



Australian Government

Assessment Requirements for PUA FIR013 Supervise incendiary operations during aerial ignition

Release: 1

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Modification History

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

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 burn plan or incident action plan
- communicating clearly with pilot, aerial ignition equipment operator and ground operational personnel
- confirming correct pre-flight testing and operating procedures have been completed
- ensuring safety of firefighting resources, public, neighbours and environmental values
- establishing, implementing and monitoring flight following procedures
- estimating time required to complete aerial ignition operations including departure times and flight duration
- following flight route on map and/or using satellite navigation technology and confirming location through identification of ground features
- following organisational operating procedures
- identifying ignition patterns, lighting sequences and flight lines to achieve burn objectives
- interpreting fire behaviour observed from the air
- maintaining an appropriate airspeed and commencing and ceasing ignition to ensure rate of ignition (drop rate) will achieve burn objectives
- modifying ignition rates and sequence, and making operational adjustments including
 - altering aerial ignition lines
 - altering rate of ignition i.e. drop rate
 - altering the airspeed
 - ceasing ignition
- observing changes in operational conditions
- providing clear directions to pilot and aerial ignition equipment operator
- receiving briefing on aerial ignition operations including response procedures recording activities in a written log of activities
- undertaking actions in response to an aircraft emergency or equipment malfunction
- using organisationally approved safe work practices around aircraft and incendiary 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 includes knowledge of

- aircraft and fire ground communications
- communication requirements within the aircraft and with ground supervisor relating to ignition lines, maintenance of an appropriate airspeed, when to commence and cease ignition and appropriate rates of ignition
- consumables including aerial incendiaries, ethylene glycol, gelling agent or unleaded petrol
- content of burn plan or incident action plan and of burn prescriptions or conditions
- fire behaviour for burns including fire intensity, flame height and rate of spread and spotting
- ground features including flight hazards, control lines, helipads or landing strips, escape routes and refuges for ground crews, staging areas and designated locations for managing burn or fire
- hazards and risks to flight and firefighting operations
- how to brief pilots and other personnel involved in aerial ignition operations including burn prescription and Team Resource Management (TRM) principles
- ignition equipment such as manually operated ignition equipment or automated ignition equipment
- ignition patterns including contour lighting, grid, line, ridge and spot lighting
- lighting sequence taking into account fuel structure, slope, time of day, wind speed and direction, temperature, humidity and sun angle
- observed changes in operational conditions including changes in weather and smoke direction, increase in flame height and fire intensity and the effects of smoke and shading on fire ground
- organisational and aircraft operator procedures, where appropriate, for handling storage and transport of ignition equipment and operating ignition equipment including
 - stop and/or start procedures
 - response procedures for emergency situations involving the operation of ignition equipment including actions to take for ignited ignition equipment on aircraft electrical system fault and ignition placement outside of the control line
- potential contingency arrangements for changes in weather and smoke direction, increase in flame height and fire intensity and changes in fire behaviour from effects of smoke and shading on fire ground
- property and assets in or near burn area including urban interface areas, commercial land, cultural sites or historical buildings, utilities, camps or recreational areas, plantations, research plots or reference areas identified in a burn plan and/or on an operational map
- protocols for briefings and debriefings
- risks to firefighters, public, neighbours and environmental values
- role and responsibility of incendiary operations supervisor including organisational requirements for the role in evolving fire situations
- safety of personnel and public including those involved with burn implementation in the burn area or in adjacent areas and vulnerable communities that may be impacted by smoke
- selection of aircraft for aerial ignition taking into account aircraft performance

- weather and contingency planning for changes in the weather
- when and how to make adjustments to planned ignition patterns including consideration of line and spot spacing, line orientation and burning time remaining.

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 relevant exercises, case studies and/or other simulations
- appropriate materials, equipment, tools and personal protective clothing and equipment currently used in industry including
 - an aircraft operator and pilot endorsed by CASA and approved by state or territory organisation to conduct aerial ignition
 - an aircraft with capacity to hold ignition equipment
 - authorisation to light burn
 - authorised personnel and/or aerial ignition equipment operator
 - fire suppression crew
 - ignition equipment and consumables
 - plan for aerial ignition of prescribed burn or burning out operations including a map
 - weather forecast
- applicable documentation including organisational procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=3eca5672-6d5a-410b-8942-810d0ba05bbf>