



Australian Government

AVIY3078 Manage remote pilot aircraft systems energy source requirements

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the AVI Aviation Training Package.

Application

This unit involves the skills and knowledge required to manage remote pilot aircraft systems (RPAS) energy source requirements, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority and national operating standards.

It includes planning energy source requirements, managing energy source system, and refuelling and recharging the RPAS.

This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to aircraft operational duties of flight crew and ground personnel, and contributes to safe and effective performance in complex aviation operational environments.

Operations are conducted as part of recreational, commercial and military aircraft activities across a variety of operational contexts within the Australian aviation industry.

Work is performed independently or under limited supervision within a single-pilot or multi-crew RPAS environment.

Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Use for Defence Aviation is to be in accordance with relevant Defence Orders, Instructions, Publications and Regulations.

Pre-requisite Unit

Not applicable.

Competency Field

Y – Aircraft Operation and Traffic Management

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

1 Plan energy source requirements

1.1 Total en route and reserve energy source requirements are calculated and determined in accordance with RPAS type specific requirements

1.2 Adjusted allowances are made for possible abnormal or emergency situations

1.3 Energy source calculations are documented in accordance with workplace procedures

2 Manage energy source system

2.1 Energy source contents and quality are inspected and confirmed before launch

2.2 RPAS is configured to achieve desired profile, range or endurance status

2.3 Potential hazards are anticipated and relevant controls are implemented

2.4 Energy source system is operated in accordance with aircraft flight manual (AFM)/pilot's operating handbook (POH)

2.5 Energy source status is monitored throughout flight and is modified appropriately as circumstances change

2.6 Work health and safety (WHS)/occupational health and safety (OHS) procedures are followed at all times when carrying out energy source management procedures

3 Refuel/recharge RPAS

3.1 Appropriate precautions are undertaken to ensure the safety of personnel and property during refuelling/recharging operations

3.2 RPAS is correctly refueled/recharged in accordance with AFM/POH, WHS/OHS requirements, regulatory requirements and workplace 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.

- Energy source must include one or more of the following:
- battery charger
 - gas
 - liquid fuel
 - other power producing source
 - other renewable energy
 - power producing sources that power the on-board systems and thrust producing components of the specific RPAS
 - solar
- Energy source allowances must be made for one or more of the following:
- en route and destination meteorological forecasts
 - fixed energy source reserves
 - holding requirements
 - operational tasking requirements

Unit Mapping Information

This unit replaces and is equivalent to AVIY3078A Manage remote pilot aircraft systems (RPA) energy source.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>