Australian Government

AVIY0079 Conduct a 3D instrument landing system instrument approach

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 conduct a 3D instrument approach using instrument landing system (ILS) procedures in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes selecting and preparing for approach, and monitoring aid signal integrity. It also includes conducting initial approach, holding pattern, 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 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 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 and prepare for the approach	**1.1** Current instrument approach and landing (IAL) chart for the ILS approach to be flown is selected
	1.2 Navigation system validity and receiver autonomous integrity monitoring (RAIM)/space-based augmentation system (SBAS) checks are conducted as required
	1.3 Instrument approach and missed approach procedure is planned and self-briefed or briefed to flight crew as required
	1.4 Direct entry to the approach is reviewed, briefed to flight crew and evaluated
	1.5 Entry via holding pattern is reviewed, briefed to flight crew and evaluated
	1.6 Minimum altitude, lowest safe altitude (LSALT) or minimum safe altitude (MSA) prior to approach entry is reviewed and briefed to flight crew in relation to tracks, distances, timing and descent limitations
	1.7 Applicable approach minima for aircraft performance category and runway to be used is selected
	1.8 Pressure error correction for decision altitude (DA) is selected
	1.9 Holding or diversion action if visual reference is not established, is reviewed and briefed
	1.10 Fuel availability and latest divert time is selected as required
	1.11 Aircraft systems are configured for approach and altimeter is set to appropriate QNH
2 Monitor aid signal integrity	**2.1** ILS to be used for selected approach is tuned and identified
	2.2 Warning flags and course deviation indicators (CDI) for localiser (LLZ) and glide slope is monitored throughout the approach to ensure signal integrity
	2.3 Locator beacons for approach are tuned and identified

		2.4	Marker beacon/s are tested and monitored for visual and aural indications during approach
		2.5	Distance measuring equipment (DME) is tuned and identified or global navigation satellite system (GNSS) is configured for ILS approach as required
		2.6	DME/GNSS is monitored for distance indications during applicable approach
3	**Conduct initial approach**	**3.1**	Altimeter is set to appropriate QNH
		3.2	Holding fix is identified and aircraft is manoeuvred to appropriate sector entry position
4	**Conduct holding pattern**	**4.1**	Holding pattern at or above LSALT or MSA is entered in accordance with specified sector entry
		4.2	Holding pattern is performed in accordance with instructions in aeronautical information publication (AIP), using the LLZ and any other navigation aids
5	**Conduct approach procedure**	**5.1**	Aircraft is tracked to initial approach fix using appropriate tracking aids or radar vectors at or above route MSA or LSALT, to intercept the LLZ track
		5.2	ILS approach is conducted from initial approach fix with tracking by reference to LLZ and descent by reference to glide path
		5.3	Marker beacons, DME/GNSS or approved alternative fix are used to provide distance indications
		5.4	Specified altitude check on glide slope is performed
		5.5	Continued descent on glide slope to the DA is performed in accordance with AIP
		5.6	Landing runway is identified
		5.7	Runway or circling approach for a landing is conducted in accordance with AIP after visual reference is established
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 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 AVIY5036A Perform instrument landing system (ILS) 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