



# SUMMARY OF PROPOSED CHANGE



## Proposed relocation of NVIS legislation into Parts 91, 133 and 138 Manuals of Standards

Civil Aviation Order 82.6 (Night vision imaging system — helicopters) 2021

<b>Date</b>	October 2021
<b>Project number</b>	OS 13/19
<b>File ref</b>	D21/348323

## Introduction

Australia's civil aviation legislation framework has contained rules governing the use of night vision imaging systems (NVIS) since 2007. The primary source of these rules has been Civil Aviation Order (CAO) 82.6, which effectively applies to persons using NVIS for commercial aerial work activities and limited the kinds of activities in which the use of NVIS was permitted. CASA Instrument Number 288/07 prohibited the use of NVIS in private operations and CASR Part 61 requires pilots using NVIS to obtain a rating and certain endorsements. The construction of CASR Part 61 also effectively prohibits the use of NVIS by pilots in Australian aircraft other than helicopters. NVIS guidance material has been contained in Civil Aviation Advisory Publication (CAAP) 174-01.

CASA has been progressively transitioning the Civil Aviation Regulations 1988 (CARs) and Civil Aviation Orders (CAO's) into the Civil Aviation Safety Regulations 1998 (CASR) and associated Manual of Standards (MOS). Relevant to NVIS legislation, Parts 91, 133 and 138 of CASR were made into law in December 2018 containing regulations governing the use of NVIS, and subordinate MOS for each of these Parts was made into law in late 2020. These new CASR Parts and their MOS's are due to commence on 2 December 2021.

As a temporary measure until the CAO 82.6 legal requirements could be properly reviewed and placed into the appropriate elements of the Part 91, 133 and 138 MOS, these 3 MOS's required continued compliance with the CAO after 2 December 2021.

The legal interrelationship between Parts 91, 133 and 138 of CASR results in a significant amount of proposed duplicated content across the 3 MOS's. At this time, without fundamental changes to the regulations that empower each NVIS chapter of the respective MOS, this aspect of the proposed NVIS rules cannot be changed. This duplication will require the aviation industry to have a solid understanding of when the rules contained in a particular MOS apply to a particular kind of flight that where NVIS is used. These interrelationships are explained in the Key Changes section of this SPC. Pending the conclusion of this consultation and the feedback received, CASA will add this same explanation to the specific NVIS regulation entry in each of the Part 91, 133 and 138 Acceptable Means of Compliance and Guidance Material (AMC/GM) documents. These AMC and GM documents are already available, without this additional explanation, on CASA's website at [Acceptable Means of Compliance and Guidance Material | Civil Aviation Safety Authority \(casa.gov.au\)](#).

Prior to 2 December 2021, CASA will publish *Multi-Part AC 91-13, 133-09 and 138-06* that will replace CAAP 174-01 as the main NVIS guidance material document.

Following multiple CAO 82.6 amendments throughout 2020 to address longstanding requests from the aviation industry, CASA has engaged with the NVIS industry in 2021 via a dedicated Aviation Safety Advisory Panel (ASAP) NVIS Technical Working Group (TWG). The membership of this TWG is available on CASA's webpage at [Technical Working Groups | Civil Aviation Safety Authority \(casa.gov.au\)](#).

The purpose of this consultation is to provide a wider opportunity for industry comment on the proposed new MOS rules, in accordance with Subpart 11.J of CASR.

## Reference material

### Acronyms

The acronyms and abbreviations used in this SPC are listed in the table below.

Acronym	Description
AC	Advisory Circular
CAAP	Civil Aviation Advisory Publication
CAO	Civil Aviation Order
CAR	<i>Civil Aviation Regulations 1988</i>
CASA	Civil Aviation Safety Authority
CASR	<i>Civil Aviation Safety Regulations 1998</i>
FSB	Flight Standards Branch
MOS	Manual of Standards
TWG	Technical Working Group

### Definitions

Terms that have specific meaning for this consultation are defined in the table below.

