



Australian Government

AVIH0018 Implement flight planning procedures

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 visual flight rules (VFR) and instrument flight rules (IFR) planning procedures in compliance with the relevant regulatory requirements of the Civil Aviation Safety Authority (CASA), national and international civil aviation operating standards.

It includes assessing flight planning needs, determining aircraft flight instrument requirements, identifying operational flight documentation, and preparing charts and flight plans. It also includes flight route selection; determining operational requirements; submitting a flight plan, including search and rescue (SAR) requirements; and providing extended twin-engine operations (ETOPS) flight planning and flight support.

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

H – Route Planning and Navigation.

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Assess flight planning needs

PERFORMANCE CRITERIA

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

- 1.1** Operator flight planning objectives and factors contributing to and/or influencing these objectives are defined
- 1.2** Conflicting flight planning objectives, including commercial and safety imperatives, are identified
- 1.3** Direct operating costs of a flight plan, including fuel, resourcing, engineering, and navigational and ground handling factors, are considered and assessed for applicability to flight plan
- 1.4** Relationship between different flight planning objectives, including minimum fuel, maximum speed and thrust, minimum cost and varying operational requirements, is determined and applied
- 1.5** Value of flight plan in establishing track, distance, heading, speed, times, optimum route, altitudes, contingency planning, fuel consumption and reserves is assessed
- 1.6** Value of flight plan to air traffic services in establishing reporting points, flight information, region crossing and coordination, pre-departure clearances, and traffic flow coordination is assessed
- 1.7** Appropriate state/territory and operator authorisations are obtained to plan and manage a range of normal and abnormal flight operations
- 1.8** Flight planning process is applied while assessing a wide range of planning factors, including type of flight, weather, aircraft type, availability and performance, crew, payload, schedule, departure, en route and destination requirements, state/territory-based air service requirements, briefing, flight plan delivery and filing
- 1.9** International Civil Aviation Organization (ICAO) air traffic flight plan format, filing and performance-based navigation requirements are determined and applied to flight planning processes

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| 2 Determine aircraft flight instrument requirements | 2.1 Aircraft requirements for flight instruments are determined |
| | 2.2 Flight and navigation instruments, including minimum electrical lighting, navigation equipment, minimum equipment lists and any other requirements fitted to the aircraft, are identified and assessed to ensure they are suitable and acceptable for flight |
| 3 Identify operational flight documentation | 3.1 Essential operational documentation applicable to flight type is identified for use by flight crew |
| | 3.2 Applicable information contained in documents for flight planning and management is interpreted and applied |
| | 3.3 Aircraft library requirements, including operating manual suite, aeronautical information publications, logbooks and other relevant flight documents or electronic flight bag, are identified |
| 4 Prepare charts and flight plans | 4.1 Charts suitable for intended flight are identified, selected and prepared |
| | 4.2 Applicable information to prepare a flight plan that details tracks, distances, times, altitudes to be flown and fuel requirements to reach destination are obtained, analysed and applied |
| | 4.3 Meteorological, airways facilities, aerodrome and Notice to Airmen (NOTAM) information applicable to planning and conducting a flight is obtained, interpreted and applied |
| | 4.4 Navigation information applicable to flight planning is obtained, interpreted and applied |
| 5 Select flight routes | 5.1 Factors contributing to selecting optimum track noting operational requirements, weather, geography, airspace, aircraft limitations, great circle track and minimum time track are identified |
| | 5.2 Minimum time track on upper air charts is plotted |
| | 5.3 Preferred minimum time track is determined and modified as required |
| | 5.4 Fuel quantities more than minimum fuel are routinely considered, and cost of carriage is assessed and |

		determined in context of overall flight plan
6 Determine operational requirements	6.1	Suitability of aerodrome for flight operations is determined
	6.2	Operational constraints are complied with
	6.3	Holding, alternate and reserve fuel requirements due to weather, navigation aid availability and aerodrome lighting are determined in accordance with operational requirements
	6.4	Total fuel requirements are calculated
7 Submit a flight plan	7.1	All required safety conditions, limitations and regulations are met and gross error checks performed
	7.2	Flight crew briefing information is collated, including meteorological information, airport status, navigation aids, communication facilities, aircraft equipment and deviations, and reasons for flight plan submission
	7.3	An ICAO air traffic flight plan is compiled, filed and managed for changes, delays and cancellation purposes
	7.4	Flight plans are re-filed, as required, based on revised flight information, using fuel saving techniques and varying operational requirements
8 Provide ETOPS flight planning and flight support	8.1	ETOPS planning considerations and regulatory requirements are determined and applied to flight planning activities
	8.2	ETOPS approval processes are understood and implemented where necessary
	8.3	System redundancy levels appropriate to ETOPS are identified and applied to ETOPS flight planning activities
	8.4	ETOPS communication and navigation requirements between aircraft and relevant agencies and aids are determined and applied to ETOPS flight planning activities
	8.5	Required ETOPS take-off, destination and alternate aerodrome requirements are assessed for suitability and recorded within flight planning and flight crew operational documentation

- 8.6** Actual or forecast weather conditions for duration of planned flight are assessed for ETOPS planning purposes
- 8.7** Aircraft performance data is interpreted and applied to ETOPS flight planning activities
- 8.8** Relevant flight support information and assistance is provided to pilot in command (PIC) for ETOPS flight planning and normal flight situations
- 8.9** Relevant flight support information and assistance is provided to PIC during abnormal or emergency ETOPS situations

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.

Non-essential conditions may be found in the AVI Aviation Training Package Companion Volume Implementation Guide.

Unit Mapping Information

New unit. No equivalent unit.

Links

Companion Volume Implementation Guides are found in VETNet' -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=4725260a-0af3-4daf-912b-ef1c2f3e5816>