



# Australian Government

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## Civil Aviation Safety Authority

I, JOHN FRANCIS McCORMICK, Director of Aviation Safety, on behalf of CASA, make this instrument under paragraph 9 (1) (c) of the *Civil Aviation Act 1988* and regulation 172.022 of the *Civil Aviation Safety Regulations 1998*.

**[Signed John F. McCormick]**

John F. McCormick  
Director of Aviation Safety

19 December 2013

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### Manual of Standards Part 172 Amendment Instrument 2013 (No. 1)

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#### **1 Name of instrument**

This instrument is the *Manual of Standards Part 172 Amendment Instrument 2013 (No. 1)*.

#### **2 Commencement**

This instrument commences on 1 January 2014.

#### **3 Amendment of the Manual of Standards Part 172**

Schedule 1 amends the Manual of Standards (MOS) – Part 172.

### **Schedule 1 Amendments**

#### **[1] Subsection 1.1.2.4**

*substitute*

- 1.1.2.4 The MOS comprises specifications (standards) prescribed by CASA, of uniform application, determined to be necessary for the safety of air navigation. In those parts of the MOS where it is necessary to establish the context of standards to assist in their comprehension, the sense of parent regulations has been reiterated. The MOS is a disallowable legislative instrument. This means that it is a legislative instrument that becomes effective following registration on the Federal Register of Legislative Instruments (FRLI). It must be tabled in both Houses of Parliament within 6 sitting days following registration and is subject to scrutiny and disallowance by Parliament.

#### **[2] Subsection 3.1.4.2**

*omit*

that;

*insert*

that:

**[3] Subsection 9.1.6.1**

*substitute*

9.1.6.1 Where appropriate voice recording facilities are available, instead of being recorded as entries in a Log Book, the information mentioned in subsection 9.1.6.1A must be voice recorded in sufficient detail to readily establish for any safety investigation:

- (a) whether and when the position or unit was active or inactive; and
- (b) the identity of each person responsible for any active position at any time.

9.1.6.1A The information that must be voice recorded is:

- (a) the identification of incoming staff taking over responsibility for a position; and
- (b) the information relayed by outgoing staff to incoming staff in accordance with handover and takeover procedures; and
- (c) for non-continuous units — details of opening and closing watch, including the identification of incoming staff taking over responsibility for the unit.

**[4] Subsection 10.2.1.1 (including Note)**

*substitute*

10.2.1.1 ADS-B may only be used for the provision of air traffic control service if the quality of the ADS-B data is demonstrably suitable for the particular purpose.

**[5] Subsection 10.2.5.1**

*substitute*

10.2.5.1 Aircraft must be identified by at least 1 of the following procedures:

- (a) application of 1 or more of the identification procedures specified in PANS-ATM;
- (b) correlating a particular position symbol to the position of an aircraft observed visually.

**[6] Subsection 10.2.5.2**

*omit*

**[7] Paragraphs 10.2.9.2 (c) and (d)**

*substitute*

- (c) in VMC by day only, when ATC assigns responsibility for arranging obstacle clearance specifically to the pilot.

**[8] Subsections 10.2.12 and 10.2.13**

*omit*

**[9] Subsection 10.4.2.1**

*substitute*

10.4.2.1 Independent parallel approaches may be conducted to parallel runways if:

- (a) the minimum distance between runway centrelines is 1 035 m; and
- (b) an ATS surveillance system and associated situation display system is in use which is demonstrably suitable for the particular independent parallel approach operation; and
- (c) for runways separated by less than 1 310 m, the ATS surveillance system required by paragraph (b) provides aircraft position prediction and deviation alert; and

- (d) a No-Transgression Zone (NTZ) at least 610 m wide:
  - (i) is established equidistant between the extended runway centrelines, beginning at the point where 1 000 ft vertical separation no longer exists between aircraft on adjacent extended runway centrelines, and ending at a point 0.5 NM beyond the farthest Departure End of Runway (DER); and
  - (ii) is depicted on the relevant situation display; and
- (e) the aircraft are making straight-in approaches; and
- (f) Instrument Landing System (ILS) approaches are being conducted to both runways; and
- (g) a minimum of 1 000 ft vertical or 3 NM surveillance separation is provided until aircraft are established on the ILS localiser course; and
- (h) when aircraft are established on the ILS localiser course — a minimum of 1 000 ft vertical separation or 2 NM surveillance separation is provided between aircraft on adjacent localiser until the higher aircraft reaches the ILS PRM glide path intercept point; and
- (i) a minimum of 3 NM surveillance separation is provided between aircraft on the same ILS localizer course unless increased longitudinal separation is required due to wake turbulence; and
- (j) the missed approach track for 1 approach diverges by at least 30 degrees from the missed approach track of the adjacent approach; and
- (k) when vectoring an aircraft to intercept the ILS localiser course — the final vector:
  - (i) enables the aircraft to intercept the ILS localizer course at an angle not greater than 30 degrees; and
  - (ii) provides at least 1 NM straight flight prior to ILS localiser course intercept; and
- (l) the aircraft are cleared to descend to the appropriate glide path intercept altitude soon enough to provide a period of level flight to dissipate excess speed; and
- (m) the pilot is advised, if required, of the altitude to be maintained until the ILS PRM glide path intercept point; and
- (n) the aircraft are established on the respective aerodrome control frequency and monitoring the relevant PRM frequency no later than 2 NM prior to the higher ILS PRM glide path intercept point.

