



Australian Government

Assessment Requirements for FWPFRM5011 Quality assure forestry data acquisition by unmanned aerial vehicle (UAV)

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Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 7.0.

Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has planned, conducted and reported on pre-flight and post-flight quality assurance checks of forestry data acquisition for three unmanned aerial vehicle (UAV) flights.

In undertaking this activity, the individual has:

- confirmed quality assurance checkpoints and associated quality criteria for UAV forestry data acquisition
- checked UAV forestry data acquisition against quality criteria
- produced final compliance and quality assurance report to validate that UAV forestry data is accurate, reliable and fit for use
- forwarded forestry data files for processing.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- problems associated with UAV data acquisition:
 - equipment and sensor
 - data
 - data collection
 - data management
- UAV project plan checks:
 - flight plan
 - sensor settings
 - ground control plan
- standard UAV data checks:

- delivery completeness and file corruption
- file naming, attributes and coordinate system
- form comparison
- classification statistics
- accuracy of control network
- UAV data specific checks:
 - imagery resolution and overlap
 - image quality
 - imagery-survey control alignment
 - point cloud quality assessment and vertical accuracy
 - DSM quality assessment and accuracy
 - existence of data
 - data extent and coverage
 - internal voids
- file formats
- compliance and quality assurance report:
 - format
 - procedures
- workflow for UAV data acquisition.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a forest work environment or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - computer hardware and software
 - internet access
 - UAV data
- specifications:
 - work order or instruction detailing requirements for planning, conducting and reporting on pre-flight and post-flight quality assurance checks of UAV data acquisition
 - workplace policies and procedures that cover current Work Health and Safety Acts or Occupation Health and Safety Acts, regulations and related industry standards and codes of practice applicable to UAV operations
 - workplace policies and procedures that cover current Environment Protection Acts, regulations and related industry standards and codes of practice applicable to UAV operations

- workplace safety and environmental protection plans
- user manual and technical instructions for UAV equipment and related software.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>