Term	Definition
NVIS flight	means a flight conducted using a night vision imaging system.  <b>Note:</b> This definition will be located in the CASR Dictionary from 2 December 2021. It can currently be found in this instrument - <a href="#">Civil Aviation Safety Amendment (Operations Definitions) Regulations 2019 (legislation.gov.au)</a> .
NVIS operation	<u>Proposed for the Part 91 MOS:</u>  means an NVIS flight that is any of the following operations using NVIS:  <ol style="list-style-type: none"><li>a. authorised Part 141 flight training that is for a person to qualify for an NVIS rating or endorsement;</li><li>b. training and checking for a Part 141 operator in relation to its personnel who carry out the activities mentioned in paragraph (a);</li><li>c. authorised Part 142 activity that is:<ol style="list-style-type: none"><li>i authorised Part 142 flight training that is for a person to qualify for an NVIS rating or endorsement;</li><li>ii contracted recurrent training of personnel holding an NVIS rating or endorsement;</li><li>iii contracted checking of personnel holding an NVIS rating or endorsement;</li></ol></li><li>d. training and checking for a Part 142 operator in relation to its personnel who carry out the activities mentioned in paragraph (c);</li><li>e. a flight test required under Part 61 of CASR;</li><li>f. an NVIS proficiency check under Part 61 of CASR;</li><li>g. a flight, conducted by a Part 141 operator or a Part 142 operator, for</li></ol>

Term	Definition
	<p>the purpose of ensuring the proficiency of an NVIS pilot;</p> <p>h. training or checking for a Part 133 operator in relation to its crew members who conduct NVIS flights during the operator's medical transport operations;</p> <p>i. a maintenance flight of an aircraft for the purpose of ensuring the serviceability of the aircraft, or the NVIS, for NVIS operations mentioned in any other paragraph of this definition;</p> <p>j. a test flight of an aircraft for the purpose of certifying the aircraft, or the NVIS, for NVIS operations mentioned in any other paragraph of this definition.</p> <p><b>Note:</b> Unless otherwise expressly permitted (for example, under this Chapter, or under the Part 133 or Part 138 MOSs) NVIS must not be used in any other operations for safe air navigation by means of visual surface reference external to the aircraft conducting the operation.</p> <p><b>Note:</b> This Chapter does not apply to the use of NVIS by any crew member who is not directly involved in air navigation or terrain avoidance functions, and who uses NVIS solely for observation or surveillance.</p> <p><u>Proposed for the Part 133 MOS:</u></p> <p>means an NVIS flight that is a medical transport operation.</p> <p><u>Proposed for the Part 138 MOS:</u></p> <p>means an NVIS flight that is an aerial work operation conducted by an aerial work operator.</p> <p><b>Note:</b> An aerial work operator is the holder of an aerial work certificate.</p>
significant change	<p>For Part 119: see regulation 119.020.</p> <p>For Part 138: see regulation 138.012.</p>
used, using or uses, in relation to the use of NVIS	<p>means used as the primary means of terrain avoidance for safe air navigation by means of visual surface reference external to the rotorcraft conducting the operation.</p> <p><b>Note:</b> This definition, due to the legal construction of the regulations, CASR Dictionary and MOS's, does not apply to the word "uses" which is in the definition of NVIS flight.</p>

## Regulations

Regulations are available on the Federal Register of Legislation website <https://www.legislation.gov.au/>

Document	Title
CAO 82.6	Night Vision Imaging Systems - Helicopters
Part 91 of CASR	General Operating and Flight Rules
Part 91 MOS	Part 91 (General Operating and Flight Rules) Manual of Standards 2020
Part 133 of CASR	Australian Air Transport Operations - Rotorcraft
Part 133 MOS	Part 133 (Australian Air Transport Operations—Rotorcraft) Manual of Standards 2020

