



Australian Government

**AVIH0020 Operate remotely piloted
aircraft systems in extended visual line of
sight (EVLOS)**

AVIH0020 Operate remotely piloted aircraft systems in extended visual line of sight (EVLOS)

Modification History

Release	Comments
1	This unit of competency was first released in AVI Aviation Training Package Release 12.0.

Application

This unit involves the skills and knowledge required to operate remotely piloted aircraft systems (RPAS) in extended visual line of sight (EVLOS) in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes operating RPAS during normal flight and managing RPAS during abnormal and emergency procedures.

This unit addresses aviation technical skill requirements and physical, mental and task-management abilities related to equipment and system operations of flight or ground operations personnel and contributes to safe and effective performance in complex aviation operational environments.

Operations are conducted as part of 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/Regulatory Information

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

Pre-requisite unit(s)

Not applicable.

Competency field(s)

H - Route Planning and Navigation

Unit sector(s)

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	Operate RPAS during normal flight	1.1	Check and test command control systems for range of operations in EVLOS
		1.2	Manage crew resources prior to operations and conduct observer briefings including work health and safety procedures and relevant regulations
		1.3	Operate RPAS, sub-systems and devices to achieve operational requirements
		1.4	Monitor RPAS, sub-systems and devices using systematic scan techniques
		1.5	Analyse RPAS and flight environment information to identify actual and potential threats or errors
		1.6	Utilise RPAS automation to manage control station workload during EVLOS
		1.7	Implement checklist procedures during normal RPAS operations
		1.8	Maintain effective communications with control station and observer during EVLOS, class 1 and class 2 procedures
		1.9	Process relevant documentation according to workplace procedures
2	Operate RPAS during abnormal and emergency procedures	2.1	Identify, diagnose and communicate abnormal or emergency situations between the control station and the observer
		2.2	Maintain RPAS control at all times
		2.3	Implement RPAS abnormal or emergency checklist procedures to maintain safety of flight
		2.4	Decide, implement, evaluate and revise course of action to achieve safest outcomes

Range of conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Refer to the AVI Aviation Companion Volume Implementation Guide for non-essential items for this unit of competency.

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Assessment Requirements for AVIH0020 Operate remotely piloted aircraft systems in extended visual line of sight (EVLOS)

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least one occasion and include:

- adapting to differences in equipment and operating environment in accordance with workplace procedures
- applying and monitoring precautions and required action to minimise, control or eliminate identified hazards and taking appropriate action
- applying relevant legislation and workplace procedures
- communicating effectively with others
- completing relevant documentation
- identifying and correctly using relevant equipment
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting and following operational instructions and prioritising work
- interpreting remote pilot aircraft systems (RPAS) displays
- modifying activities depending on workplace contingencies, situations and environments
- operating communications equipment to required protocols
- performing systematic scan technique for monitoring RPAS, sub-systems and devices
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- reporting and rectifying problems, faults or malfunctions promptly in accordance with workplace procedures
- using automated systems to manage workload
- working collaboratively with others.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- abnormal and emergency procedures
- aeronautical decision-making processes relevant to RPAS operations undertaken in EVLOS

- class 1 and class 2 procedures
- command and control links
- effective communication techniques
- error management, including error types, causes and consequences
- human factors relevant to RPAS operations in extended visual line of sight (EVLOS)
- human performance and its limitations, including the senses, memory and situational awareness
- individual remote pilot aircraft sub-systems as applicable to RPAS type and relevant rating/endorsement requirements
- normal, minimum and maximum fuel pressures or energy sources levels and power draw
- observer briefings
- radio protocols between flight crew
- risk identification, analysis and control.

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 workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate 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 simulations
- applicable documentation, including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and PPE currently used in industry.

Mandatory Workplace Requirements

Assessment of performance evidence may be in a workplace setting or an environment that accurately represents a real workplace.

Unit Mapping Information

Previous Code and Title	Equivalence	Comments
AVIH0008 Operate remote pilot aircraft systems in extended visual line of sight (EVLOS)	Not equivalent	

Links

Companion volumes, including implementation guides, are found on the national training register - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>.