

CHAPTER 8 FLIGHT PREPARATION (ALTERNATE AERODROMES) REQUIREMENTS

Division 8.1 Purpose and definitions

8.01 Purpose

For subregulation 91.235 (1), this Chapter prescribes requirements relating to flight preparation and alternate aerodromes (the *flight preparation (alternate aerodrome) requirements*).

8.02 Definition of *relevant weather conditions*

- (1) Subject to subsection (2), in this Chapter:
relevant weather conditions means the following weather conditions:
 - (a) for cloud — more than SCT below the alternate minima;
Note For alternate minima see section 8.08.
 - (b) for visibility — either:
 - (i) less than the alternate minima; or
 - (ii) equal to or more than the alternate minima but with a forecast of at least a 30% probability of fog, mist, dust or any other phenomenon restricting visibility below the alternate minima;
 - (c) for wind — a headwind, crosswind or downwind component more than the maximum for the aircraft;
 - (d) a thunderstorm or associated severe turbulence, or a forecast of at least a 30% probability of such an event.
- (2) If flight planning for a flight is based on 1 of the following:
 - (a) a TAF3, where the ETA of the flight is within the first 3 hours of the TAF3 validity period (but not if that ETA falls outside the end time (if any) specified for the TAF3 service);
 - (b) an ICAO landing forecast;then the definition in subsection (1) may be read as if there were no mention of probabilities in subparagraph (1) (b) (ii) and paragraph (1) (d).

8.03 Definition of *relevant IAP*

- (1) In this Chapter:
relevant IAP for an aerodrome outside Australian territory is the IAP that the pilot in command of an aircraft determines has the second lowest minimum altitude of the IAPs that the aircraft is able to conduct at the aerodrome (*conductible IAPs*).
- (2) For subsection (1), in determining which conductible IAP has the second lowest minimum altitude, the pilot in command must comply with the following constraints:
 - (a) the conductible IAPs that may be considered in determining the IAP with the lowest, and hence the second lowest, minimum altitudes must not both require use of the same radio navigation aid;
Note *Radio navigation aid* is a defined term in the CASR Dictionary. An example of this mandatory constraint is an aerodrome that has the following IAPs to a specific runway (from lowest to highest minimum altitude): an ILS with CAT I and CAT II minima that both require the use of a non-associated DME; a VOR that uses the same DME as the ILS; a GNSS with LNAV minima; and an NDB. The CAT II minima cannot be used and, therefore, cannot be the lowest

minimum altitude and VOR could not be considered to have the second lowest minimum altitude as it shares a required radio navigation aid with the ILS (namely, the same DME).

- (b) CAT II and CAT III minimum altitudes must not be used in determining altitudes for the relevant IAP.

Division 8.2 Destination alternate aerodromes

8.04 Destination alternate aerodromes — weather

- (1) Subject to subsection (2), the pilot in command of an aircraft must nominate a destination alternate aerodrome if the ETA at the planned destination aerodrome is during the period that:
 - (a) begins 30 minutes before the forecast commencement of relevant weather conditions at the planned destination aerodrome; and
 - (b) ends 30 minutes after the forecast ending of relevant weather conditions.

Note For relevant weather conditions, see section 8.02.

- (2) If:
 - (a) flight planning is based on a TAF3; and
 - (b) the ETA at the planned destination aerodrome:
 - (i) is within the first 3 hours of the TAF3 validity; and
 - (ii) does not fall outside the end time (if any) specified for the TAF3 service;then the pilot in command of an aircraft must nominate a destination alternate aerodrome if the ETA is during the period that:
 - (c) begins at the forecast commencement of relevant weather conditions at the planned destination aerodrome; and
 - (d) ends at the forecast ending of the relevant weather conditions.
- (3) If the forecast for the planned destination aerodrome required by subparagraph 7.02 (1) (a) (ii) is not available then the pilot in command of an aircraft must nominate a destination alternate aerodrome.
- (4) Subsections (1) and (2) do not apply if the pilot in command is operating an aircraft under the VFR by day within 50 NM of the departure aerodrome.
- (5) Subsections (1) and (2) do not apply if:
 - (a) relevant weather conditions exist; and
 - (b) the pilot in command ensures that sufficient fuel is carried to permit the aircraft to hold at the planned destination aerodrome until the end of the period mentioned in subsection (1) or (2), as the case requires.
- (6) Subsections (1) and (2) do not apply if:
 - (a) relevant weather conditions are forecast to occur on an intermittent or temporary basis; and
 - (b) the pilot in command ensures that sufficient fuel is carried to permit the aircraft to hold for:
 - (i) 30 minutes — when the forecast is based on a change indicator of INTER; or
 - (ii) 60 minutes — when the forecast is based on a change indicator of TEMPO.
- (7) For subsection (6), if a forecast contains multiple change indicators of INTER or TEMPO, the fuel for holding that is required under paragraph (6) (b) must be that for the most limiting requirement.

