Australian Government

AVIH3019 Navigate remote pilot aircraft systems

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 navigate remote pilot aircraft systems (RPAS), in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes preparing charts and flight plans, complying with airspace procedures, conducting departure procedures, and maintaining RPAS in operational areas. It also includes navigating RPAS in visual line of sight, applying lost link and radio communication procedures, and executing arrival procedures.

This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to route planning and navigation duties of aviation 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 remote pilot aircraft (RPA) 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

H – Route Planning and Navigation

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 Prepare charts and flight plan	1.1 Suitable maps, aeronautical charts and weather briefings for intended operation are selected and flight plan is prepared
	1.2 Pre-operations information and Notice to Airmen (NOTAM) is accessed, analysed and applied to flight plan
	1.3 Hazards are clearly indicated on charts and risk controls are implemented
	1.4 Effects of wind velocity, adverse environmental conditions and contingency actions are planned for
2 Comply with airspace procedures	2.1 Air traffic clearances are accessed and compliance with air traffic regulations is maintained
	2.2 Airspace procedures and protocols are followed
	2.3 Entrance into controlled airspace is undertaken by direction of controlling authorities
3 Conduct departure procedures	3.1 Remote pilot station is organised and essential information is accessed
	3.2 Departure administration tasks and communications are conducted
	3.3 Orientation to ground level is maintained
	3.4 Control of RPAS is given precedence over conducting navigation and communication tasks
	3.5 Situational awareness and lookout is maintained using a systematic scan technique
	3.6 Local and published noise abatement requirements and curfews are observed
	3.7 Separation with other air traffic is maintained
4 Maintain RPAS in operational area	4.1 Planned route is followed
	4.2 Communication tasks are completed

		4.3	RPAS endurance is monitored and energy reserve needs are revised
		4.4	Pre-descent or navigation turning point checks are executed
		4.5	Air traffic separation is maintained at all times
		4.6	RPAS is controlled
		4.7	Deteriorating visual meteorological conditions are recognised and appropriate RPAS corrective actions are taken
		4.8	Situational awareness and lookout is undertaken using a systematic scan technique
5	Navigate RPAS within visual line of sight	5.1	Visual line of sight of RPAS is maintained at all times
		5.2	Awareness of current and forecast weather conditions is maintained
		5.3	Systematic scan technique is implemented at all times
		5.4	Hazards and threats are identified and appropriately controlled
		5.5	Effects of wind velocity, adverse environmental conditions and contingency actions are responded to as required
		5.6	Situational awareness is maintained at all times
6	Apply lost link procedure	6.1	Lost link profile and routing is prepared and validated
		6.2	Fail-safe mechanism is reviewed and activated as required
7	Apply lost radio communication procedure	7.1	Lost radio communications procedure and profile are prepared and validated
		7.2	Back-up radio or alternate communication means are confirmed as required
8	Execute arrival procedures	8.1	Arrivals procedures are executed
		8.2	Lookout is maintained using a systematic scan technique
		8.3	Situational awareness is maintained at all times
		8.4	Local and published noise abatement requirements and curfews are observed

8.5   Separation with air traffic is maintained

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.

Navigation of RPAS tasks must include one or more of the following:	• visual line of sight (VLOS) • visual meteorological conditions • extended line of sight (E-LOS)

Unit Mapping Information

This unit replaces and is equivalent to AVIH3019A Navigate remote pilot aircraft (RPA).

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816

Australian Industry Standards