



Australian Government
Civil Aviation Safety Authority

I, JOHN FRANCIS McCORMICK, Director of Aviation Safety, on behalf of CASA, make this instrument under subregulation 235 (2) of the *Civil Aviation Regulations 1988*.

[Signed John F. McCormick]

John F. McCormick
Director of Aviation Safety

15 May 2014

Civil Aviation Order 20.7.1B Amendment Instrument 2014 (No. 1)

1 Name of instrument

This instrument is the *Civil Aviation Order 20.7.1B Amendment Instrument 2014 (No. 1)*.

2 Commencement

This instrument commences on the day after registration.

3 Amendment

Schedule 1 amends Civil Aviation Order 20.7.1B.

Schedule 1 Amendments

[1] Title

omit

all words after “**above**”

insert

5 700 kg, or 2 722 kg if driven by 2 or more jet engines — all operations

[2] Subparagraphs 2.1 (a) and (b)

substitute

- (a) all aeroplanes driven by 2 or more jet engines having a maximum take-off weight in excess of 2 722 kg; and
- (b) all aeroplanes driven by 2 or more turbine propeller engines having a maximum take-off weight in excess of 5 700 kg; and
- (c) all new types of aeroplanes first registered in Australia after 1 June 1963, driven by 2 or more piston engines and having a maximum take-off weight in excess of 5 700 kg.

Note Aeroplanes of maximum take-off weight exceeding 2 722 kg and not subject to Civil Aviation Order 20.7.1, 20.7.1B or 20.7.4 remain subject to subregulation 235 (2) of the *Civil Aviation Regulations 1988*.

[3] Subsection 3, Definitions

insert

actual landing distance means the landing distance required for the actual conditions, using the deceleration devices planned to be used for the landing.

Note Actual landing distance required is explained in *Safety Alert for Operators, SAFO 06012* published by the USA Federal Aviation Administration.

Arinc 424 RF path terminator means a segment of a flight path known as radius-to-fix, terminating as specified in *Aeronautical Radio Incorporated Specification 424-17*.

RF leg means a radius-to-fix leg encoded in the navigation database for an approved RNP operation.

[4] Paragraph 3.1, definition of RNP containment

omit

[5] Paragraph 3.1, after definition of take-off run available

insert

Note If any part of the take-off run available is lost due to the alignment of the aircraft at the start of the take-off run, account must be taken of the loss.

[6] Paragraph 4.1 (ba)

substitute

(ba) for aeroplanes with maximum take-off weight in excess of 5 700 kg, a weight that will permit compliance with the obstacle clearance requirements mentioned in paragraph 7.5 and subsection 12 for take-off from a dry runway (whether it is dry or not) and taking into account either wind conditions, ambient temperature and aerodrome elevation, or wind conditions and approved declared conditions;

[7] Subsection 11

substitute

11 Landing distance required

11.1 When determining the maximum weight for take-off of a jet-engined aeroplane of maximum take-off weight greater than 5 700 kg for the purpose of subparagraph 4.1 (d), the landing distance required is:

- (a) for an aeroplane engaged in regular public transport operations when the appropriate weather reports and forecasts, or a combination, indicate that the runways will be dry at the estimated time of arrival, or in charter operations — 1.67 times the distance required to bring the aeroplane to a stop on a dry runway; or
- (b) for an aeroplane engaged in regular public transport operations when the appropriate weather reports and forecasts, or a combination, indicate that the runways may be wet at the estimated time of arrival:
 - (i) 1.92 times the distance required to bring the aeroplane to a stop on a dry runway; or
 - (ii) the distance set out in the flight manual or operations manual for operations conducted on wet runways.

11.2 When determining the maximum weight for landing of a jet-engined aeroplane of maximum take-off weight greater than 5 700 kg for the purpose of

subparagraph 5.1 (a), the landing distance required is 1.67 times the distance required to bring the aeroplane to a stop on a dry runway or, if actual landing distance data is supplied by the aircraft's type certificate holder, 1.15 times the actual landing distance.

Note Subparagraph 4.1 (d) refers to determining the permissible landing weight before take-off and subparagraph 5.1 (a) refers to re-assessing the permissible landing weight after take-off.

