



Australian Government

Department of Education, Employment and Workplace Relations

AVIY5027A Perform instrument departure - non published procedure

Revision Number: 1

AVIY5027A Perform instrument departure - non published procedure

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit involves the skills and knowledge required to plan and conduct a departure from an aerodrome without a published instrument departure procedure, i.e. non Standard Instrument Departure (SID) or Standard Radar Departure (SRD). It covers intercepting track within 5 nm, while maintaining obstacle clearance during climb to Lowest Safe Altitude (LSALT). This includes managing traffic separation using the radiotelephone in Instrument Meteorological Conditions (IMC)/simulated IMC under the Instrument Flight Rules (IFR). Licensing, legislative, regulatory or certification requirements are applicable to this unit.

Application of the Unit

Application of the Unit

Work must be carried out in compliance with the relevant licence and aircraft rating requirements of the Civil Aviation Safety Authority (CASA); relevant airspace control requirements and Instrument Flight Rules (IFR); and aircraft control principles, regulations, safety codes, protocols and procedures relevant to performing an instrument departure - non published procedure as part of commercial aircraft activities.

Use for ADF Aviation is to be in accordance with relevant Defence Orders and Instructions and applicable CASA compliance.

Operations are conducted across a variety of operational contexts within the Australian aviation industry.

Work is performed under limited supervision.

This unit of competency is packaged at AQF V.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Determine applicable standards for an instrument departure (non SID/SRD)	1.1 Standard take-off minima is determined in accordance with the aerodrome using Aeronautical Information Publication (AIP) 1.2 Departure is planned to ensure the aircraft can maintain obstacle and terrain clearance after take-off and during the climb to LSALT 1.3 Ceiling minima is increased and/or track is planned to ensure terrain clearance is maintained when required
2 Take off and climb to cruising altitude/level under the IFR (non SID/SRD)	2.1 Appropriate checklist items are completed and confirmed to ensure the aircraft systems applicable to the instrument take-off are operating correctly 2.2 Radios, navigation aids and flight instruments are set to the desired setting prior to initiating the take-off 2.3 Track, altitude requirements and emergency procedures are reviewed and briefed for an instrument departure 2.4 Climb to cruising altitude/level after take-off is achieved 2.5 Obstacle and terrain clearance is maintained below LSALT while intercept track is maintained within 5 nm of the departure aerodrome 2.6 Transitions from visual meteorological conditions to actual or simulated instrument meteorological conditions are performed without loss of control of the aircraft 2.7 Radio transmissions are performed in accordance with AIP requirements 2.8 Separation from other traffic is maintained

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

- Take-off minima for single or multi engine aircraft at aerodromes without suitable instrument departure procedures
- Obstacle and terrain clearance requirements after take-off and during the climb to LSALT
- Conditions required to effect a take-off with no meteorological forecast
- Departure procedure for a non-published instrument departure
- Transponder code requirements for the flight
- Requirement for establishing aircraft on departure track
- Content and timing of airborne and departure reports
- Pilot's responsibility in an IFR visual departure
- Procedures for loss of radio communication
- Procedures for abnormal operations and/or emergencies

Required skills:

- Calculate standard take-off minima
- Communicate effectively with others whilst performing a non published instrument departure
- Read, interpret and comply with instructions, regulations, procedures and other information relevant to performing a non published instrument departure
- Interpret and follow operational instructions and prioritise workload
- Complete documentation related to a non published instrument departure
- Operate electronic communication equipment to required protocol
- Work collaboratively with others when performing a non published instrument departure
- Adapt appropriately to cultural differences in the workplace, including modes of behaviour and interactions with others
- Promptly report and/or rectify any identified problems that may occur when performing a non published instrument departure in accordance with regulatory requirements and workplace procedures
- Implement contingency plans for unexpected events that may arise when performing a non published instrument departure
- Apply precautions and required action to minimise, control or eliminate hazards that may exist while performing a non published instrument departure
- Monitor and anticipate operational problems and hazards and take appropriate action
- Monitor work activities in terms of planned schedule
- Modify activities dependent on differing workplace contingencies, situations and environments