**[10] Subsections 10.5.5.1 and 10.5.5.2**

*substitute*

- 10.5.5.1 Subject to subsection 10.5.5.3, the horizontal separation minimum based on ATS surveillance information is:
  - (a) 5 NM; or
  - (b) if a higher minimum applies under subsection 10.12.2.2 — that higher minimum.
- 10.5.5.2 Subject to subsection 10.5.5.3, the separation minimum in 10.5.5.1 may be reduced to not less than 3 NM if:
  - (a) a higher minimum under 10.12.2.2 does not apply; and
  - (b) the relevant aircraft are in communication with, and under the control of, a terminal control unit or associated control tower; and
  - (c) an ATS surveillance system and associated display system is in use which is demonstrably suitable for using 3 NM separation.

- 10.5.5.2A Subject to subsection 10.5.5.3, the separation minimum in 10.5.5.1 may be reduced to not less than 2.5 NM between succeeding aircraft which are established on the same final approach track within 10 NM of the runway end if:
- (a) a higher minimum under 10.12.2.2 does not apply; and
  - (b) the relevant aircraft are in communication with, and under the control of, a terminal control unit or associated control tower; and
  - (c) an ATS surveillance system and associated display system is in use which is demonstrably suitable for using 2.5 NM separation; and
  - (d) the average runway occupancy time of landing aircraft does not exceed 50 seconds; and

<p><b>Note:</b> The average may be established by means such as data collection and statistical analysis, or methods based on a theoretical model or both.</p>
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- (e) braking action is reported as good and runway occupancy times are not adversely affected by runway contaminants such as slush, snow or ice; and
- (f) the aerodrome controller is able to observe the runway-in-use and associated exit and entry taxiways:
  - (i) visually; or
  - (ii) by means of surface movement radar (SMR); or
  - (iii) by means of a surface movement guidance and control system (SMCGS); and
- (g) ATC monitors aircraft approach speeds and, where necessary, requires speed adjustments, to ensure that separation is not reduced below the minimum; and
- (h) aircraft operators and pilots have been told beforehand that the aircraft must exit the runway in an expeditious manner whenever 2.5 NM separation on final approach is applied; and
- (i) procedures concerning the application of 2.5 NM separation at an aerodrome are published in the AIP.

**[11] Subsection 10.6.4**

*omit*

EGAVI

*insert*

UPNOT

**[12] Subsection 10.7.11**

*omit*

Aircraft with RVSM approval, except military formation flights operating in airspace in which a Class A service is being provided

*insert*

Aircraft with RVSM approval, excluding military formation flights

**[13] Subsection 10.8.3.8, Table 10.8-3**

*add at the end*

Localiser Equivalence	± 1 NM	± 1 NM	The aircraft must be:
			(a) established on 1 of the following approaches to a runway:
			(i) Area Navigation — Global Navigation Satellite System (RNAV (GNSS));
			(ii) Required Navigation Performance Approach (RNP APCH);
			(iii) Required Navigation Performance Authorisation Required Approach (RNP AR APCH); and
			(b) within 25 NM of the runway threshold; and
			(c) at or inside the Initial Approach Fix (IAF) for the runway; and
			(d) aligned with the centreline of the runway.

**[14] Subsection 10.11.1.3**

*omit*

**[15] Subsection 10.12.1**

*substitute*

10.12.1.1 In this section, the following applies:

- (a) for lateral extent, when applying wake turbulence separation, directly behind means that an aircraft is operating within 760 m of the flight path of the aircraft in front of it.
- (b) intermediate part — ICAO PANS-ATM, of a runway, including of a parallel runway separated from the runway by less than 760 m, means a point more than 150 m after the take-off commencement point of the preceding aircraft using the runway or the parallel runway.

10.12.1.2 In addition to the categories of aircraft specified in PANS-ATM, the Airbus A380 is taken to constitute the SUPER wake turbulence category of aircraft.

**[16] Subsection 10.12.2.1**

*omit*

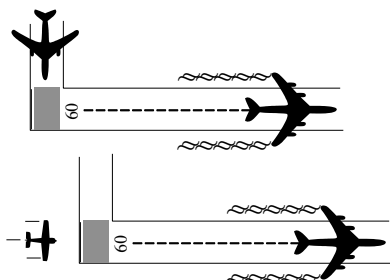
Full Length operations

*insert*

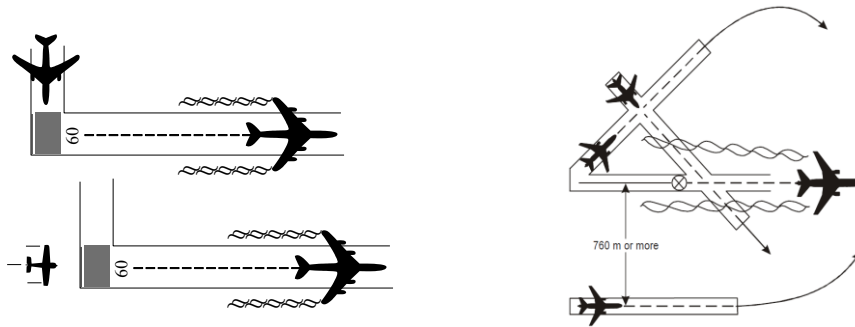
Full length or crossing runway operations, or crossing flight paths