- (8) For subsections (1) and (2), if a forecast includes the change indicator BECMG:
 - (a) where the weather conditions within the BECMG element of the forecast represent a deterioration in any of the weather elements within the preceding element of the forecast — the change indication is to be applied from the start of the forecast BECMG period; and
 - (b) where the weather conditions within the BECMG element of the forecast represent an improvement in all of the weather elements within the preceding elements of the forecast — the change indication is to be applied from the end of the forecast BECMG period.

8.05 Destination alternate aerodromes — navigation

- (1) The pilot in command of an aircraft must nominate a destination alternate aerodrome if a flight is an IFR flight by night to a planned destination aerodrome that is:
 - (a) not served by an IAP; or
 - (b) is served by 1 or more IAPs none of which the pilot in command is able to conduct.
- (2) For a VFR flight by night, the pilot in command must nominate a destination alternate aerodrome that is within 1 hour's flight time of the planned destination aerodrome:
 - (a) unless:
 - (i) the planned destination aerodrome is served by a ground-based radio navigation aid; and
 - (ii) the aircraft is fitted with the appropriate radio navigation system capable of using the aid; and
 - (iii) the pilot in command is competent in using the aid; or
 - (b) unless:
 - (i) the aircraft is fitted with an approved GNSS; and
 - (ii) the pilot in command is competent in using the GNSS.
- (3) If aircraft navigation is to be conducted using a GNSS receiver certified only to (E)TSO C-129, navigation to a destination alternate aerodrome must be planned using a navigation system other than GNSS.

8.06 Destination alternate aerodromes — aerodrome lighting

- (1) If a flight is planned to land at night at an aerodrome that only has portable runway lighting, the pilot in command of an aircraft must nominate a destination alternate aerodrome unless reliable arrangements have been made for a qualified and responsible person to:
 - (a) attend the aerodrome during the period beginning at least 30 minutes before the ETA, and ending on completion of the aircraft's landing and taxiing (the *landing period*); and
 - (b) display the portable lighting.
- (2) If a flight is planned to land at night at an aerodrome with electric runway lighting, but without standby power, the pilot in command must nominate a destination alternate aerodrome unless:
 - (a) portable runway lights are available; and
 - (b) reliable arrangements have been made for a qualified and responsible person to:
 - (i) attend the aerodrome during the landing period; and

- (ii) display the portable lighting in the event of a failure of the electric runway lighting.
- (3) If a flight is planned to land at night at an aerodrome with PAL, the pilot in command must nominate a destination alternate aerodrome unless reliable arrangements have been made for a qualified and responsible person to:
 - (a) attend the aerodrome during the landing period; and
 - (b) manually switch on the runway lighting in the event of a failure of the PAL.
- (4) The pilot in command of an aircraft fitted with a single VHF radiocommunication system may only nominate an aerodrome with PAL as a destination alternate aerodrome if:
 - (a) reliable arrangements have been made for a qualified and responsible person to be in attendance to manually switch on the aerodrome lighting; and
 - (b) the aircraft has:
 - (i) a HF radiocommunication system; and
 - (ii) 30 minutes of holding fuel.

Note There is no requirement for a responsible person to be in attendance on the ground. The requirement for holding fuel will allow ground staff to be alerted in the event of a failure of the aircraft's VHF radiocommunication system.

- (5) Subsections (1) to (4) do not apply if the pilot in command ensures that sufficient fuel is carried to permit the aircraft to hold until first-light plus 10 minutes.
- (6) A destination alternate aerodrome nominated in accordance with subsection (2) or (3) is not required to have standby power or portable runway lighting.
- (7) In this section:

qualified, for a responsible person, means a person who is instructed in, and is competent to display, the standard runway lighting with portable lights.