REQUIRED KNOWLEDGE AND SKILLS

- Work systematically with required attention to detail without injury to self others, or damage to goods or equipment
- Adapt to differences in equipment and operating environment in accordance with standard operating procedures
- Select and use required personal protective clothing and equipment conforming to industry and OH&S standards
- Implement OH&S procedures and relevant regulations
- Identify and correctly use equipment required to perform a non published instrument departure

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

- The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:
 - the underpinning knowledge and skills
 - relevant legislation and workplace procedures
 - other relevant aspects of the range statement

Context of and specific resources for assessment

- Performance is demonstrated consistently over a period of time and in a suitable range of contexts
- Resources for assessment include:
 - a range of relevant exercises, case studies and/or other simulated practical and knowledge assessment, and/or
 - access to an appropriate range of relevant operational situations in the workplace
- In both real and simulated environments, access is required to:
 - relevant and appropriate materials and equipment, and
 - applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

- Assessment of this unit must be undertaken by a registered training organisation
- As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests
- Practical assessment must occur:
 - through activities in an appropriately simulated environment at the registered training organisation, and/or
 - in an appropriate range of situations in the workplace

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

- | | |
|-------------------------------------|--|
| Tasks may be undertaken in: | <ul style="list-style-type: none">• IMC• VMC with simulated IMC conditions |
| Performance may be demonstrated in: | <ul style="list-style-type: none">• single engine aircraft• multi engine aircraft• synthetic training device approved by the appropriate authority• variable air traffic conditions• variable weather conditions• variable flight situations• abnormal situations• classes of airspace as designated by the Civil Aviation Safety Authority |
| Aircraft may include: | <ul style="list-style-type: none">• fixed wing• helicopter• other commercial or military aircraft |
| Crew may include: | <ul style="list-style-type: none">• single pilot• multi crew |
| Instruments may be: | <ul style="list-style-type: none">• flight instruments suitable for instrument flight• head up display suitable for instrument flight |
| Limitations may be imposed by: | <ul style="list-style-type: none">• local noise abatement requirements and curfews• airspace endorsements |
| Classes of airspace may be: | <ul style="list-style-type: none">• as designated by the regulator• restricted and danger areas• military control zones• Air Defence Identification Zones |
| Navigation aids may include: | <ul style="list-style-type: none">• ADF (Automatic Direction Finder)• VOR (VHF Omni-directional Radio Range)• DME (Distance Measuring Equipment)• RADAR• GPS (Global Positioning System)• FMS (Flight Management Systems)• Moving Map Displays• TACAN• INS |
| Conditions may include: | <ul style="list-style-type: none">• a method of simulating IMC• simulated icing conditions |

RANGE STATEMENT

	• moderate turbulence • simulated hazardous weather • Autopilot/Flight Director • FMS/ other NAV system • simulation of emergency and abnormal procedures
Dependent on the type of organisation concerned and the local terminology used, workplace procedures may include:	• company procedures • enterprise procedures • organisational procedures • established procedures • standard operating procedures
Information/documents may include:	• relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders • in Defence context, relevant Defence Orders and Instructions • Flight Manual/Pilot's Operating Handbook (POH) • Manual of Standards - Pilot Licensing (MOS-PL) • Aeronautical Information Publication (AIP) • En Route Supplement Australia (ERSA) • charts • operations manuals • approved checklists • workplace procedures and instructions and job specification • induction and training materials • conditions of service, legislation and industrial agreements including workplace agreements and awards
Applicable regulations and legislation may include:	• relevant Civil Aviation Safety Regulations and Civil Aviation Orders • in Defence context, relevant Defence Orders and Instructions • relevant state/territory OH&S legislation • relevant state/territory environmental protection legislation • relevant Australian Standards
Performance includes tolerances specified in either of:	• relevant licence and aircraft rating requirements of the Civil Aviation Safety Authority (CASA) such as: • Manual of Standards • relevant Defence documentation such as: • Defence Orders and Instructions • approved curricula and training documentation

Unit Sector(s)

Not applicable.

Competency field

Competency Field Y - Aircraft Operation and Traffic Management