



Australian Government

**AVIF0050 Manage human performance
factors for remotely piloted aircraft
operations**

AVIF0050 Manage human performance factors for remotely piloted aircraft operations

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 manage human performance factors for remotely piloted aircraft systems (RPAS), in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes managing individual human performance, assessing individual basic health, identifying physiological conditions impacting RPAS operations and identifying signs of stress. It also includes identifying threats and errors in RPA operations and coordinating crew.

This unit addresses aviation non-technical skill requirements (mental, social and personal-management abilities) related to safety management duties of flight operations 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 as a single operator or within a team environment.

Licensing/Regulatory Information

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

Pre-requisite unit(s)

Not applicable.

Competency field(s)

F - Safety Management

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	Identify factors that affect human performance and airmanship	1.1	Impact of personality traits on RPAS operations
		1.2	Determine how experience will affect performance
		1.3	Assess skills, knowledge levels and their impact on performance
		1.4	Determine the effect of workplace environment on decision making and performance
		1.5	Determine the impact of aircraft type, size and complexity
		1.6	Assess operational area and the impact on human performance
2	Manage individual human performance	2.1	Monitor individual performance against operational requirements when conducting remote system operations
		2.2	Identify and manage signs of personal fatigue to maintain a safe operating environment
		2.3	Maintain situational awareness during remotely piloted aircraft operations
		2.4	Recognise degradation of individual physiological condition and implement appropriate strategies for a safe outcome
3	Identify physiological conditions impacting RPAS operations	3.1	Determine individual physiological differences and the impact on the maximum visual line of sight
		3.2	Assess the impact of vision enhancement on operations
		3.3	Assess visual illusions and their impact on visual line of sight

		3.4	Determine factors effecting visual line of sight
		3.5	Assess the effect of various physiological conditions and their effect on situational awareness
		3.6	Communicate limitations of physiological performance to others, where necessary, to maintain a safe operating environment
4	Identify signs of stress	4.1	Identify signs of stress to maintain a safe operating environment
		4.2	Identify the causes and effects of stress on operations
		4.3	Identify strategies to manage the signs of stress
5	Identify threats and errors in RPA operations	5.1	Identify potential environment or operational threats and errors likely to affect the safety of RPAS flights
		5.2	Implement checklists and workplace procedures to prevent errors
		5.3	Identify potential system threats and errors and their impact on the safe operation of RPAS
		5.4	Undertake continuous monitoring of all critical factors relevant to the safe progress of an RPAS operation
		5.5	Determine the difference between errors and violations
		5.6	Identify loss of situational awareness and rectify
6	Manage team performance and coordinate crew	6.1	Communicate in varying situations with culturally diverse, familiar and unfamiliar individuals, teams and crews
		6.2	Identify barriers and personality traits for communicating with crew members
		6.3	Establish and maintain clear communication with crew members during operations
		6.4	Brief and communicate with crew to improve situational awareness

		6.5	Determine the roles and responsibilities of crew members including skills and experience levels
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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.

Assessment Requirements for AVIF0050 Manage human performance factors for remotely piloted aircraft operations

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:

- briefing and managing people involved in RPA operations
- communicating effectively with others
- completing relevant documentation
- determining individual maximum visual line of sight
- following and applying relevant workplace procedures and regulations to manage human factors
- identifying human performance factors that may impact a safe operational environment
- identifying threats and errors in RPA operations
- maintaining effective communications and interpersonal relationships
- maintaining situational awareness during operations
- managing individual and crew performance in relation to human factors
- recognising and managing threats and errors
- recognising signs of degradation of physiological condition of self
- setting priorities and managing tasks.

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 include knowledge of:

- airmanship
- aspects of individuals that may affect the safe operation of the RPA
- disorientation during remotely piloted aircraft operations
- eye anatomy and its function during the day and night
- information processing and decision making
- limitations of the eye
- medical and psychological factors that may affect pilot performance in relation to operating remotely piloted aircraft

- methods of enhancing decision-making skills
- principles of stress management
- situational awareness during remotely piloted aircraft operations
- stress in relation to operating remotely piloted aircraft
- temporal factors relating to system latency
- threat and error management
- verbal and non-verbal communication
- vision enhancements within the definition of visual line of sight
- visual illusions.

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
AVIF0021 Manage human factors in remote pilot aircraft systems operations	Not equivalent	

AVIZ0005 Apply situational awareness in remote pilot aircraft systems operations	Not equivalent	
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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>.

AVI - Aviation Training Package Companion Volume Implementation Guide
at: <https://training.gov.au/training/details/AVI/summary>