



Australian Government

Civil Aviation Safety Authority

I, SHANE PATRICK CARMODY, Acting Director of Aviation Safety, on behalf of CASA, make this instrument under paragraph 28BA (1) (b) and subsection 98 (4A) of the *Civil Aviation Act 1988*, and subregulations 5 (1), 207 (2), 215 (3), and 217 (1) of the *Civil Aviation Regulations 1988*, and regulations 11.160 and 11.245 of the *Civil Aviation Safety Regulations 1998*.

[Signed S. Carmody]

Shane Carmody
Acting Director of Aviation Safety

22 December 2016

Civil Aviation Order 82.6 Amendment Instrument 2016 (No. 1)

1 Name of instrument

This instrument is the *Civil Aviation Order 82.6 Amendment Instrument 2016 (No. 1)*.

2 Commencement

This instrument commences on 23 December 2016.

3 Amendment of Civil Aviation Order 82.6

Schedule 1 amends *Civil Aviation Order 82.6 (Night vision imaging system — helicopters) 2007*.

Schedule 1 Amendments

[1] Subsection 1, Definitions

insert

conforming HLS means a HLS that:

- (a) conforms to the guidelines contained in CAAP 92-2(2) for a Secondary HLS, as if those guidelines applied for an NVIS operation; or
- (b) under the requirements of a risk assessment prepared by an NVIS operator for a particular operation, has a level of safety at least equivalent to that arising under subparagraph (a).

old NVG training provider means an NVIS operator who:

- (a) immediately before 1 September 2014 — was, in Australia, an “NVG training provider” within the meaning of that expression as defined in subsection 1 of this Order as in force immediately before 1 September 2014; and
- (b) is approved in writing by CASA, on or after 23 December 2016, for this definition.

[2] Subsection 1, definition of *aerial fire fighting, sub-subparagraph (b) (ii)*

substitute

- (ii) a helicopter equipped with a belly tank that is filled and refilled with water, fire retardant or similar substance taken from:
 - (A) if the helicopter is on the ground — a source on the ground at a conforming HLS; or
 - (B) if the helicopter is in the hover and using the helicopter's on-board pump — a portable tank at a conforming HLS.

[3] Subsection 1, definition of *HLS-NVIS standard*

substitute

HLS-NVIS standard means a HLS that:

- (a) subject to subparagraphs (b) and (c), is a conforming HLS; and
- (b) is unlit; and
- (c) is not required to have a wind direction indicator.

[4] Subsection 1, definition of *NVIS basic HLS*

substitute

NVIS basic HLS means a HLS that conforms to the guidelines contained in CAAP 92-2(2) for a Basic HLS, as if those guidelines applied to an NVIS operation.

[5] Subsection 1, definition of *special fire endorsement*

substitute

special fire endorsement means:

- (a) for an endorsement issued before 23 December 2016 — an endorsement in the log book of an NVIS pilot, specifying that the holder has satisfied the fire-related requirements of this Order as in force before 23 December 2016; and
- (b) for an endorsement issued on or after 23 December 2016 — a signed certificate of competency that:
 - (i) is issued to an NVIS pilot under subclause 16.7 of Appendix 3; and
 - (ii) certifies that the NVIS pilot has satisfied the requirements of this Order for the applicable special fire endorsement mentioned in subclause 16.7 in Appendix 3.

Note See also subclause 5.4 in Appendix 1.

[6] Subsection 1, definition of *standard HLS*

omit

[7] Subsection 4

substitute

4 NVIS operators — provision of a TCO or a Part 142 operator

- 4.1 Subject to paragraph 4.2, for subregulation 217 (1) of CAR 1988, CASA specifies that an NVIS operator must provide a TCO to ensure that each of the operator's NVIS pilots maintains his or her competency.

- 4.2 Paragraph 4.1 does not apply to an NVIS operator who uses 1 of the following to ensure that each of the NVIS operator's NVIS pilots maintains his or her competency:
- (a) a Part 142 operator;
 - (b) until not later than 31 August 2018 — an old NVG training provider.
- 4.3 For subregulation 217 (1) of CAR 1988, CASA specifies that an NVIS operator who uses an NVIS aircrew member in an NVIS operation must provide 1 of the following to ensure that each of the NVIS aircrew members maintains his or her competency:
- (a) a TCO;
 - (b) until not later than 31 August 2018 — an old NVG training provider.

