on water - explosion on aircraft - fuel spill - hydraulic - medical emergencies - military aircraft - pilot incapacity - smoked filled fuselage - tyre failure - under-carriage observations
Aviation accident and incident response conditions must include:	- response time criteria - type of fire: - armaments - hydrocarbon fuel - metal - type of aircraft - aircraft knowledge and familiarisation - airport topography - airport operations: - area of response - aerodrome emergency plans

	• aircraft movements • category

Resources must include:	• extinguishing mediums:
	   • extinguishing powder
	   • water
	   • foam
	• personnel
	• protective clothing
	• vehicles

and may also include:	• dry sand • extinguishing gas • vaporising liquid

Hazards and special risks may include:	• aircraft materials
	• cirrus systems (parachute)
	• composite fibres
	• electrical systems
	• engines:
	   • turbine
	   • propeller
	   • rotors
	• aircraft wheel fire hazards
	• evacuation slides
	• military aircraft
	• arresting systems
	• hazardous materials
	• hydraulic systems
	• location of fuel systems
	• military aircraft:
	• armament
	• special fuels
	• navigation systems
	• ejection systems
	• arresting systems
	• radioactive materials
	• oxygen cylinders and supply systems
	• pyrotechnics
	• rotary aircraft

Size-up strategy may include:	• type of incident involvement • tactical approach criteria: • aircraft type

	• location
	• number of passengers on board
	• oral messages by radio terrain
	• vehicles and personnel immediately available
	• weather
	• wind
Relevant factors may include:	• persons on board
	• pilot intention
	• type of cargo
	• type of accident or incident
Emergency services liaison may include:	• aerodrome emergency plans
	• incident control system (ICS) management systems
	• memorandum of agreement (MOA)

Unit Sector(s)

Not applicable.