8.07 Destination alternate aerodromes — restrictions

The pilot in command of an aircraft may nominate an aerodrome as a destination alternate aerodrome only if the aerodrome is:

- (a) suitable as a planned destination aerodrome for the flight; and
- (b) not itself an aerodrome for which the aircraft would require a destination alternate aerodrome; and
- (c) not a helideck.

8.08 Alternate minima — Australian aerodromes

- (1) For Table 8.08 (1), for a type of aircraft mentioned in an item of column 1, conducting the type of operation mentioned in the same item of column 2, the alternate minima for an aerodrome in Australian territory are those mentioned in the same item of column 3 (for altitude) and column 4 (for visibility), subject to any conditions mentioned in the same item of column 5.

Table 8.08 (1) Alternate minima at Australian aerodromes

	Column 1	Column 2	Column 3	Column 4	Column 5
Item	Type of aircraft	Type of operation	Altitude	Visibility	Conditions
1	Aeroplane or rotorcraft	IFR to aerodrome with an IAP the pilot is able to conduct	The alternate minima published on the instrument approach chart	The alternate minima published on the instrument approach chart	
2	Aeroplane or rotorcraft	(a) Day IFR to an aerodrome not served by an IAP; or (b) Day IFR to an aerodrome served by 1 or more IAPs none of which the pilot is able to conduct	LSALT for the final route segment plus 500 ft	8 km	<i>Note</i> See subsection 8.05 (1) for night IFR requirements
3	Aeroplane	Day VFR and night VFR	1 500 ft	8 km	
4	Rotorcraft	Day VFR	1 000 ft	3 km	Only for aerodromes in Class G airspace
		Day VFR and night VFR	1 500 ft	8 km	Only for aerodromes in airspace other than Class G airspace
		Night VFR	1 500 ft	8 km	

- (2) Subject to subsection (3), special alternate minima are only available for operations by aircraft with the following:
- (a) at least 2 localiser and glideslope receiving systems;
 - (b) at least 2 VOR receiving systems;
 - (c) at least 1 of the following combinations of distance measuring systems:
 - (i) 2 DME systems;
 - (ii) 2 GNSS;
 - (iii) 1 DME system and 1 GNSS.
- (3) Special alternate minima must not be used in any of the following circumstances:
- (a) when an aerodrome control service is not provided;

- (b) when an authorised weather forecast or authorised weather report is not available for the aerodrome;
- (c) when ground equipment associated with the approach aid has been continuously unserviceable for more than 7 days and continues to be unserviceable.

Note In the circumstance mentioned in paragraph (c), the non-availability of special alternate minima will be published in NOTAM.

8.09 Alternate minima — at foreign aerodromes

- (1) Subject to subsection (2), the alternate minima for an aerodrome outside Australian territory (the *relevant aerodrome*) are whichever 1 of the following provides the highest minima:
 - (a) the official alternate minima published in the State in which the aerodrome is located (the *relevant State*);
 - (b) the circling minima for the aerodrome, plus:
 - (i) a cloud ceiling increment of 500 ft; and
 - (ii) a visibility increment of 2 km;
 - (c) the landing minima of the relevant IAP, plus the following:
 - (i) where the relevant State increments are published — those increments;
 - (ii) where relevant State increments are not published, or if the availability or reliability of the approach aid is doubtful:
 - (A) a cloud ceiling increment of 500 ft; and
 - (B) a visibility increment of 2 km;
 - (d) if the determination of the relevant IAP is based entirely on the minimum altitudes of precision approach procedures:
 - (i) a cloud ceiling of 400 ft; and
 - (ii) a visibility of 1 600 m;
 - (e) if the determination of the relevant IAP is not based entirely on the minimum altitudes of precision approach procedures:
 - (i) a cloud ceiling of 800 ft; and
 - (ii) visibility of 3 000 m.
- (2) If:
 - (a) the aerodrome has straight-in procedures to a runway that are not suitable for the operation; and
 - (b) circling is permitted;then the alternate minima must not be lower than that derived from paragraph (1) (b).