- 11.3 For subparagraphs 4.1 (d) and 5.1 (a), when determining the maximum weight for take-off and landing, respectively, of a jet-engined aeroplane of maximum take-off weight not greater than 5 700 kg engaged in regular public transport operations, the landing distance required is 1.43 times the distance required to bring the aeroplane to a stop on a dry runway.
- 11.4 When determining the maximum weight for take-off of a propeller-driven aeroplane for the purpose of subparagraph 4.1 (d), the landing distance required in regular public transport operations and charter operations is:
- (a) when the appropriate weather reports and forecasts, or a combination, indicate that the runways will be dry at the estimated time of arrival — 1.43 times the distance required to bring the aeroplane to a stop on a dry runway; or
 - (b) when the appropriate weather reports and forecasts, or a combination, indicate that the runways may be wet at the estimated time of arrival:
 - (i) for a landing at a destination aerodrome — 1.67 times the distance required to bring the aeroplane to a stop on a dry runway; or
 - (ii) for a landing at an alternate aerodrome — 1.43 times the distance required to bring the aeroplane to a stop on a dry runway.
- 11.5 When determining the maximum weight for landing of a propeller-driven aeroplane for subparagraph 5.1 (a), the landing distance required in regular public transport operations and charter operations is 1.43 times the distance required to bring the aeroplane to a stop on a dry runway.
- 11.6 Subject to paragraph 11.8, the distance required to bring the aeroplane to a stop on a dry runway must be the horizontal distance necessary to land and come to a complete stop from a point 50 feet above the landing surface using information set out in the flight manual.
- 11.7 Subject to paragraph 11.8, for a landing on a contaminated runway, the landing distance required is:
- (a) the distance set out in the flight manual or the operations manual for operations conducted on contaminated runways; or
 - (b) the distance approved by CASA for operations conducted on runways covered by slush, snow or a depth of water; or
 - (c) if actual landing distance data is supplied by the holder of the aircraft's type certificate — 1.15 times the actual landing distance.
- 11.8 For subparagraph 4.1 (d) and paragraph 5.1, an aeroplane engaged in private operations or aerial work operations, or a jet-engined aeroplane of maximum take-off weight not greater than 5 700 kg engaged in charter operations, must be operated so that compliance with the landing requirements is demonstrated using data set out in the flight manual or the manufacturer's data manual.

Note The data contained in some manufacturers' data manuals is unfactored and makes no allowance for degraded aircraft performance.

11.9 Paragraphs 11.2, 11.3, 11.5, 11.7 and 11.8 do not apply in the case of an emergency.

[8] Paragraph 12.1

omit all words after

For the purpose of meeting this requirement,

insert

the planned departure procedure may include a change of heading but, in that event, the change of heading must not be initiated before a point where the net flight path clears all obstacles by at least 50 feet and, for the duration of the turn, the net flight path must clear by at least 50 feet vertically all obstacles in the take-off area. The planned angle of bank must not exceed 15°, except that in an approved RNP operation the planned angle of bank must not exceed 25° subject to the aeroplane's flight manual containing data that supports the planned angle of bank. The data must provide an increased take-off safety speed V_2 when planning an angle of bank greater than 15°. It must also contain data to allow construction of the net flight path when using an increased take-off safety speed V_2 and when planning to use an angle of bank greater than 15°.

[9] Subparagraph 12.1.1 (b)

omit all words after

take-off distance available.

insert

If the aircraft is equipped and approved to conduct RF legs and any turns, and the departure procedures are constructed using ARINC 424 RF path terminators, then the lateral expansion of the take-off area may be discontinued when the perimeter of the take-off area reaches:

- (i) RNP set equal to, or greater than, 0.5 — 900 metres either side of the defined flight path; or
- (ii) RNP set equal to, or less than, 0.2 — 370 metres either side of the defined flight path; or
- (iii) RNP set to more than 0.2 but less than 0.5 — a distance either side of the defined flight path derived by linear interpolation between 370 metres and 900 metres according to the RNP.

[10] Paragraph 12A.5

omit all words after

an approved RNP operation,

insert

the expansion of the take-off area may be discontinued when the perimeter of the take-off area reaches:

- (a) if RNP is set equal to or greater than 0.5 — 900 metres on either side of the defined flight path; or
- (b) if RNP set to or less than 0.2 — 370 metres on either side of the defined flight path; or

- (c) if RNP is set to more than 0.2 but less than 0.5 — a distance on either of the defined flight path, derived by linear interpolation, between 370 metres and 900 metres according to RNP.
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