



Australian Government

PUAFIR008 Operate aerial ignition equipment in an aircraft

Release: 1

PUAFIR008 Operate aerial ignition equipment in 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 prepare, operate and maintain aerial ignition equipment in an aircraft. It includes preparing aerial ignition equipment, conducting aerial ignition operations and servicing, maintaining and storing ignition equipment.

Equipment may comprise automated incendiary machines and handheld manual incendiary injection. The ignition equipment is used to drop consumables such as incendiaries from a fixed wing aircraft, helicopter or a remotely piloted aircraft as part of aerial ignition operations.

Aerial ignition equipment introduces fire into the landscape in order to ignite either prescribed burn or burning as part of a fire suppression strategy. Because of the risks involved aerial ignition must be conducted in accordance with an approved burn plan or incident action plan with the ignition sequence and intervals planned and monitored.

The unit is applicable to a person required to operate ignition equipment in a helicopter in order to ignite either a prescribed burn or burning as part of a fire suppression strategy. An incendiary operations supervisor is responsible for supervising the aerial ignition.

The fire sector is those sections of government departments, statutory authorities or organisations 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

Competency Field

Fire

Unit Sector

Fire

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare aerial ignition equipment

PERFORMANCE CRITERIA

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

- 1.1** Personal protection clothing and equipment and other safety equipment is checked and worn in accordance with organisational procedures
- 1.2** Requirements for aerial ignition operations are identified and confirmed with relevant personnel
- 1.3** Activities are undertaken in accordance with standards, legislation, organisational procedures and Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements
- 1.4** Ignition equipment and consumables to be used are confirmed
- 1.5** Ignition equipment and consumables are stored and transported in accordance with organisational procedures and regulatory requirements
- 1.6** Ignition equipment is installed in aircraft in accordance with organisational procedures and aircraft operator requirements
- 1.7** Ignition equipment is inspected and tested to ensure correct operation, where required
- 1.8** Consumables are loaded into ignition equipment in accordance with organisational procedures

2 Conduct aerial ignition operations

- 2.1** Principles of team resources management are established and maintained for aerial ignition operations
- 2.2** Briefing is received from pilot on aircraft safety including aircraft emergency procedures
- 2.3** Response procedures for emergency situations involving ignition equipment or aircraft are confirmed with pilot

and incendiary operations supervisor

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| | 2.4 | Communication with pilot and incendiary operations supervisor is maintained to ensure aerial ignition operations achieves burn prescription |
| | 2.5 | Ignition equipment is operated in accordance with organisational procedures and manufacturers' specifications |
| | 2.6 | Adjustments to ignition equipment are undertaken, as required or requested |
| | 2.7 | Ignition operations are conducted in accordance with burn plan |
| 3 Service, maintain and store ignition equipment | 3.1 | Ignition equipment is isolated or shut down in accordance with organisational procedures and manufacturers' guidelines prior to departure of aircraft from ignition site |
| | 3.2 | Excess incendiary devices are stored or disposed of in accordance with organisational procedures |
| | 3.3 | Ignition equipment is serviced, maintained and repaired within scope of authority |
| | 3.4 | Ignition equipment faults are documented and forwarded to appropriate personnel for action |
| | 3.5 | Ignition equipment is stored and forwarded to appropriate personnel for maintenance |

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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to PUAFIR312 Operate aerial ignition equipment in 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 PUAFIR008 Operate aerial ignition equipment in 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

- adhering to safe working practices if machine or ignition equipment malfunctions
- applying organisation procedures for aerial ignition
- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) organisational requirements including aircraft or other emergency procedures
- checking and wearing of personal protective clothing and equipment
- conducting aerial ignition operations using approved ignition equipment and consumables
- demonstrating pre-flight testing and installation, where required, of aerial ignition equipment
- operating for extended periods in an aircraft
- operating ignition equipment from an airborne aircraft
- preparing and maintaining ignition equipment
- receiving briefing from pilot on aircraft safety
- reporting equipment malfunctions, accidents and incidents
- servicing, maintaining, repairing and storing equipment and consumables
- shutting down or isolating ignition equipment
- using communications equipment
- using ignition equipment
- working as a member of a team.

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 includes knowledge of

- aircraft operator's policy and procedures for aerial ignition
- aircraft safety and emergency procedures
- characteristics and limitations of ignition equipment and consumables
- consumables such as capsules containing potassium permanganate and ethylene glycol (antifreeze)
- emergency procedures for equipment malfunction
- guidelines relating to safe use of ignition equipment used by organisation

- mechanical knowledge sufficient to service, maintain and repair aerial ignition equipment
- methods for disposal of excess consumables
- organisational policies and procedures for aerial ignition
- personal protection clothing and equipment for operating the aerial ignition equipment
- requirements for packing and transporting aerial ignition equipment and consumables
- risk mitigation and hazard identification
- roles and responsibilities of team involved in aerial ignition operations
- Team Resources Management (TRM) principles
- types and applications of aerial ignition equipment
- Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) organisational requirements.

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 will take place in a simulated environment followed by an assessment by an accredited operator on the job.

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 and tools currently used in industry including
 - aerial ignition equipment and consumables
 - an aircraft
 - an area to conduct operations
 - personal protective clothing and equipment and relevant safety equipment
 - safe disposal facilities
 - suitable tools for testing, maintenance and inspection of equipment
 - transport of consumables and ignition equipment
- applicable documentation including organisational procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

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