

Title	Demonstrate knowledge of Night Vision Imaging Systems (helicopters)		
Level	5	Credits	?

Comment [SH1]: Is the level correct?

Comment [SH2]: How many credits? How long does it take someone to become competent to carry out this task?

Purpose	People credited with this unit standard are able, for NVIS ground training, to demonstrate knowledge of: the aero medical aspects relevant to NVIS, Night Vision Goggles (NVGs), night terrain interpretation and environmental factors for NVIS flight, NVIS flight planning, operator specific training, and aircraft ground training.
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Classification	Aviation > Aircraft Operation
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Available grade	Achieved
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Entry information	
Critical health and safety prerequisites	Industry requirements are that the candidate must meet the eligibility requirements of the Civil Aviation Act 1990.

Explanatory notes

- 1 This unit standard is aligned with the relevant parts of the prescribed syllabi of the CAA for NVIS Ground Training in accordance with AC91-13. Credit will be awarded upon meeting the requirements of the CAA-approved assessment or examination.
- 2 Definitions, abbreviations, and acronyms used in this unit standard are to be found in:
 - a Civil Aviation Rules Part 1 published by the Civil Aviation Authority of New Zealand, PO Box 31441, Lower Hutt 5040, or on the CAA website at <http://www.caa.govt.nz>; and
 - b *Aeronautical Information Publication (AIP)* published by Aeronautical Information Management, PO Box 294, Wellington 6140.
- 3 All references to the CAA refer specifically to the Civil Aviation Authority of New Zealand.
- 4 Industry standards and recommended practices are those set in place by the CAA.
- 5 Industry texts may include but are not limited to – aircraft flight manuals, CAA Rules, CAA Advisory Circulars, Radio Technical Commission for Aeronautics (RTCA) documents, Federal Aviation Authority (FAA) documents, operator exposition.
- 6 For the purpose of this unit standard, *knowledge* refers to knowledge, understanding, and application of the subject matter.

Outcomes and evidence requirements

Outcome 1

Demonstrate knowledge of the aero medical aspects relevant to NVIS in accordance with AC91-13.

Evidence requirements

- 1.1 Anatomy and physiology of the eye are explained in accordance with industry texts and standards.
- 1.2 Common visual limitations/deficiencies are identified and described in accordance with industry texts and standards.
- 1.3 Types of vision are described in accordance with industry texts and standards.
- 1.4 Night viewing techniques are identified and explained in accordance with industry texts and standards.

Range unaided, aided.
- 1.5 Methods used to protect night vision are described in accordance with industry texts and standards.
- 1.6 Cues utilised to estimate distance and depth perception are identified and explained.

Range binocular cues, monocular cues.
- 1.7 Visual illusions are identified and explained in accordance with industry texts and standards.

Outcome 2

Demonstrate knowledge of Night Vision Goggles (NVGs) in accordance with AC91-13.

Evidence requirements

- 2.1 NVG description, model detail, capabilities and limitations are described in accordance with industry texts and standards.
- 2.2 NVG associated and additional equipment is identified and described in accordance with industry texts and standards.
- 2.3 Monocular components and operational sequence are identified and explained in accordance with industry texts and standards.
- 2.4 NVG functions and pre-flight inspections are identified, explained, and demonstrated in accordance with industry texts and standards.

2.5 NVG visual deficiencies are identified and described in accordance with industry texts and standards.

Range unacceptable defects, acceptable faults.

2.6 General care and cleaning is explained in accordance with industry texts and standards.

Outcome 3

Demonstrate knowledge of night terrain interpretation and environmental factors for NVIS flight in accordance with AC91-13.

Evidence requirements

3.1 Light sources are explained in accordance with industry texts and standards.

3.2 Meteorological conditions are identified and explained in accordance with industry texts and standards.

3.3 Cues for visual recognition are identified and explained in accordance with industry texts and standards.

3.4 Factors affecting NVIS interpretation are identified and explained in accordance with industry texts and standards.

3.5 Night navigation cues are identified and described in accordance with industry texts and standards.

3.6 Special considerations are identified and explained in accordance with industry texts and standards.

Range may include but is not limited to – flight over low contrast environment, whiteout, brownout.

Outcome 4

Demonstrate knowledge of NVIS flight planning in accordance with AC91-13.

Evidence requirements

4.1 NVIS flight planning is explained in accordance with industry texts and standards.

Range may include but is not limited to – ambient light, meteorology, protection of night vision, before departure checks, route planning, operational risk management, scene operations, contingency planning.

Outcome 5

Demonstrate knowledge of operator specific training in accordance with AC91-13.

Evidence requirements

- 5.1 Operator specific training is described in accordance with industry texts and standards.
- Range may include but is not limited to – Civil Aviation Rule requirements, exposition requirements, aircraft, NVIS serviceability requirements.

Outcome 6

Demonstrate knowledge of aircraft ground training in accordance with AC91-13.

Evidence requirements

- 6.1 Lighting systems are identified in accordance with industry texts and standards.
- Range internal, external
- 6.2 Caution warning systems are identified in accordance with industry texts and standards.
- 6.3 Cockpit familiarisation is demonstrated in accordance with industry texts and standards.
- Range may include but is not limited to – conduct (ground) practice in aircraft at night or in a dark environment; assemble NVIS equipment, use aircraft internal and external lighting systems, operate with NVGs.

Planned review date	31 December 2019
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1		N/A

Accreditation and Moderation Action Plan (AMAP) reference	0169
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This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Consent requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the ServiceIQ qualifications@serviceiq.org.nz if you wish to suggest changes to the content of this unit standard.