



Australian Government

Department of Education, Employment and Workplace Relations

AVIH4012A Plan a flight under Night Visual Flight Rules (NVFR)

Revision Number: 1

AVIH4012A Plan a flight under Night Visual Flight Rules (NVFR)

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit involves the skills and knowledge required to plan and make flight notification for a Night Visual Flight Rules (NVFR) flight using all applicable current operational documents, after obtaining and applying pre-flight briefing information and allowing for operational requirements. 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 plan a flight under Night Visual Flight Rules 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 aircraft meets requirements for NVFR flight	1.1 Aircraft requirements for NVFR flight are determined 1.2 Flight and navigation instruments, minimum electrical lighting and navigation equipment and any other requirements which are fitted to the aircraft are checked to ensure they are suitable and serviceable for NVFR flight
2 Obtain and use current operational documents	2.1 Operational documents applicable to the flight are obtained and checked for currency 2.2 Applicable information contained in documents for flight planning and management is interpreted and applied 2.3 Documents required for the flight are stowed and accessibility for the pilot during flight is ensured
3 Prepare flight plan for NVFR flight	3.1 Charts suitable for intended NVFR flight are selected and prepared 3.2 Applicable information to prepare a flight plan which details tracks, distances, times, altitudes to be flown and fuel requirements to reach destination are obtained, analysed and applied 3.3 Meteorological, airways facilities, aerodrome and NOTAM information applicable to planning and conducting a flight is obtained, interpreted and applied 3.4 Routes to optimise options in the event of an engine failure are planned
4 Determine operational requirements	4.1 Suitability of the aerodrome lighting for night operations is determined 4.2 Curfew requirements are complied with 4.3 Duration of flight is determined 4.4 Holding, alternate and reserve fuel requirements due to weather, navigation aid availability and aerodrome lighting are determined in accordance with operational requirements 4.5 Total fuel requirements are calculated
5 Make flight notification	5.1 Flight notification is prepared for planned NVFR flight 5.2 Completed flight notification is submitted 5.3 Flight notification acceptance is confirmed
6 Program navigation system	6.1 Prepare data for transfer to approved airborne navigation system 6.2 Navigation data is loaded and checked

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

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

Required knowledge:

- Pilot medical fitness and qualifications necessary for night visual flight
- Privileges of the Night VFR rating
- Specification of the aircraft flight instruments required for night visual flight
- Specification of the aircraft electrical lighting, radio communication and navigation equipment required for night visual flight
- Limit of Night VFR operations in a single-engine aircraft
- Requirements for submission of flight notification and SARWATCH
- Speed restrictions for night visual flight
- Requirements for in-flight progress reports
- Procedures for flight plan amendments and revised estimates for a night visual flight
- Documents required to be carried on a night visual flight
- Validity of a given meteorological forecast for a night visual flight
- Aerodrome lighting and curfew requirements for night operations
- Relevant sections of Civil Aviation Safety Regulations and Civil Aviation Orders
- In ADF context, relevant Defence Orders and Instructions
- Relevant OH&S and environmental procedures and regulations
- Airspace requirements and procedures under NVFR conditions
- NVFR route planning requirements
- Use of the navigational computer
- Aircraft fuel planning including holding, alternate, fixed reserve and usage rates
- Visual and instrument flight rules and procedures
- Factors affecting en route performance, range and endurance
- Critical point and point of no return
- Meteorological considerations for a NVFR flight
- Requirements for an alternate aerodrome
- Aerodrome and en route holding procedures
- NVFR cruising levels, selection and hazards
- Limitations and errors of navigations aids/systems
- Icing conditions and hazards

Required skills:

REQUIRED KNOWLEDGE AND SKILLS

- Determine the currency of operational documents
- Extract and apply relevant information from operational documents
- Determine the meteorological forecasts required for a night visual flight
- Determine whether a flight should proceed based on available meteorological forecasts
- Determine alternate aerodrome requirements and suitability for a night visual flight to a specified destination given relevant information including NOTAMs
- Determine holding requirements due to weather, traffic or traffic advisory
- Determine fuel quantity required for a night visual flight
- Interpret navigation charts
- Interpret meteorological forecasts
- Calculate fuel requirements
- Select suitable navigation aids/systems
- Communicate effectively with others when planning a flight under NVFR
- Read and interpret instructions, regulations, procedures and other information relevant to planning a flight under NVFR
- Interpret and follow operational instructions and prioritise work
- Complete documentation related to planning a flight under NVFR
- Operate electronic communication equipment to required protocol
- Work collaboratively with others when planning a flight under NVFR
- 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 planning a flight under NVFR in accordance with regulatory requirements and workplace procedures
- Implement contingency plans for unexpected events that may arise when planning a flight under NVFR
- Apply precautions and required action to minimise, control or eliminate hazards that may exist while planning a flight under NVFR
- 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 when planning a flight under NVFR

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
Aircraft requirements may include:	• instruments • communication • navigation system • 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
Operational 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)

RANGE STATEMENT

- approved operators 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
- Charts may include:
- Terminal Area Chart (TAC)
 - En Route Chart (ERC High, ERC Low)
 - Planning Chart (AUS PCA)
 - Visual Terminal Chart (VTC)
 - Designated Airspace Handbook
 - Visual Navigation Chart (VNC)
 - other aeronautical documentation and charts as approved by the relevant authority
- Airways facilities may include
- air traffic control
 - navigational aids
 - radio communications
 - meteorological services
 - fire and rescue services
- Navigation aids/systems may include:
- 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:
- simulated icing conditions
 - moderate turbulence
 - simulated hazardous weather
 - Autopilot/Flight Director
 - FMS/other NAV system
 - simulation of emergency and abnormal procedures
- 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

RANGE STATEMENT

Performance includes tolerances specified in either of:

- relevant state/territory environmental protection legislation
- relevant Australian Standards
- 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**

H - Route Planning and Navigation