



Australian Government

AVIW3026 Conduct night vision imaging system operations

Release: 1

AVIW3026 Conduct night vision imaging system operations

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 night vision imaging system (NVIS) operations, in compliance with relevant regulatory requirements of the Civil Aviation Safety Authority (CASA) and national operating standards.

It includes preparing for, conducting and concluding night vision imaging system operations as an individual flight crew member.

This unit addresses aviation technical skill requirements (physical, mental and task-management abilities) related to equipment and system operations of flight crew/s, 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

W – Equipment and Systems Operations

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 Prepare for night vision imaging system operations	1.1 Pre-flight information is obtained and prepared to identify safe flight routes, weather and operating terrain 1.2 Aviation risk management processes are implemented to minimise risk to safety of flight, personnel and equipment 1.3 NVIS lighting limitations/considerations are reviewed 1.4 Crew briefing is delivered or received about NVIS operational objectives 1.5 NVIS equipment is obtained and pre-operational checks are completed in accordance with organisational policies and procedures 1.6 Aircraft NVIS sensors, aids and equipment serviceability preparatory and adjustments are completed, and defects are identified and reported in accordance with organisational policies and procedures
2 Conduct night vision imaging system operations	2.1 NVIS equipment and personal flight equipment are used to safely operate aircraft systems 2.2 Instrumentation and/or NVIS checks are completed at appropriate times to identify visual clues 2.3 Night vision human factors are monitored and corrective action is taken as required in accordance with organisational policies 2.4 Reconnaissance of operational area is completed to ensure aircraft safety in accordance with organisational policies 2.5 NVIS emergency and abnormal conditions are identified and reacted to in accordance with organisational procedures and practices 2.6 Situational awareness is maintained to ensure safety of flight, crew, personnel and equipment 2.7 Individual flight crew coordination and management principles are implemented to ensure operational intent, in accordance with organisational policies
3 Conclude night vision imaging	3.1 Post-flight analysis and debriefing is conducted in accordance with organisational policies

system operations

- 3.2 Post-flight documentation is completed and processed
- 3.3 After-use servicing is completed and identified equipment defects are reported in accordance with organisational policies

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.

- | | |
|---|--|
| Aircraft must include one or more of the following: | <ul style="list-style-type: none"> • fixed or rotary wing aircraft compatible with and authorised to conduct NVIS operations • single or multiple engine |
| Pre-flight information must include: | <ul style="list-style-type: none"> • authorised aviation maps, charts and flight supplements • meteorological information • NVIS risk assessments and/or management plans • terrain data |
| NVIS sensors, aids and equipment must include one or more of the following: | <ul style="list-style-type: none"> • active infrared (IR) • enhanced vision systems • forward looking infra red radars • head up displays • laser range gating • night vision devices • night vision goggles • thermal imaging systems |
| NVIS sensors, aids and equipment serviceability checks must include one or more of the following: | <ul style="list-style-type: none"> • aircraft internal/external night aided lighting checks • aural and visual warning system checks • eyepiece or objective lens cannot be focused • eye-span and eye relief cannot be achieved • image obscurations • inability to focus • intermittent operation • low battery or power indications • night aided sensors, aids and devices <p>NVIS sensors fail to initialise/self-test</p> |

- NVIS personal flight equipment must include one or more of the following:
- NVIS equipment mounting systems unserviceable
 - non operation
 - poor or degraded image quality
 - eye protection
 - flares, strobes, beacons and IR markers
 - handheld torches
 - IR compatible lighting systems
 - lip and finger lights
 - personal life-support equipment
- Emergency and abnormal conditions must include one or more of the following:
- aircraft abnormal or emergency situations
 - breakdown in crew coordination and communications
 - degraded or loss of situational awareness
 - inadvertent instrument meteorological conditions (IMC)
 - night aided aircraft and personal equipment failures

Unit Mapping Information

This unit replaces and is equivalent to AVIW3026A Conduct night aided vision aviation operations.

Links

Companion Volume implementation guides are found in VETNet -

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