



Australian Government

AVIY0045 Conduct a 3D instrument approach

Release: 1

AVIY0045 Conduct a 3D 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 3D instrument approach in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes preparing for an approach, conducting the initial approach and conducting a holding pattern. It also includes conducting an approach and conducting a missed approach.

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 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

Y – Aircraft Operations and Traffic Management

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

- | | |
|------------------------------------|--|
| 1 Prepare for approach | 1.1 Latest available information for destination is reviewed |
| | 1.2 Navigation system validity check is conducted as applicable |
| | 1.3 Receiver autonomous integrity monitoring (RAIM)/satellite-based augmentation system (SBAS) check is conducted as required |
| | 1.4 Flight plan is selected, loaded, checked and activated as applicable |
| | 1.5 Current approach chart for approach to be flown is selected and briefed |
| | 1.6 Navigation aid required for approach is checked and confirmed as serviceable |
| 2 Conduct initial approach | 2.1 Altimeter QNH is set correctly |
| | 2.2 Aircraft is manoeuvred to the holding fix |
| 3 Conduct a holding pattern | 3.1 Holding pattern is entered and performed from the holding fix |
| | 3.2 Aircraft is flown in accordance with relevant approach procedure requirements |
| 4 Conduct an approach | 4.1 Altimeter QNH is updated and set |
| | 4.2 Automation is used appropriately |
| | 4.3 Navigation aid signal integrity is monitored during approach |
| | 4.4 Vertical and lateral flight path is flown within published tolerances |
| | 4.5 Specified altitude check on glide slope is performed |
| | 4.6 Aircraft is flown to a stabilised descent profile from the final approach fix to minima |
| | 4.7 Visual reference is established and a visual circling or runway approach conducted for a landing on the selected runway |
| 5 Conduct a missed | 5.1 Missed approach conditions are recognised and missed |

approach

approach is initiated

- 5.2 Aircraft is manoeuvred to the missed approach point (MAPt)
- 5.3 Missed approach procedure is conducted in accordance with the instrument approach and landing (IAL) chart
- 5.4 Obstacle clearance in instrument meteorological conditions (IMC) or simulated 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 AVIY0014 Conduct a 3D instrument approach.

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>

Assessment Requirements for AVIY0045 Conduct a 3D instrument approach

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least one occasion and include:

- adapting to differences in equipment and operating environment in accordance with standard operating procedures
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant aeronautical knowledge
- applying relevant legislation and workplace procedures
- communicating effectively with others
- completing relevant documentation
- determining 3D approach procedure applicable minima for aircraft
- determining conditions permitting descent below minima
- identifying and correctly using equipment required to conduct a 3D instrument approach
- implementing contingency plans
- implementing work health and safety (WHS) procedures and relevant regulations
- interpreting 3D instrument approach procedure chart
- modifying activities depending on workplace contingencies, situations and environments
- monitoring aid signal integrity
- monitoring and anticipating operational problems and hazards and taking appropriate action
- monitoring work activities in terms of planned schedule
- operating electronic communications equipment to required protocol
- performing systematic scan techniques
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- reporting and/or rectifying identified problems promptly in accordance with regulatory requirements and workplace procedures
- selecting and using required personal protective equipment (PPE) conforming to industry and WHS standards
- selecting approach and determining applicable minima
- setting local or area QNH at appropriate stages of flight
- working collaboratively with others.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- conducting 3D instrument approach, including:
 - instrument landing system (ILS)
 - microwave landing system (MLS)
 - global navigation satellite system (GNSS) with ground-based augmentation (GBA)
 - required navigation performance (RNP)-lateral navigation (LNAV)/vertical navigation (VNAV) barometric (baro) and RNP localizer performance with vertical guidance (LPV) (Wide Area Augmentation System [WAAS]) as required
- abnormal operations and emergencies procedures during an approach, including navigation aid failure
- adjustment to baro-determined minima for temperature effect
- automation and flight management system (FMS) management for low-visibility operations
- Civil Aviation Safety Regulation (CASR) Part 61 Manual of Standards (MOS) Schedule 3 Aeronautical Knowledge relevant to instrument flight operations
- contaminated runway operations
- equipment redundancy during low-visibility operations
- low-visibility operations and environmental limitations
- runway markings and lighting
- runway visual range (RVR) versus slant visual range (SVR)
- temperature effects on altimeter
- types of approach lighting systems
- use of and precautions with approach slope indicators.

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 this is not appropriate, assessment must occur in simulated workplace operational situations that reflect 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
- acceptable means of simulation assessment

- applicable documentation, including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and PPE currently used in industry.

Links

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