---

<b>Document</b>	<b>Title</b>
Part 138 of CASR	Aerial Work Operations
Part 138 MOS	Part 138 (Aerial Work Operations) Manual of Standards 2020

---

## Advisory material

CASA's advisory circulars are available at <http://www.casa.gov.au/AC>

CASA's Civil Aviation Advisory Publications are available at <http://www.casa.gov.au/CAAP>

---

<b>Document</b>	<b>Title</b>
CAAP 174-01	Night Vision Imaging Systems - Helicopters

---

## Key proposal elements

This section outlines elements of background information fundamental to understanding the proposed multi-MOS legislative structure and the key changes, including terminology changes, from the existing NVIS legislation into the proposed multi-MOS legislative structure.

### Overview of the intent of the proposed NVIS rules

The proposed NVIS rules in this consultation only contain very limited policy changes since the CAO was amended multiple times in 2020.

The policy intent of the proposed NVIS rules is to:

- Carry across the existing rules of CAO 82.6 in a simplified and condensed manner.
- Ensure the NVIS rules do not apply to a person wearing NVIS on a flight who is not a flight crew member and is **not involved** in air navigation or terrain avoidance functions.
- Implement the full suite of safety controls appropriate to enable the use of NVIS for situational awareness purposes in private operations, aerial work operations conducted by persons who do not hold an aerial work certificate and Part 133 passenger and cargo transport operations (previously consulted).
- Move the NVIS helicopter firebombing requirements of TMI 01/2017 into the main Part 138 ruleset.
- Create a requirement for an aerial work certificate holder to gain an approval from CASA to conduct NVIS aeroplane firebombing, thereby removing the necessity to issue exemptions:
  - CASA will continue to publish TMI 05/2019 as guidance to industry and CASA staff regarding expected standards to obtain this approval.
  - CASA does not anticipate including permanent aeroplane NVIS firebombing standards into the Part 138 MOS until further operational experience is obtained during multiple fire seasons.

### Additional proposal not resident in the proposed MOS's

This consultation is also proposing that if an operator had not previously held an approval under the old CAO to conduct an NVIS flight, then beginning to use NVIS would require CASA's approval. In the short term, this is proposed to be implemented via a specific direction issued to Part 119, 138, 141 and 142 operators. At the next available Part 119, 138, 141 and 142 regulation change opportunity, this change would be included as a mandatory significant change in paragraphs 119.020(a), 138.012(a), 141.025(a) and 142.030(a) of CASR.

An operator would only need further approval to start using NVIS during additional kinds of activities not mentioned in the initial application if, as a result of an operator's risk assessment of these new activities, the overall level of aviation safety would decrease or be likely to decrease (see the wording of CASR paragraphs 119.020(b), 138.012(c), 141.025(c) and 142.030(c)).

## What happens to existing NVIS operator approvals on 2 December 2021?

Existing NVIS operators do not need to take any actions specifically relating to their existing NVIS approvals. Where an element of their existing approval is equivalent to an approval proposed to be required under the new MOS rules, the existing approval will be deemed by CASA to be the future approval without any action needing to be taken by the operator. Two examples of this principle are:

- Where CASA accepted amendments to the operator's operations manual in relation to a single NVIS pilot being the only NVIS crew member when operating into an HLS-NVIS basic under CAO 82.6 Appendix 3 paragraph 8.3 (b), that acceptance will be deemed to be the approval required under paragraph 12.06(c) of the proposed Part 138 MOS.
- Where CASA approved, under CAO 82.6 Appendix 3 clause 10.2, minimum in-flight cloud requirements lower than those prescribed under item 1 or item 2 of Table 10.1, that approval will be deemed to be the approval required under paragraph 12.11(3)(c) of the proposed Part 138 MOS.

## Information regarding CAR 217 training and checking requirement in the CAO

CAR 217 is being repealed on 2 December 2021 and will be replaced by dedicated training and checking requirements in the Part 119 and 138 regulations; and for Part 138 additional operations are specified in section 4.02 of the Part 138 MOS. Parts 141 and 142 already contain requirements relating to the competency of personnel used in those operations.