**[17] Subsection 10.12.2.1**

*omit*



*insert*



**[18] Paragraph 10.12.3.1 (b)**

*omit*

not more

*insert*

less

**[19] Subsection 10.12.3.4**

*substitute*

For a LIGHT or MEDIUM aircraft, ATC must not waive the relevant wake turbulence separation minimum if the aircraft is taking-off after a HEAVY or SUPER aircraft has:

- (a) used the same runway in the same or reciprocal direction; and
- (b) taken-off or made a low or missed approach.

**[20] Subsection 10.13.2.3**

*substitute*

Except as specified in subsections 10.13.2.4 and 10.13.2.5, take-offs must not be permitted after an arriving aircraft has commenced final approach until:

- (a) it is sighted by the tower controller and reasonable assurance exists that a landing can be accomplished; or
- (b) separation standards can be applied between an arriving aircraft which misses its approach and an aircraft desiring take-off clearance.

**[21] Subsection 10.13.2.4**

*substitute*

When the take-off direction differs by at least 45 degrees from the reciprocal of a straight-in final approach, a departing aircraft may commence take-off before an arriving aircraft on final approach passes a point 5 NM from the landing threshold as determined by 1 of the following:

- (a) ATS surveillance system;
- (b) GNSS report;
- (c) DME report adjusted for the distance between the landing threshold in use and the DME site.

**[22] Subsection 10.13.2.6**

*omit*

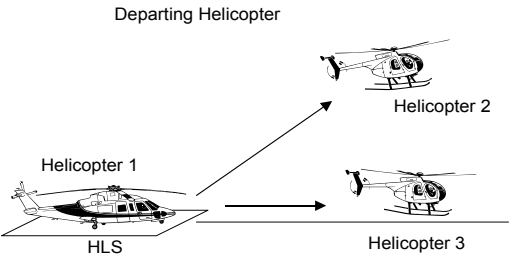
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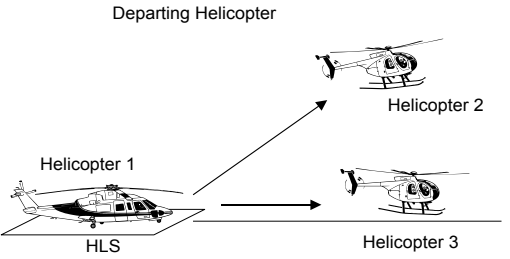
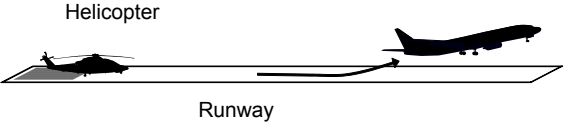
For subsections 10.13.2.3 and 10.13.2.4, when an ATS surveillance system suitable for 3 NM separation

[23] Subsection 10.13.8

omit

<b>Take-off Helicopter</b>	Departing Helicopter	Helicopter (1) may be cleared for take-off when a preceding departing helicopter (2) has departed the HLS, or a preceding arriving helicopter (3) has moved clear of the HLS.	 <p>The diagram illustrates a helicopter take-off sequence from a Helicopter Landing Site (HLS). Helicopter 1 is shown on the HLS. Helicopter 2 is shown as a 'Departing Helicopter' moving away from the HLS. Helicopter 3 is shown as an arriving helicopter moving towards the HLS. Arrows indicate the movement of each helicopter.</p>
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<b>Take-off behind a previous departing helicopter</b>	Helicopters departing from an HLS	Helicopter (1) may be cleared for take-off when a preceding departing helicopter (2) has departed the HLS, or a preceding arriving helicopter (3) has moved clear of the HLS.	 <p>The diagram illustrates a helicopter take-off sequence from a Helicopter Landing Site (HLS). Helicopter 1 is shown on the HLS. Helicopter 2 is shown as a 'Departing Helicopter' moving away from the HLS. Helicopter 3 is shown as an arriving helicopter moving towards the HLS. Arrows indicate the movement of each helicopter.</p>
<b>Helicopter taking-off behind a preceding departing aircraft</b>	Where the helicopter uses a runway for a take-off roll	A departing helicopter must not be permitted to commence take-off until: <ol style="list-style-type: none"><li>1. the preceding departing aircraft is airborne; and</li><li>2. ATC ensures visual separation is in place; and</li><li>3. if applicable, the appropriate wake turbulence separation standard has been achieved.</li></ol>	 <p>The diagram shows a helicopter and a preceding aircraft on a runway. The helicopter is positioned behind the aircraft, indicating it is waiting for the aircraft to clear the runway before taking off.</p>