



**Australian Government**

# **PUAFIR519 Supervise incendiary operations during aerial ignition**

**Release: 1**

# PUAFIR519 Supervise incendiary operations during aerial ignition

## Modification History

**Release 1.** This is the first release of this unit of competency in the Public Safety Training Package.

## Application

This unit of competency involves the skills and knowledge required to supervise incendiary operations during aerial ignition of a prescribed burn or fire suppression operations.

Aerial ignition is conducted using an approved burn or incident action plan, including a map of the area to be burned and a prescription specifying the conditions under which the ignition is to be conducted. Aerial ignition is conducted from either a fixed wing or rotary wing aircraft, where the pilot is responsible for flying the aircraft and the Incendiary Operations Supervisor is responsible for managing incendiary operations. Aerial ignition may also be conducted using remotely piloted aircraft. Authorisation to perform this role is subject to organisational policies and procedures.

The unit is applicable to personnel who will perform as an Incendiary Operations Supervisor for a prescribed burn or fire suppression operation.

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.

PUAOPE020 Lead a crew

PUAOPE016 Manage a multi-team sector

PUAFIR303 Suppress wildfire

PUAOPE015 Conduct briefings and debriefings

PUAFIR209 Work safely around aircraft

PUAOPE013 Operate communications systems and equipment

PUAFIR315 Navigate from an aircraft

PUAFIR401 Obtain incident intelligence

PUAFIR408 Plan aircraft operations

## Competency Field

Fire

## Unit Sector

Fire

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### **1 Plan incendiary operations mission**

### PERFORMANCE CRITERIA

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

- 1.1** Approved burn plan or incident action plan is used to identify burn location, objectives, control lines and burn prescription
- 1.2** Hazards and risks are identified during planning to ensure safety of flight, firefighting operations, safety of neighbours and environmental values
- 1.3** Factors affecting burn prescription are determined including terrain, fuel loads, types and distribution in the burn area and forecast weather conditions
- 1.4** Factors affecting the aerial ignition are determined, including operating height and incendiary drift
- 1.5** Ignition pattern, lighting sequence and aerial ignition lines for planned burn are confirmed with operations officer
- 1.6** Time of day and weather conditions for aerial ignition are determined in conjunction with burn incident manager and/or the operations officer
- 1.7** Time required to complete aerial ignition is estimated and departure time and flight duration is calculated
- 1.8** Alternative aircraft landing locations are identified
- 1.9** Incendiary operational mission arrangements are reviewed against burn plan or incident action plan and

- variations are checked with burn incident manager and/or the operations officer
- 2 Supervise preparation of personnel, equipment and consumables**
- 2.1** Safe work practices are implemented around aircraft
- 2.2** Organisational procedures for aerial incendiary operations are identified and implemented
- 2.3** Resource requirements for personnel, equipment, aircraft and fuel for aerial ignition are identified and organised
- 2.4** Incendiary equipment consumables are calculated and obtained
- 2.5** Incendiary equipment is checked and tested prior to flight, in accordance with manufacturers' operational manual
- 2.6** Satellite navigation equipment used to locate the burn area and implement the lighting pattern is checked for correct programming and operability prior to flight
- 2.7** Personal protection and safety equipment is inspected and tested prior to flight
- 3 Prepare for flight**
- 3.1** Principles of crew resources management are established and maintained
- 3.2** Briefing on aircraft safety including aircraft emergency procedures from the pilot is received
- 3.3** Briefing on burn or incident operations management including chain of command and communication arrangements, burn objectives, planned ignition sequence and forecast weather is received from burn incident manager and/or the operations officer
- 3.4** Briefing on incendiary operations including response procedures for emergency situations involving incendiary equipment is delivered to pilot and flight crew
- 3.5** Aircraft communication equipment is tested pre-flight for correct frequencies and functionality
- 3.6** Flight following protocols are established and are

- maintained
- 4 Conduct the incendiary operations mission**
- 4.1** Pilot is directed to burn site, flight route is followed on map, burn site is identified and reconnaissance is carried out to establish key ground features and hazards
- 4.2** Contact is made with fire ground supervisor to confirm communication arrangements and intended strategy and tactics
- 4.3** A test ignition is conducted from the air to ensure fire will burn according to prescription
- 4.4** Preliminary fly over is conducted to identify hazards and confirm area is clear of personnel and equipment
- 4.5** Approval to commence operations is obtained from burn incident manager and/or the operations officer
- 4.6** Weather conditions, smoke and fire behaviour are monitored
- 4.7** Communication with pilot and aerial incendiary operator is maintained to ensure burn prescription is achieved
- 5 Collect information**
- 5.1** Observations of fire behaviour resulting from aerial ignition are recorded, in accordance with organisational procedures
- 5.2** Data on aerial ignition mission is collected, recorded and communicated, in accordance with organisational procedures
- 6 React to changed conditions and emergencies**
- 6.1** Observed changes in operational conditions are communicated to fire ground personnel and to burn incident manager and/or the operations officer
- 6.2** Ignition problems are changed to achieve burn prescription as ground conditions change from weather, fuel and/or topography
- 6.3** Observed hazards that may pose a risk to people, property, assets or the environment are reported to fire ground personnel and burn incident manager and/or the operations officer
- 6.4** Response to emergencies involving aircraft or incendiary operations is undertaken, in accordance with aircraft and organisational procedures

**7 Conclude incendiary operations**

- 7.1** Incendiary equipment is isolated or shut down, in accordance with organisational procedures and manufacturers' guidelines, prior to departure of aircraft from burn site
- 7.2** Ground personnel and burn incident manager and/or the operations officer are provided with situation reports prior to departure of aircraft from burn site
- 7.3** Servicing and storage of incendiary equipment and unused consumables is supervised, in accordance with organisational procedures, with any faults referred to relevant personnel for attention
- 7.4** An after action review is conducted with personnel involved in the incendiary operation
- 7.5** Details of incendiary operation 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 Companion Volume Implementation Guide.

**Unit Mapping Information**

This is a new unit.

**Links**

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