



Australian Government

AVIY5038 Conduct a 2D global navigation satellite system non-precision instrument approach

Release: 1

AVIY5038 Conduct a 2D global navigation satellite system non-precision instrument approach

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 conduct a 2D instrument approach using global navigation satellite system (GNSS) or non-precision approach (NPA) procedures, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority and national operating standards.

It includes selecting approach and determining minima, selecting, retrieving and activating the approach from a database, and monitoring GNSS signal integrity. It also includes conducting initial approach, conducting holding patterns, conducting approach procedure, and conducting missed approach procedure.

This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to aircraft operational 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.

Use for Defence Aviation is to be in accordance with relevant Defence Orders, Instructions, Publications and Regulations.

Pre-requisite Unit

Not applicable.

Competency Field

Y – Aircraft Operation and Traffic Management

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 approach and determine applicable minima

- 1.1 Current instrument approach and landing (IAL) chart for GNSS/NPA approach to be flown is selected
- 1.2 Entry to and conduct of instrument approach and missed approach procedure are reviewed and briefed to flight crew
- 1.3 Currency of GNSS receiver database is confirmed
- 1.4 Applicable meteorological minima of approach for aircraft performance category is determined
- 1.5 Fuel availability and holding or diversion action if visual reference is not established, is reviewed and briefed to flight crew

2 Select, retrieve and activate approach from database

- 2.1 GNSS approach for appropriate runway from GNSS receiver navigation database, is selected
- 2.2 Initial approach fix to be used to transition approach procedure is selected
- 2.3 Aerodrome altimeter subscale setting to obtain elevation or altitude (QNH) in GNSS receiver is entered, and approach is activated
- 2.4 Confidence check of tracks and distances between approach way-point (WPT) as calculated by the GNSS receiver, is performed
- 2.5 Course deviation indicators (CDI) are checked and selected to GNSS as required

3 Monitor GNSS signal integrity

- 3.1 Receiver autonomous integrity monitoring (RAIM) is checked for availability on the approach
- 3.2 RAIM indications are monitored throughout the approach

4 Conduct initial approach

- 4.1 Altimeter is set to appropriate QNH
- 4.2 Track to initial approach WPT is maintained at or above route minimum safe altitude (MSA) or lowest safe altitude (LSALT)

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| 5 Conduct holding pattern | 5.1 Automatic sequencing of GNSS is suspended |
| | 5.2 Published holding pattern is conducted at appropriate initial approach WPT using prescribed sector entry procedure |
| | 5.3 Automatic sequencing is resumed to continue approach |
| 6 Conduct approach procedure | 6.1 GNSS/NPA instrument approach is conducted while descending on specified track to each approach WPT |
| | 6.2 Approach altitude restrictions are complied with |
| | 6.3 GNSS receiver transitions to approach mode is confirmed no later than the final approach point (FAP), WPT or discontinue approach |
| | 6.4 Secondary navigation aid is utilised to maintain situational awareness |
| | 6.5 Descent to not below the minimum descent altitude (MDA) while tracking to the missed approach point, is conducted within tolerances |
| | 6.6 Landing runway is identified |
| | 6.7 Runway or circling approach for landing is conducted after visual reference is established |
| 7 Conduct missed approach procedure | 7.1 Conditions requiring a missed approach are recognised and missed approach is initiated |
| | 7.2 Published missed approach procedure is executed if visual reference is not established before reaching the MAPt or RAIM |
| | 7.3 Missed approach is conducted on any other event specified in aeronautical information publication (AIP) or GNSS operations manual |
| | 7.4 Aircraft is manoeuvred to MAPt |
| | 7.5 Missed approach mode is selected |
| | 7.6 Missed approach procedure is conducted in accordance with IAL chart |
| | 7.7 GNSS receiver is configured to conduct another approach or to hold or divert as required |
| | 7.8 Obstacle clearance in instrument meteorological conditions |

(IMC) 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.

Unit Mapping Information

This unit replaces and is equivalent to AVIY5038A Perform global positioning system (GNSS)/non-precision approach (NPA).

Links

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