



Australian Government

AVIY5034 Conduct a 2D non-directional beacon instrument approach

Release: 1

AVIY5034 Conduct a 2D non-directional beacon 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 the non-directional beacon (NDB) procedure, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority and national operating standards.

It includes selecting approach and determining applicable minima, and monitoring aid signal integrity. It also includes conducting initial approach, holding pattern, instrument approach, and missed approach procedures.

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

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

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| 1 Select approach and determine applicable minima | 1.1 Current instrument approach and landing (IAL) chart for the NDB approach to be flown is selected |
| | 1.2 IAL is reviewed and briefed to flight crew in relation to directing entry to the approach, lowest safe altitude (LSALT) or minimum safe altitude (MSA) is maintained prior to entry and tracks, distances, timing and descent limitations are maintained for the approach |
| | 1.3 Fuel availability and latest divert time procedures are enacted as required |
| 2 Monitor aid signal integrity | 2.1 NDB to be used for selected approach is tuned and identified |
| | 2.2 Morse code identification and NDB indications are monitored throughout selected approach to ensure signal integrity |
| 3 Conduct initial approach | 3.1 Altimeter is set to appropriate QNH |
| | 3.2 Aircraft is manoeuvred to holding fix on an inbound track and at or above route MSA or LSALT is maintained in accordance with aeronautical information publication (AIP) requirements, using the NDB |
| 4 Conduct holding pattern | 4.1 Aircraft holding pattern from the holding fix at or above LSALT or MSA is entered in accordance with specified sector entry |
| | 4.2 Holding pattern is performed in accordance with AIP, using the NDB |
| 5 Conduct instrument approach procedure | 5.1 Altimeter QNH is updated and set prior to approach commencement |
| | 5.2 Instrument approach is conducted in accordance with tolerances specified in AIP using the NDB |
| | 5.3 Landing runway is identified |
| | 5.4 After establishing visual reference, a visual circling or runway approach is conducted for a landing on selected runway, in accordance with AIP |

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| 6 Conduct missed approach procedure | 6.1 Conditions requiring a missed approach are recognised and missed approach is initiated |
| | 6.2 Aircraft is manoeuvred to missed approach point (MAPt) |
| | 6.3 Missed approach procedure is conducted in accordance with the IAL chart |
| | 6.4 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 AVIY5034A Perform non-directional beacon (NDB) instrument approach.

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for AVIY5034 Conduct a 2D non-directional beacon 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 and performance criteria 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 conditions permitting descent below minima
- determining non-directional beacon (NDB) approach procedure applicable minima for aircraft
- identifying and correctly using relevant equipment
- implementing contingency plans
- implementing work health and safety (WHS)/occupational health and safety (OHS) procedures and relevant regulations
- interpreting NDB instrument approach procedure chart
- modifying activities depending on workplace contingencies, situations and environments
- 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 clothing and equipment conforming to industry and WHS/OHS standards
- setting local or area barometric pressure adjusted for sea level (QNH) at appropriate stages of flight
- working collaboratively with others
- working systematically with required attention to detail without injury to self or others, or

damage to goods or equipment.

Knowledge Evidence

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

- 2D instrument approach procedures and limitations:
 - initial approach
 - holding pattern
 - instrument approach procedure
 - missed approach procedures
 - instrument approach procedures and limitations
- abnormal operations and/or emergency procedures for an NDB approach, including navigation aid failure
- aid signal integrity monitoring techniques
- CASR Part 61 Manual of Standards Schedule 3 Aeronautical Knowledge relevant to instrument flight operations
- emergency procedures
- how to operate electronic communications equipment
- loss of radio communication during an NDB approach procedure
- minimum obstacle clearance criteria during an NDB approach procedure/missed approach procedure
- procedure for joining the circuit from an NDB approach procedure
- procedures for adjusting controls to optimise equipment operation
- procedures for managing and controlling hazardous situations
- radio procedures for an NDB approach
- reading, interpreting and following relevant regulations, instructions, procedures, information and signs
- relevant sections of national and state/territory regulatory requirements and codes of practice
- relevant WHS/OHS and environmental procedures and regulations
- requirements for completing relevant documentation
- sector entry join procedures for entering the holding pattern of an NDB approach
- sources of information on differences in equipment and related standard operating and servicing procedures
- steps involved in planning work activities
- tracking tolerance and altitude limitations for flying a published distance measuring equipment (DME) arc of an NDB approach procedure.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

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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.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

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 personal protective equipment currently used in industry.

Links

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