For existing operators that will be transitioning into conducting NVIS operations during Part 133 medical transport operations, the effect of the training and checking deferral contained in CASA's flight operations regulations deferral policy is that the deferral will not apply to these operators in relation to their NVIS operations. This is because the operator was required under CAR 217 to have the training and checking organisation (via the ability for CASA to specify that certain operators had to provide a training and checking organisation).

For existing operators that will be transitioning into conducting NVIS operations during aerial work operations, the effect of the training and checking deferral contained in CASA's flight operations regulations deferral policy is that the deferral will not apply to these operators in relation to their NVIS operations. This is because the operator was required under CAR 217 to have the training and checking organisation (via the ability for CASA to specify that certain operators had to provide a training and checking organisation). However, in order to ensure proper continuing application of this requirement, it is necessary to add an additional requirement into section 4.02 of the Part 138 MOS to require aerial work certificate holders using NVIS to meet the Part 138 training and checking system requirements.

For Part 141 certificate holders, there are general provisions in Part 141 that require the operator to ensure that its personnel are suitably experienced and qualified (as just one example – see subparagraph 141.120(1)(a)(i) of CASR). There are also specific requirements relating to internal training and checking under Subpart 142.J of CASR.

For Part 142 AOC holders, there are general provisions in Part 142 that require the operator to ensure that its personnel are suitably experienced and qualified (as one example – see subparagraph 142.180(1)(a)(i) of CASR). There are also specific requirements relating to internal training and checking under Subpart 142.J of CASR.

## Overview of the proposed NVIS MOS content

The following list summarises the proposed NVIS MOS content.

- Part 91 MOS:
  - Section 1.07 is proposed to include an added definition of *NVIS operation* to enable the legal usage of this term in all Part 91 MOS chapters.
  - Chapter 2 is proposed to include some added VMC specifically for NVIS operations
- Note:** Later content in this SPC provides meaning for this term.
  - Chapter 3 is proposed to contain the main body of NVIS operational rules for all operations other than Part 133 operations or aerial work operations (when conducted by an aerial work certificate holder).
  - Chapter 26 is proposed to contain the equipment related NVIS rules that apply to NVIS usage in all operations except when conducted as part of a Part 133 operation.
- Part 133 MOS:
  - Section 1.04 is proposed to include an added definition of *NVIS operation* to enable the legal usage of this term in all Part 133 MOS chapters.
  - Section 5.10 is proposed to replace the current cross-reference to CAO 82.6 with wording appropriate to the new Part 133 MOS NVIS chapter.
  - Chapter 8 is proposed to contain the main body of NVIS operational rules for all operations other than Part 133 operations or aerial work operations (when conducted by an aerial work certificate holder).
  - Section 10.32 is proposed to replace 2 instances of existing MOS wording related to NVIS with wording appropriate to the new Part 133 MOS NVIS chapter.
  - Chapter 11 is proposed to contain the equipment related NVIS rules that apply to NVIS usage in Part 133 operations.
- Part 138 MOS:
  - Section 1.04 is proposed to include the addition of multiple definitions necessary to have a common meaning across all Part 138 MOS chapters and remove some existing definitions that would no longer be necessary due to the MOS amendments proposed in this consultation.
  - Section 4.02 is proposed to include the addition of a requirement for an operator conducting an NVIS operation to have a training and checking system (note later SPC content on the meaning of NVIS operation and training and checking system).
  - Sections 9.02, 9.04, 9.14, 11.01 and 11.03 are proposed to replace current cross-reference to CAO 82.6 and other existing NVIS references with wording appropriate to the new Part 138 MOS NVIS chapter.
  - Chapter 12 is proposed to contain the main body of NVIS operational rules for the use of NVIS by aerial work certificate holders.



