



Australian Government

PUAFIR005 Observe fire from an aircraft

Release: 1

PUAFIR005 Observe fire from an aircraft

Modification History

Release 1.0 This is the first release of this unit of competency in the PUA Public Safety Training Package.

Application

This unit of competency involves the skills and knowledge required to observe a fire or prescribed burn from an aircraft and to collect intelligence relating to fire location and behaviour including fuel loads, terrain, rate of spread, threats and progress of strategies and tactics. It includes working safely as an air observation team member, preparing for air observation mission, planning flight route, preparing for flight, validating flight path en route to mission area, collecting and recording incident intelligence, reacting to changed conditions and emergencies and concluding air observation mission.

The unit is applicable to personnel responsible for collecting incident intelligence from either a fixed wing or rotary wing aircraft or from the ground using remotely piloted aircraft. Authorisation to perform this role is subject to organisational policies and procedures.

The fire sector is those sections of government departments, statutory authorities or agencies that have responsibility under jurisdictional arrangements for the delivery of firefighting and fire management services.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

It is essential that the prerequisite units listed below are obtained prior to the issuance of this unit to individuals within the fire sector or the units contributing to the attainment of a fire qualification.

PUAFIR017 Work safely around aircraft

PUAFIR303 Suppress wildfire

PUAOPE013 Operate communications systems and equipment

PUAOPE014 Navigate to an incident

Competency Field

Fire

Unit Sector

Fire

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Work safely as air observation team member

- 1.1** Team Resource Management (TRM) principles are applied during air observation mission
- 1.2** Compliance is maintained with relevant legislation, regulations and organisational policies and procedures
- 1.3** Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements for air operations are implemented
- 1.4** Job hazards are identified and action is taken to eliminate, minimise or control them

2 Prepare for air observation mission

- 2.1** Briefing on air observation mission is obtained from task supervisor
- 2.2** Mission information is collated
- 2.3** Maps, navigation equipment and personal protective clothing and equipment for mission are prepared

3 Plan flight route

- 3.1** Mission aircraft, its performance capability and fuel range are confirmed with task supervisor
- 3.2** Pre-flight plan is prepared using available information including known terrain, hazards, mission requirements, weather forecast and expected time duration
- 3.3** Alternative landing areas in flight area are identified in consultation with pilot
- 3.4** Flight plan and communication arrangements for mission are confirmed with pilot
- 3.5** Flight following and search and rescue arrangements are confirmed

4 Prepare for flight

- 4.1** Pilot is briefed on mission

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| | 4.2 | Briefing from pilot is received on aircraft safety and emergency procedures |
| | 4.3 | Communication equipment is tested for correct frequencies and functionality |
| | 4.4 | Satellite navigation equipment, where required, for the mission is checked for correct programming and operability |
| 5 Validate flight path en route to mission area | 5.1 | Communication is maintained with pilot to ensure planned route is followed and mission objectives are achieved |
| | 5.2 | Flight following protocols are established and maintained |
| | 5.3 | Flight route is followed on map and/or using satellite navigation technology and location is confirmed through identification of ground features |
| | 5.4 | En route, diversion and arrival reporting information is transmitted in accordance with organisational procedures |
| 6 Collect and record fire intelligence information | 6.1 | Spatial data on fire location and progress of suppression efforts is recorded and communicated in accordance with organisational procedures |
| | 6.2 | Observations of current and projected fire behaviour, including factors that may affect it, are collected and recorded |
| | 6.3 | Fire intelligence information is communicated to task supervisor within agreed timeframes using approved communication arrangements |
| 7 React to changed conditions and emergencies | 7.1 | Contact is made with task supervisor and/or fire ground commander, if present, to confirm communication arrangements |
| | 7.2 | Observed hazards that pose a risk to people, property, assets or the environment are reported to task supervisor and/or fire ground commander, if present |
| | 7.3 | Observed changes in operational conditions are communicated to task supervisor and/or fire ground commander, if present |

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| 8 Conclude air observation mission | 8.1 After action review is conducted with air observation personnel |
| | 8.2 Navigation equipment is stored in accordance with organisational procedures and faults are referred to approved personnel for attention |
| | 8.3 Details of air operations mission are recorded in accordance with organisational procedures |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the PUA Public Safety Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is not equivalent to PUAFIR408 Plan aircraft operations and PUAFIR315 Navigate from an aircraft.

Links

Companion Volume Implementation Guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=3eca5672-6d5a-410b-8942-810d0ba05bbf>

Assessment Requirements for PUAFIR005 Observe fire from an aircraft

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria on at least one occasion and includes

- applying Team Resource Management (TRM) principles
- briefing pilot on mission requirements and receiving pilot briefing on aircraft safety and emergency procedures
- checking satellite navigation equipment, where required, for correct programming and operability
- collecting and recording observations of current and projected fire behaviour
- communicating fire intelligence and changed conditions to task supervisor and/or fireground commanders
- complying with organisational policies and procedures
- conducting after action reviews with air observation personnel
- confirming
 - flight following and search and rescue arrangements
 - flight plan and communication arrangements with pilot
 - mission aircraft, its performance capability and fuel range
- contacting task supervisor to confirm communication arrangements
- determining job hazards and taking action to eliminate, minimise or control them
- establishing and maintaining flight protocols, as required
- following flight routes using satellite navigation technology and/or map and ground features
- identifying alternative landing areas in flight zone
- implementing relevant legislation and regulations
- maintaining communication with pilot
- observing and communicating hazards that pose a risk
- observing fire from aircraft
- obtaining mission briefings
- preparing maps, navigational equipment, personal protective clothing and equipment and preliminary flight plans
- receiving briefing on mission, aircraft safety and emergency procedures from pilot
- recognising location through identification of ground features
- recording and communicating spatial data and progress of incident response strategies

- recording details of air operation mission
- reporting en route, diversion and arrival information
- storing navigation equipment and reporting faults
- testing communication equipment for correct frequencies and functionality
- wearing personal protective clothing and equipment.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria and include knowledge of

- aircraft performance capability
- alternate routes due to weather and aircraft tactical issues
- burning techniques including prescribed burning techniques
- cartographic symbols, legends and other information relating to fire mapping
- communication methods and processes with ground and air team members
- correct use of organisational satellite navigation equipment, if used
- factors that impact aircraft navigation including prevailing weather and environmental conditions and margin of error allowable per task or incident terrain
- fire behaviour, firefighting strategies and tactics
- hazards and risks associated with fire and flight
- legislation and regulations including relevant civil aviation regulations
- methods for determining current location
- mission information including weather forecast, incident action plan, if developed, and communications plan
- organisational policies and procedures including fire mapping protocols and procedures, intelligence collection protocols and procedures, air observations procedures and reporting requirements
- other flight planning considerations that may impact mission
- personal protective clothing and equipment requirements
- pilot briefings and debriefings
- processes for organising an aerial fire observation mission
- radio communication protocols including requirements for ground-to-air communications
- risk management principles and risks associated with incidents
- roles and responsibilities in aerial operations units
- route planning techniques
- spatial data collection
- Team Resource Management (TRM) principles
- use of satellite navigation equipment and/or maps, where required
- Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements including safe working procedures around aircraft.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in operational situations or in simulated operational training situations that reflect workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to

- a range of exercises, case studies and/or simulations
- appropriate materials, equipment, tools and personal protective clothing and equipment currently used in industry including
 - an aircraft suitable for air observation with a pilot
- applicable documentation including organisational procedures, standards, equipment specifications, regulations, codes of practice and operational manuals.

Links

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