[8] Appendix 3, subclause 16.1

substitute

16 NVIS pilot — special fire endorsement

- 16.1 To qualify for a special fire endorsement, an NVIS pilot must satisfy the requirements of this clause.
- 16.2 The NVIS pilot must have successfully completed a course of training in the use of NVIS:
- (a) in incendiary dropping; or
 - (b) in fire mapping; or
 - (c) in both incendiary dropping and fire mapping;
- that was conducted by:
- (d) an NVIS flight instructor, engaged by the TCO of an NVIS operator, who also holds a special fire endorsement; or
 - (e) until not later than 31 August 2018 — an old NVG training provider, through an NVIS flight instructor who also holds a special fire endorsement.
- 16.3 The course of training mentioned in subclause 16.2 must be designed to develop competency in the following matters:
- (a) for incendiary dropping operations:
 - (i) assessing the risks of incendiary dropping operations at night, including risks arising from the following:
 - (A) the effects of excessive light, created by a fire, on the performance of the NVIS;
 - (B) inadvertent entry into I.M.C. caused by, for example, smoke or cloud;
 - (C) turbulence;
 - (D) the environment of a fire, for example, the area of operations, the weather, the terrain and the smoke;
 - (E) fatigue;
 - (F) the aircraft's performance;
 - (G) potential aircraft emergencies;
 - (ii) the planning and procedures required to deal with the risks of the operation; and

- (iii) incendiary dropping techniques, including taking into account the nature of the operation and the environment; and
 - (iv) communicating and interacting effectively with observers and fire authorities who are in the air or on the ground; and
 - (v) communicating and interacting effectively with other aircraft that may be operating in the area of the fire; and
 - (vi) emergency procedures for incendiary dropping, including emergencies arising from any failure or malfunctioning of the incendiaries or the incendiary dropping device;
- (b) for NVIS fire-mapping operations:
- (i) assessing the risks of fire-mapping operations at night, including the following:
 - (A) the effects of excessive light, created by a fire, on the performance of the NVIS;
 - (B) inadvertent entry into I.M.C. caused by, for example, smoke or cloud;
 - (C) turbulence;
 - (D) the environment of a fire, for example, the area of operations, the weather, the terrain and the smoke; and
 - (E) fatigue;
 - (F) the aircraft's performance;
 - (G) potential aircraft emergencies; and
 - (ii) the planning and procedures required to deal with the risks of the operation; and
 - (iii) scanning and mapping techniques, including taking into account the nature of the operation and the environment; and
 - (iv) communicating and interacting effectively with observers and fire authorities who are in the air or on the ground; and
 - (v) communicating and interacting effectively with other aircraft that may be operating in the area of the fire.

16.4 The NVIS pilot must have accumulated the following hours of aeronautical experience:

- (a) 1 000 hours of flight time as the pilot of a helicopter;
- (b) 50 hours in the type or class of helicopter that is, or is representative of, the type or class of helicopter in which incendiary dropping or fire mapping is to be conducted;
- (c) for incendiary dropping operations only — 100 hours of flight time in helicopter fire operations;

Note Helicopter fire operations would include, for example, fire bombing by day, incendiary dropping by day, insertion or extraction of fire crews by day.

- (d) 50 hours in helicopter night flight (unaided) in V.M.C. conditions under NVFR or I.F.R.;
- (e) 10 hours in night flight (unaided) in V.M.C. conditions under NVFR or I.F.R., in the type or class of helicopter that is, or is representative of, the type or class of helicopter in which incendiary dropping and fire mapping is to be conducted;

- (f) either:
 - (i) 50 hours of post-NVIS qualification NVIS flight time; or
 - (ii) less than 50 hours of post-NVIS qualification NVIS flight time in a helicopter — provided that the special fire endorsement is limited to NVIS operations as pilot in command under supervision (*PICUS*), co-pilot or dual pilot only, until completion of 50 hours of the post-NVIS qualification NVIS flight time.
- 16.5 The NVIS pilot must be assessed as competent in the matters mentioned in subclause 16.3 following a flight test conducted by:
- (a) CASA; or
 - (b) either:
 - (i) an NVIS checking pilot of a TCO or a Part 142 operator, who is the holder of an NVIS flight examiner rating under Part 61 of CASR 1998, and who also holds a special fire endorsement; or
 - (ii) the holder of an approval under regulation 61.040 of CASR 1998 to conduct flight tests for the issue of an NVIS rating and endorsement under Part 61 of CASR 1998, who also holds a special fire endorsement; or
 - (iii) until not later than 31 August 2018 — an NVIS flight examiner of an old NVG training provider, who also holds a special fire endorsement.
- 16.6 An NVIS pilot:
- (a) who has been issued with a special fire endorsement under subclause 16.7; and
 - (b) who seeks a different special fire endorsement;
- is not required to be retrained or reassessed as competent for any particular matter in the course of training that is common to both of the special fire endorsements.
- 16.7 If an NVIS pilot satisfies the requirements of subclauses 16.1 to 16.6, then CASA, or the person mentioned in paragraph 16.5 (b), must give the NVIS pilot a signed certificate of competency showing which of the following special fire endorsements the NVIS pilot has qualified for:
- (a) special fire endorsement – incendiary dropping and fire mapping (with or without a limitation to *PICUS*, co-pilot or dual);
 - (b) special fire endorsement – incendiary dropping only (with or without a limitation to *PICUS*, co-pilot or dual);
 - (c) special fire endorsement – fire mapping only (with or without a limitation to *PICUS*, co-pilot or dual).
- Note* A form of certificate is available on the CASA website.
- 16.8 A limitation expressed in an NVIS pilot's special fire endorsement under subsection 16.7, is deemed to have been cancelled as soon as the NVIS pilot completes the 50 hours of post-NVIS qualification flying experience mentioned in subparagraph 16.4 (f) (ii).
- 16.9 Despite subclauses 16.1, 16.2, 16.3 and 16.5, an NVIS pilot qualifies to be issued with a special fire endorsement if he or she has:
- (a) prior training that CASA determines in writing is equivalent to the relevant course of training mentioned in subclause 16.3; and