- Sections 15.08 and 15.11 are proposed to replace current cross-reference to CAO 82.6 and other existing NVIS references with wording appropriate to the new Part 138 MOS NVIS chapter.
- Sections 16.04, 16.05, 16.06 and 16.07 are proposed to insert requirements relating to NVIS helicopter firebombing associated with the existing TMI 01/2017 and insert a requirement to hold an approval to conduct NVIS firebombing using an aeroplane.
- Sections 16.08, 16.09 and 16.10 are proposed to insert requirements relating to NVIS incendiary dropping aligned with existing requirements in CAO 82.6.
- Sections 17.10, 17.11 and 17.12 are proposed to insert requirements relating to NVIS fire mapping aligned with existing requirements in CAO 82.6.
- Section 22.10 is proposed to insert equipment requirements for NVIS fire mapping and NVIS incendiary dropping originating from CAO 82.6, and equipment requirements for NVIS helicopter firebombing originating from TMI 01/2017.

## Underpinning terminology

A fundamental legal interpretation issue for the proposed NVIS content across the Part 91, 133 and 138 MOS's is the difference between the meaning of *NVIS flight* and *NVIS operation*.

### NVIS flight

The definition of *NVIS flight* will be contained in the CASR Dictionary from 2 December 2021. Until then, it can be found in CASA's Flight Operations Regulations consolidated dictionary which is available at [Flight operations regulations | Civil Aviation Safety Authority \(casa.gov.au\)](https://www.casa.gov.au/flight-operations-regulations).

It has the following meaning:

*NVIS flight* means a flight conducted using a night vision imaging system.

It should be noted that in this definition, unlike in the existing CAO, the word 'using' does not have any special meaning. Therefore, the term *NVIS flight* is effectively an all-encompassing term that includes every flight of an aircraft that uses NVIS. As outlined earlier in this document, there are exclusions at the beginning of each main NVIS chapter of each MOS that exclude the NVIS rules from applying to a person on an NVIS flight who is wearing an NVIS, but is not a flight crew member, provided the person is **NOT** involved in air navigation or terrain avoidance functions.

### NVIS operation

In CAO 82.6, an *NVIS operation* was a specific kind of activity – such as *Department of Defence support or aerial fire fighting*.

Under the proposed NVIS rules, *NVIS operation* has a different meaning in each of the 3 MOS's and the legal definitions can be found in the Definitions section of each MOS chapter containing the main NVIS operational rules.

In general terms, for each MOS the definition of *NVIS operation* identifies those operations in that specific CASR Part which are permitted to fly below the Part 91 minimum height rules using NVIS, and consequently have certain additional requirements. For each MOS, *NVIS operation* includes the following kinds of operations:

- Part 91 MOS:
  - *NVIS operation* means an NVIS flight that is any of the following operations using NVIS:
    - Note:** The phrase 'using NVIS' has specific meaning in this context – see the NVIS specific definitions contained in section 3.02 of the Part 91 MOS proposed content.
    - o authorised Part 141 flight training that is for a person to qualify for an NVIS rating or endorsement
    - o training and checking for a Part 141 operator in relation to its personnel who carry out the activities mentioned in paragraph (a)
    - o authorised Part 142 activity that is:
      - authorised Part 142 flight training that is for a person to qualify for an NVIS rating or endorsement
      - contracted recurrent training of personnel holding an NVIS rating or endorsement
      - contracted checking of personnel holding an NVIS rating or endorsement.
    - o training and checking for a Part 142 operator in relation to its personnel who carry out the activities mentioned in the previous bullet on authorised Part 142 activities
    - o a flight test required under Part 61 of CASR
    - o an NVIS proficiency check under Part 61 of CASR
    - o a flight, conducted by a Part 141 operator or a Part 142 operator, for the purpose of ensuring the proficiency of an NVIS pilot
    - o training or checking for a Part 133 operator in relation to its crew members who conduct NVIS flights during the operator's medical transport operations
    - o a maintenance flight of an aircraft for the purpose of ensuring the serviceability of the aircraft, or the NVIS, for NVIS operations mentioned in any other element of this definition
    - o a test flight of an aircraft for the purpose of certifying the aircraft, or the NVIS, for NVIS operations mentioned in any other element of this definition.
- Part 133 MOS:
  - *NVIS operation* means an NVIS flight that is a medical transport operation
- Part 138 MOS:
  - *NVIS operation* means an NVIS flight that is an aerial work operation conducted by an aerial work operator (i.e., an aerial work certificate holder).

