



Australian Government

Department of Education, Employment and Workplace Relations

AVIY5024A Operate aircraft in the traffic pattern at night

Revision Number: 1

AVIY5024A Operate aircraft in the traffic pattern at night

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit involves the skills and knowledge required to take off, land and operate an aircraft safely in the traffic pattern at night. 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 Night Visual Flight Rules (NVFR); and aircraft control principles, regulations, safety codes, protocols and procedures required to operate aircraft in the traffic pattern at night 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 Taxi at night	1.1 Instrument/cockpit lighting are adjusted to an appropriate level for taxiing 1.2 ATC instructions and manoeuvres of the aircraft on the ground at night within the approved movement area as defined by aerodrome ground lighting are complied with 1.3 Aircraft lighting to identify obstructions, other aircraft and taxiway and runway limits is used as required 1.4 Aircraft is taxied at a speed which allows for an adequate lookout to be maintained to avoid obstructions
2 Take off at night	2.1 Aircraft is lined up correctly in centre of runway in take-off direction 2.2 Line up checks appropriate to night take-off are completed 2.3 Take-off by reference to flare path/runway lighting and aircraft instruments is executed 2.4 Aircraft is rotated at manufacturers recommended speed 2.5 Climb attitude and control aircraft in climb, after take-off solely by reference to instruments is completed 2.6 Alignment with runway by visual reference and lookout is established and maintained 2.7 After take-off, checks are performed at a safe height
3 Land at night, with and without the use of aircraft landing lights	3.1 Circuit entry and pattern are performed with reference to runway environment 3.2 Safe altitude is maintain by reference to aircraft instruments and runway lighting 3.3 Aircraft is safely landed at night with and without landing lights 3.4 After landing checks are performed
4 Make go-around	4.1 The need to conduct a go-around is recognised 4.2 Go-around is performed from any point on base and final approach legs
5 Activate Pilot Activated Lighting (PAL)	5.1 Appropriate radiotelephone frequency is utilised to activate PAL system when within radio range 5.2 Transmit sequence is utilised to activate PAL system 5.3 Wind indicator lighting is monitored to determine end of activation period
6 Manage emergency situations at night	6.1 (In simulated conditions) Aircraft control is maintained 6.2 Emergency situation is managed in accordance with Flight Manual, POH and AIP 6.3 Electrical lighting and power sources are monitored

ELEMENT

PERFORMANCE CRITERIA

6.4 Electrical lighting and power source emergency procedures are conducted as appropriate

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

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

Required knowledge:

- Night circuit procedures
- Light signals used in the circuit area at night
- Colours and patterns of aerodrome lighting
- Method of activating an aerodrome frequency response unit with PAL options
- Time that PAL remains illuminated
- PAL system warning indications that the lights are about to be extinguished
- Operation and use of a VASI, PAPI system
- Identification of aerodromes with standby power
- Electrical system management as recommended in the applicable Flight Manual/POH
- Procedures for operating electronic communications equipment
- Requirements for completing relevant documentation
- Fuel tank capacity and range (where applicable)
- Communication equipment checks

Required skills:

- Utilise secondary lighting and power sources
- Utilise fault finding for system failures
- Communicate effectively with others when operating an aircraft in the traffic pattern at night
- Read and interpret instructions, regulations, procedures and other information relevant to operating an aircraft in the traffic pattern at night
- Interpret and follow operational instructions and prioritise work
- Complete documentation related to operating an aircraft in the traffic pattern at night
- Operate electronic communication equipment to required protocol
- Work collaboratively with others when operating an aircraft in the traffic pattern at night
- 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 operating an aircraft in the traffic pattern at night in accordance with regulatory requirements and workplace procedures
- Implement contingency plans for unexpected events that may arise when operating an aircraft in the traffic pattern at night
- Apply precautions and required action to minimise, control or eliminate hazards that may exist

REQUIRED KNOWLEDGE AND SKILLS

while operating an aircraft in the traffic pattern at night

- 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
- 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 while operating an aircraft in the traffic pattern at night

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:
- night VFR conditions
- Performance may be demonstrated in:
- single engine aircraft
 - multi engine aircraft
 - synthetic training device approved by the appropriate authority
- Aircraft may include:
- fixed wing
 - helicopter
 - other commercial or military aircraft
- Crew may include:
- single pilot
 - multi crew
- Instruments may be:
- fitted flight instruments suitable for NVFR flight
 - head up display suitable for NVFR flight
- Limitations may be imposed by:
- local noise abatement requirements and curfews
 - airspace endorsements
- Classes of airspace may be:
- as designated by the regulator
 - restricted and danger areas
 - military control zones
 - Air Defence Identification Zones
- Emergency situations may include:
- engine failure
 - communication or navigation aid failure
 - electrical system failure
 - lighting system failure
- Conditions may include:
- simulated icing conditions
 - moderate turbulence
 - simulated hazardous weather
 - autopilot/Flight Director
 - FMS/ other NAV system
 - simulation of emergency and abnormal procedures
- Aerodrome may include
- ground lighting
 - remote of ground lighting
- 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

RANGE STATEMENT

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