- (b) either:
 - (i) flight testing that CASA determines in writing is equivalent to the flight test mentioned in subclause 16.5; or
 - (ii) such extensive experience in NVIS operations similar to those for which a special fire endorsement is required, as CASA determines in writing is equivalent to the flight test mentioned in subclause 16.5.

Note The hours of aeronautical experience mentioned in subclause 16.4 are required.

- 16.10 An NVIS operator must not permit an NVIS pilot to fly for the operator under a special fire endorsement unless the operator has:
 - (a) examined the NVIS pilot's log book endorsement; or
 - (b) obtained a copy of the pilot's signed certificate of competency.
- 16.11 For paragraph 16.10 (b), before he or she commences operations for an NVIS operator, an NVIS pilot is required to give the NVIS operator a certified copy of the signed certificate of competency, and the NVIS operator must retain the copy in safe custody for not less than 3 years after receiving it.

[9] Appendix 3, clause 17

substitute

17 Operator's obligation to maintain NVIS pilot competency and proficiency

- 17.1 For subsection 4 of this Order, the competency of an NVIS operator's NVIS pilots must be maintained by the operator through 1 of the following:
 - (a) an NVIS training pilot of a TCO or a Part 142 operator, who is an NVIS flight instructor;
 - (b) until not later than 31 August 2018 — an NVIS flight instructor of an old NVG training provider.
- 17.2 For subsection 4 of this Order, the proficiency of an NVIS operator's NVIS pilots must be maintained by the operator through a proficiency check by 1 of the following:
 - (a) an NVIS checking pilot of a TCO or a Part 142 operator, who is the holder of an NVIS flight examiner rating under Part 61 of CASR 1998;
 - (b) the holder of an approval under regulation 61.040 of CASR 1998 to conduct the proficiency check; or
 - (c) until not later than 31 August 2018 — an NVIS flight examiner of an old NVG training provider.

Note See also clause 23.

- 17.3 An NVIS training pilot may give NVIS flight instruction to a non-NVIS endorsed pilot only if he or she is an NVIS flight instructor of a Part 141 operator or a Part 142 operator.

[10] Appendix 3, paragraph 21.3 (a)

omit

modified reading

insert

modified by reading

[11] Appendix 3, paragraphs 21.4 (b), (c) and (d)

substitute

- (b) completion of an NVIS proficiency check for an NVIS pilot with a special fire endorsement, in accordance with the requirements of clause 23.2.

[12] Appendix 3, subclause 21.2 occurring after Table 21.1

omit

[13] Appendix 3, Table 21.1

omit

[14] Appendix 3, clause 23

substitute

23 NVIS pilot proficiency check, including special fire endorsement

23.1 An NVIS proficiency check for an NVIS pilot must be conducted in accordance with the requirements of clause 21 and Part 61 of CASR 1998 by:

- (a) an NVIS checking pilot of a TCO or a Part 142 operator, who is the holder of an NVIS flight examiner rating under Part 61 of CASR 1998; or
- (b) the holder of an approval under regulation 61.040 of CASR 1998 to conduct the proficiency check; or
- (c) until not later than 31 August 2018 — an NVIS flight examiner of an old NVG training provider.

Note See regulation 61.1015 of CASR 1998, section 13 of the Part 61 Manual of Standards (**MOS**) and Appendix 3 of Schedule 6 of the Part 61 MOS.

23.2 An NVIS proficiency check for an NVIS pilot with a special fire endorsement must:

- (a) be conducted in accordance with the requirements of clause 21 and Part 61 of CASR 1998 by a person mentioned in subclause 23.1 who also holds a special fire endorsement; and
 - (b) require the NVIS pilot to also demonstrate:
 - (i) for incendiary dropping operations — competency in each of the matters referred to in paragraph 16.2 (a); and
 - (ii) for fire-mapping operations — competency in each of the matters referred to in paragraph 16.2 (b); and
 - (iii) for both incendiary dropping operations and fire-mapping operations — competency in each of the matters mentioned in paragraphs 16.3 (a) and (b), provided that competency need only be demonstrated once for a matter that is common to both paragraphs 16.3 (a) and (b).
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