## When does which MOS chapter apply?

### Part 91 MOS

The VMC rules in Chapter 2 of the Part 91 MOS apply to all flight operations across the CASR.

The NVIS equipment rules contained in Chapter 26 of the Part 91 MOS apply to all NVIS flights across the CASR except those conducted during a flight that is an actual Part 133 operation.

The NVIS operational rules in Chapter 3 of the Part 91 MOS apply to all NVIS flights across the CASR except those conducted during a flight that is an actual Part 133 operation, or a flight that is an aerial work operation conducted by an aerial work certificate holder.

## Part 133 MOS

The Part 133 MOS NVIS rules apply to the holder of an Australian air transport AOC (previously an RPT or charter AOC holder) when the holder is conducting a flight that is a Part 133 operation. These operations are the actual flights of the AOC holder that are air transport operations, which consist of passenger transport operations, cargo transport operations or medical transport operations.

Importantly, training flights or training sequences for air transport operations, where they are not conducted during an actual air transport operation, are not Part 133 operations themselves. These flights are Part 91 operations and are required to be conducted under the Part 91 rules, not the combination of the Part 91 and Part 133 rules. Note that forthcoming separate exemption instruments will permit Part 133 operators to comply with some Part 133 rules instead of their equivalent Part 91 rule (as a simple example, comply with the Part 133 equipment rules instead of the Part 91 equipment rules).

This is the reason for the Part 91 MOS definition of *NVIS operation* including the NVIS related training flights of a Part 133 operator.

## Part 138 MOS

Part 138 combines the aerial work rules for persons that under the pre-2 December 2021 rules were conducting what was colloquially known as 'private aerial work' and aerial work AOC holders. As a result, the Part 138 regulations specifically identify which Part 138 regulations only apply to a person conducting an aerial work operation that are not required to hold an aerial work certificate.

The Part 138 NVIS regulation – 138.350 – only applies to aerial work certificate holders. Therefore, the proposed Chapter 12 of the Part 138 MOS that contains the aerial work NVIS operational rules, only applies to aerial work certificate holders.

For persons conducting aerial work without an aerial work certificate, the Part 91 MOS NVIS rules apply.

The NVIS elements contained in Chapters 4, 9, 11, 15, 16, 17 and 22 of the Part 138 MOS apply according to their terms. In almost cases, they only apply to aerial work certificate holders because persons conducting aerial work without an aerial work certificate are not permitted to conduct the operations that require a more specialised use of NVIS.

Importantly, training flights for an aerial work operation for an aerial work certificate holder are defined to be part of aerial work operations (see regulation 138.010). Therefore, where a training flight is specifically training for an aerial work operation, but is not, for example, solely for Part 61 NVIS rating training, then the Part 138 MOS NVIS rules also apply to that training flight.

## Summary of proposed MOS sections and consistency with CAO 82.6

The following tables provide a comparison between the MOS operational and equipment Chapters and the existing CAO 82.6.

