



Australian Government

AVIF0019 Implement complex human factors in remote pilot aircraft systems beyond visual line of sight (BVLOS)

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 implement complex human factors in remote pilot aircraft systems (RPAS) beyond visual line of sight (BVLOS) in compliance with relevant regulatory and legislative requirements.

It includes the application of strategies to address human performance and communications skills needed to pilot effectively in BVLOS aviation environments. In addition, it includes maintaining situational awareness, assessing situations and making decisions, setting priorities, managing tasks and working with others in managing situational awareness.

In addition, it includes recognising signs of personal fatigue, employing fatigue risk management practices to minimise fatigue, and identifying fatigue in others.

This unit addresses non-technical skill requirements (mental, social and personal-management abilities) related to safety management duties of remote system operators and contributes to safe and effective performance in complex operational environments.

Operations are conducted as part of commercial and military remote operated system activities across a variety of operational contexts within the Australian aviation industry.

Work is performed independently or under limited supervision as a single operator or within a team environment.

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

Pre-requisite Unit

Not applicable.

Competency Field

F – Safety Management

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

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

1 Monitor and control remote pilot aircraft systems through aircraft instrumentation systems

1.1 Instrumentation necessary for the maintenance of stable flight are allocated to onboard automation systems

1.2 Supervision and control of systems are monitored effectively and communicated to other team members

1.3 Mode selections for automated systems are used appropriately accounting for own personal performance

1.4 Communication is maintained with all flight personnel in accordance with organisation procedures and legislative requirements

1.5 Information necessary to perform remote pilot aircraft system functions are interpreted and used for safe operation

1.6 Information needed for pilot decision making is assessed for accuracy and applied to maintain command

1.7 Situational awareness is maintained for the duration of the flight

2 Perform pilot duties using machine-human interface

2.1 Controlled flight is maintained using automated systems as appropriate

2.2 Onboard camera is used for flight control tasks where the camera is aligned with the longitudinal axis of the remote pilot aircraft system

2.3 Control station is monitored and configured to assess the status of the remote pilot aircraft system to identify and respond to abnormal conditions

2.4 Awareness is maintained by the pilot on the status of the control station power supply and back-up as necessary

2.5 Remote pilot aircraft system is manoeuvred appropriately ensuring that obstacles and infrastructure

are avoided

- 2.6 Pilot vigilance is maintained fully during extended periods of low workload
- 2.7 Control of the remote pilot aircraft system is transferred effectively between pilots during extended flight operations
- 2.8 Threats and emergency situations are addressed following flight procedures ensuring the safety of people and infrastructure

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.

Unit Mapping Information

No equivalent unit.

Links

AVI Training Package Companion Volume Implementation Guide available on VET Net: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>