Australian Government

AVIH0016 Navigate aircraft under night visual flight rules

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 an aircraft under night visual flight rules (NVFR) in compliance with the relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes selecting, operating and monitoring navigation aids and systems, navigating aircraft at night, conducting diversions to revised routes or alternate aerodromes at night, and making visual approaches and departures at night. It also includes complying with air traffic control (ATC) rules and procedures for NVFR flights, and managing hazardous weather conditions.

This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to route planning and navigation duties of flight crew 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 environment.

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

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	**Select, operate and monitor navigation aids/systems**	**1.1** Navigation aids and systems appropriate for planned NVFR flight are selected and operated
		1.2 Ground-based and satellite-based navigational systems confidence and integrity checks are conducted, continuously monitored and maintained
2	**Navigate aircraft at night**	**2.1** External aircraft, cockpit and instrument lighting are configured and adjusted to allow reference to documentation, instruments and lookout
		2.2 Aircraft position fix is determined visually or with reference to navigation aid and systems using ground-based and/or satellite-based navigational systems
		2.3 Tracks are intercepted to and from stations and waypoints visually or with reference to navigation aids and systems using ground-based and satellite-based navigational systems
		2.4 Track is maintained within tolerances specified in published procedures
		2.5 Timings and fuel usage rates are assessed, revised and recorded in navigation log
		2.6 Situational awareness is maintained using a recognised navigation work cycle
		2.7 Station passage is recognised
		2.8 Global navigation satellite system (GNSS)/distance measuring equipment (DME) arc procedure is performed within tolerances specified in published procedures
		2.9 Planned route above lowest safe altitude (LSALT) is maintained
		2.10 Route and destination weather conditions are monitored and appropriate actions executed
		2.11 Descent point calculations are completed

3	**Conduct a diversion to revised route or alternate aerodrome at night**	**3.1**	Requirement for an unplanned diversion is recognised and confirmed
		3.2	Route to alternate aerodrome, navigation aid and /or revised track is determined
		3.3	Planned route height above LSALT is maintained
		3.4	Flight planned route is diverted to track to alternate aerodrome or navigation aid
		3.5	Operational information for alternate aerodrome/s is reviewed and applied in accordance with regulations and published procedures
		3.6	Fuel plan is reviewed and amended in accordance with regulations and published procedures
4	**Make visual departure at night**	**4.1**	Obstacle clearance is maintained visually at all times during departure until reaching LSALT
		4.2	Departure track is intercepted within five nautical miles (nm) of aerodrome
		4.3	Take-off and departures are conducted from aerodromes remote from ground lighting using instruments as the primary reference and ensuring after take-off checks are performed at a safe height
5	**Make visual approach at night**	**5.1**	Descent below LSALT is conducted in accordance with published procedures
		5.2	Track is maintained to destination aerodrome
6	**Comply with ATC rules and procedures for NVFR flights**	**6.1**	Separation from other air traffic under NVFR is maintained
		6.2	Airspace requirements are complied with
		6.3	Two-way communication is maintained with air traffic services and other aircraft
		6.4	ATC clearances and/or radar vectoring instructions are complied with
7	**Manage hazardous weather conditions**	**7.1**	Hazardous weather conditions are identified and risk management processes applied to maintain safety of

flight

7.2 Hazardous weather avoidance procedures are applied

7.3 Aircraft systems are employed to mitigate the effects of hazardous weather

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

This unit replaces and is equivalent to AVIH4013 Navigate remote pilot aircraft systems.

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