## Part 91 MOS

Comparison for Part 91 MOS sections		
Chapter	Heading	Description
2.07	VMC criteria	VMC variation for NVIS operations
3.03	General requirements for a NVIS flight	Use of term NVIS flight versus NVIS operation
3.04	HLS NVIS standard	Modified dimensions for clarity and ease of use
3.05	HLS NVIS basic	Consistent with CAO 82.6
3.06	NVIS formation flights	Consistent with CAO 82.6
3.07	Alternate lighting requirements	Consistent with CAO 82.6
3.08	Aircraft lighting	Consistent with CAO 82.6
3.09	Minimum height	Exemptive provision for flight below LSALT
3.10	Weather requirement – cloud	Consistent with CAO 82.6
26.76	Aircraft and lighting standards	Consistent with CAO 82.6
26.77	NVG performance and specifications	Consistent with CAO 82.6
26.78	Maintenance of NVIS	Consistent with CAO 82.6
26.79	Minimum aircraft equipment	Consistent with CAO 82.6

## Part 133 MOS

Comparison for Part 133 MOS sections		
Chapter	Heading	Description
8.02	Definitions	Changed – definition of NVIS operation
8.03	General requirements for a NVIS flight	Use of term NVIS flight (all Part 133 NVIS flights) versus NVIS operation (medical transport only)
8.04	HLS NVIS standard	Modified dimensions for clarity and ease of use
8.05	HLS NVIS basic	Consistent with CAO 82.6
8.06	NVIS formation flights	Consistent with CAO 82.6
8.07	Alternate lighting requirements	Consistent with CAO 82.6
8.08	Helicopter lighting	Consistent with CAO 82.6
8.09	Minimum height	Considers single NVIS pilot operations
8.10	Weather requirement – cloud	Consistent with CAO 82.6
11.61	General and lighting standards	Consistent with CAO 82.6
11.62	NVG performance and specifications	Consistent with CAO 82.6

Comparison for Part 133 MOS sections		
11.64	Minimum equipment for NVIS flights	Consistent with CAO 82.6

## Part 138 MOS

Comparison for Part 138 MOS sections		
Chapter	Heading	Description
12.03	Definitions	Defines a NVIS operations
12.04	General requirements for a NVIS flight	Consistent with CAO 82.6
12.05	HLS NVIS standard	Modified dimensions for clarity and ease of use
12.06	HLS NVIS basic	Consistent with CAO 82.6
12.07	Aircraft lighting	Consistent with CAO 82.6
12.08	Minimum heights	Considers single NVIS pilot operations
12.09	Weather requirement – cloud	Consistent with CAO 82.6
12.10	NVIS Formation flight	Consistent with CAO 82.6
12.11	Alternate lighting	Consistent with CAO 82.6
<i>NVIS firebombing</i>		
16.05	Crew composition, qualification and experience	Consistent with CASA TMI 01/2017
16.06	Use of a belly tank	Consistent with CAO 82.6
<i>NVIS incendiary dropping</i>		
16.10	Crew composition, qualification and experience	Consistent with CAO 82.6
<i>NVIS fire mapping</i>		
17.12	Crew composition, qualification and experience	Removes the requirement for an NVIS air crew member for fire mapping operations above 1000' AGL
<i>Minimum equipment for NVIS fire operations</i>		
22.10	Incendiary dropping equipment	Consistent with CAO 82.6
	Fire mapping equipment	Consistent with CAO 82.6
	Firebombing helicopter equipment	Consistent with CASA TMI 01/2017

## Provisions from CAO 82.6 not moved across into the proposed MOS's

The following table summarises the requirements, exemptions, directions and provisions that will not be transferred from CAO 82.6 into the MOSs. These will be deleted and will no longer apply.

