



Australian Government

Assessment Requirements for PUA FIR519 Supervise incendiary operations during aerial ignition

Release: 1

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Modification History

Release 1. 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 prescription, modification of ignition rates and sequence
- adhering to organisational operating procedures
- communicating clearly with authorised personnel including pilot, aerial incendiary operator and on ground operational personnel
- confirming correct pre-flight testing and operating procedures have been completed
- delivering briefings, including incendiary details, using SMEACS (Situation, Mission, Execution, Administration, Communication and Safety)
- ensuring safety of people, property, assets and the environment
- establishing, implementing and monitoring of flight following procedures
- estimating time required to complete aerial ignition operations including departure times and flight duration
- identifying ignition patterns, lighting sequences and flight lines to achieve burn prescriptions
- maintaining a written log of activities including supporting information
- making operational adjustments including
 - altering aerial ignition lines
 - altering the airspeed
 - altering the rate of ignition (drop rate)
 - ceasing ignition
- observing changes in operational conditions
- performing aerial navigation using satellite navigation technology and or ground features,
- providing clear directions to pilot
- 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 with pilot and aerial authorised personnel including establishment and maintenance of agreed aerial ignition lines, maintenance of an appropriate airspeed, when to commence and cease ignition and appropriate rate of ignition (drop rate)
- content of burn prescriptions
- crew resource management principles
- environmental and ecological risks including rare and endangered flora and fauna, soil, water quality and/or supply
- fire behaviour including rate of spread, flame height, fire development, shape and spread, spotting, escapes from burn area, changes due to unexpected weather changes, smoke impact and rate and direction of fire spread
- 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 and assets
- ignition patterns including contour lighting, grid, line and spot
- incendiary equipment consumables including aerial incendiary capsules and consumables and gelling agent and unleaded petrol
- incendiary equipment including manually operated incendiary equipment, automated incendiary equipment and helitorch (aerial drip torch)
- lighting sequence including fuel hazard, slope, time of day, wind speed and direction, temperature, humidity and sun angle
- observed changes in operational conditions including changes in weather, changes in smoke direction, increase in flame height and fire intensity and changes in fire behaviour from effects of smoke and shading on fire ground
- organisational procedures including
 - operating and emergency procedures for ignition equipment
 - procedures for handling, storage and transport of incendiary equipment
 - response procedures for emergency situations involving the operation of incendiary equipment
- operation of incendiary equipment
- operations procedures including stop and/or start procedures for incendiary equipment and emergency procedures for incendiary equipment
- potential changes to operational conditions
- property and assets in or near the burn area including urban interface areas, property and assets, commercial land, cultural sites or historical buildings, utilities, camps or recreational areas and plantations, research plots or reference areas
- protocols and processes for briefing and debriefing
- response procedures involving operation of incendiary equipment including ignited incendiary equipment on aircraft, electrical system fault and incendiary placement outside of the control line
- role and responsibility of Incendiary Operations Supervisor including organisational requirements for role in evolving situations
- safety of personnel including those managing an aircraft, involved with burn implementation, permanently or temporarily in the burn area, in areas adjacent to the burn area or impacted by

- smoke such as vulnerable communities
- selection of aircraft for aerial ignition
- types of property and assets
- when and how to implement operational adjustments

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

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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.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in industry approved simulated workplace operational situations that reflect workplace conditions.

Resources for assessment must include access to

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

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>