CAO 82.6 provisions proposed to not be included in the MOS's		
Reference	Heading	Reasoning for removal
Part 2 - 4	Provision of a TCO or Part 142 operator	Requirement removed as training and checking either internal to Parts 141 and 142, or encompassed by requirements under Parts 119 and 138
Part 2 - 5	Direction operations manual	Requirement contained within CASR Part 61, 91, 133 and 138
Part 2 – 7A	Exemption carriage of passengers	Carriage of passengers on NVIS flights now fits within normal carriage of passengers for the relevant Parts
Appendix 1 - 1	Restricted use of NVIS	NVIS no longer restricted to certain types of operations
Appendix 1 - 2	Approval to use NVIS	Separate approval for use of NVIS no longer required. Existing NVIS operators maintain compliance with operations manual whilst new operators will be assessed through significant change process
Appendix 1 - 6	Aircrew member training	Relocated to NVIS Advisory Circular (AC)
Appendix 2	Direction Operations Manual	Relocated to NVIS AC as guidance material
Appendix 3 - 7	Carriage of persons	Carriage of passengers on NVIS flights now fits within normal carriage of passengers for the relevant Parts
Appendix 3 – 13	Chief Pilot or head of operations	Requirement relocated to NVIS AC
Appendix 3 – 14	Senior NVIS pilot	Requirement relocated to NVIS AC
Appendix 3 – 17	Operator's obligation	Requirement contained within Part 141/142, Part 138 training and checking and Part 119 Training and checking
Appendix 3 – 17	Aircrew members and Instructors	Requirement relocated to NVIS AC
Appendix 3 - 18	Proficiency check requirements – NVIS pilot	Separate Part 61 direction to be issued by CASA to maintain current CAO 82.6 additional recency requirements
Appendix 3	Aircrew member training and recency requirements	Relocated to NVIS AC

## Additional information

### Previous consultations

CASA held a NVIS TWG in March 2020 to focus on policy changes required prior to the transition of the NVIS legislation. This TWG resulted in a significant amendment and re-issue of CAO 82.6 in October 2020.

Following the amendment to CAO 82.6, CASA held 2 further NVIS TWG's in June and August 2021 to receive TWG feedback on the proposed NVIS MOS content. This feedback resulted in numerous changes and refinements.

### Impact on industry

The proposed NVIS rules contained in the 3 MOS's represent an easing of the restrictions placed on the use of NVIS since 2007 when it was first introduced into the civil aviation legislation framework. The use of NVIS will no longer be constrained to a specific set of permitted operations, with the permitted list of operations entirely deleted and NVIS now permitted to be used, subject to a minimum set of safety controls, as a situational awareness tool by qualified pilots in compatible aircraft.

No new requirements are intended to be placed on industry due to the move of the NVIS rules from CAO 82.6 into the 3 MOS's.

Existing NVIS operators will not need to apply, or re-apply, to transition into the new rules. It is recommended that operators review AC 1-03 for further information regarding the requirements relating to providing exposition / operations manual content to CASA prior to 2 December 2021.

### Safety risk analysis

CASA conducted multiple risk assessments associated with the CAO policy changes of 2020 which are being carried across into the 3 MOS's. The overall risk was assessed as reasonable and appropriate. The potential hazards associated with permitting the use of NVIS in private operations as a situational awareness tool is proposed to be controlled by still requiring pilots to hold the requisite Part 61 rating and endorsements, and to be flying an NVIS compatible aircraft, and to only use NVGs that meet the standards that previously applied in the CAO.

For now, there is not yet sufficient demand within Australia to develop and provide an NVIS licensing framework for aeroplanes in Part 61 of CASR. CASA will continue to evaluate industry changes and demand and will undertake appropriate legislation development regarding an aeroplane NVIS licensing framework when necessary.

### Regulation impact statement

In line with normal practice, CASA submitted a RIS for the Part 91, 133 and 138 regulations to the Office of Best Practice Regulation (OBPR) prior to the making of those regulations in 2018. The RIS can be found in the Explanatory Statement for each of these CASR Parts on the Federal Register of Legislation ([www.legislation.gov.au](http://www.legislation.gov.au)).

## **Closing date for comment**

CASA will consider all comments received as part of this consultation process and incorporate changes as appropriate. Comments on the proposed NVIS related amendments to the Part 91, 133 and 138 MOS's should be submitted through the online response form by close of business 29 October 2021.