Australian Government

Civil Aviation Safety Authority

I, JOHN FRANCIS McCORMICK, Director of Aviation Safety, on behalf of CASA, make this instrument under regulation 172.022 of the *Civil Aviation Safety Regulations 1998*.

**[Signed John F. McCormick]**
John F. McCormick
Director of Aviation Safety

25 May 2010

## Manual of Standards Part 172 Amendment (No. 1) 2010

### 1 Name of instrument

This instrument is the *Manual of Standards Part 172 Amendment (No. 1) 2010.*

### 2 Commencement

This instrument commences on 3 June 2010.

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

Schedule 1 amends Manual of Standards Part 172.

## Schedule 1 Amendments

### [1] Subsection 1.1.7.1, the table of Abbreviation and Meaning

*after*

| | |
|---|---|
| ADS-C | Automatic dependent surveillance — contract |

*insert*

| | |
|---|---|
| ATC | Air traffic control |
| ATS | Air traffic service |

### [2] Subsection 1.1.7.1, the table of Abbreviation and Meaning

*after*

| | |
|---|---|
| HPL | Horizontal protection limit |

*insert*

| | |
|---|---|
| MLJ | Military low jet |



Federal Register of Legislative Instruments F2010L01259

### [3] Subsection 1.2.1.1, the table of Definition and Meaning

*after*

| | |
|---|---|
| Vectoring | Provision of navigational guidance to aircraft in the form of specific headings, based on the use of an ATS surveillance system. |

*insert*

| | |
|---|---|
| VFR-on-top | An IFR flight with ATC authorisation to operate in VMC at or below FL180 in Class E airspace at any appropriate VFR altitude or flight level. |

### [4] After subsection 10.1.3

*insert*

### 10.1.4 Relaxation of Speed Restrictions

10.1.4.1 Subject to subsection 10.1.4.2, in providing an air traffic service in Class D airspace, including a Class D CTR, ATC may permit an aircraft to exceed the 200 KT Class D airspace speed limit.

*Note* The 200 KT speed limit for Class D airspace is a CASA direction to pilots under subregulation 99AA (5) of the *Civil Aviation Regulations 1988*.

10.1.4.2 After taking account of air traffic conditions, ATC may permit:

(a) a maximum speed limit of 250 KT; or

(b) if the pilot in command of an aircraft informs ATC that a speed greater than 250 KT is an operational requirement — a maximum speed limit of greater than 250 KT.

### 10.1.5 SARWATCH for IFR Aircraft conducting VFR Operations

10.1.5.1 The unit providing an ATS to an IFR aircraft must provide a SARWATCH service for the aircraft if it is conducting any of the following:

(a) a departure, climb or descent under the VFR;

(b) a VFR-on-top procedure.

10.1.5.2 Subsection 10.1.5.1 does not apply if the pilot in command has expressly cancelled the IFR flight plan.

*Note* SARWATCH service is a function of the flight plan, not of the particular procedure being flown at the relevant time.

### [5] Subsection 10.3.2.1

*omit*

### [6] Subsection 10.3.2.2

*substitute*

10.3.2.2 In addition to ICAO PANS-ATM applications, ATC may use parallel runways for Simultaneous Opposite Direction Operations (***SODPROPS***) (see subsection 10.4.8).



Federal Register of Legislative Instruments F2010L01259

## [7] After subsection 10.3.2.4

*insert*

10.3.2.5 At Class D aerodromes, ATC may authorise simultaneous, same direction operations on:

(a) parallel runways; or

(b) parallel landing areas; or

(c) a runway and a parallel landing area;

only if:

(d) Class D visual meteorological conditions exist, or visual separation between the relevant aircraft is applied; and

(e) 2-way radio communication is maintained with the aircraft involved; and

(f) pertinent traffic information is issued; and

(g) the minimum distance between the runways or landing areas is in accordance with the spacing specified for the categories of aircraft in the following table:

| **Aircraft** | **Distance between runway centrelines** | **Distance between edges of adjacent landing areas or runway and landing area** |
|---|---|---|
| Single engine, propeller driven | 90 m | 60 m |
| Twin engine, propeller driven | 150 m | 120 m |
| All others | 210 m | 180 m |

(h) for the table in paragraph (g):

(i) where aircraft of more than 1 category are operating at the same time, the greater or greatest of the minimum distances applies; and

(ii) a landing area includes a glider runway strip.

10.3.2.6 If the parallel runways at a Class D aerodrome do not meet the minimum spacing requirements under paragraph 10.3.2.5 (g), CASA may, in writing, approve simultaneous, same direction operations subject to conditions, if appropriate.

## [8] After subsection 10.5.4.6

*insert*

10.5.4.7 ATC may treat IFR aircraft or aircraft operating on a special VFR clearance (***relevant aircraft***) operating in Class D airspace as if they are operating under the VFR when:

(a) the relevant aircraft is:

(i) operating in the aerodrome circuit; and



Federal Register of Legislative Instruments F2010L01259

(ii) established on the same radio frequency as the ATC tower; and

(b) the ATC treatment is for the purpose of separating the relevant aircraft from aircraft in adjacent Class C airspace.

### [9] Subsection 10.6.4, the table, Minima for T7c, Second condition

*omit*

FL 125

*insert*

10 000 ft

### [10] Subsection 10.6.10.2

*substitute*

10.6.10.2 Longitudinal distance separation using ADS-C may be established by measuring the distance between:

(a) the displayed positions of 2 or more FANS-1/A aircraft reporting by ADS-C; or

(b) an ADS-C report symbol of a FANS-1/A aircraft and the position of another aircraft determined by an alternative form of position fixing, such as radar, ADS-B, voice or CPDLC reports.

### [11] Subsection 10.10.1.3

*substitute*

10.10.1.3 ATC may assign to the pilot of 1 aircraft responsibility to maintain separation with another aircraft only if:

(a) the aircraft to be separated are operating at or below 10 000 ft; and

(b) the pilot has:

(i) reported the other aircraft in sight; and

(ii) accepted responsibility to follow, or maintain his or her own separation with, that aircraft;

### [12] Subsection 10.12.1

*substitute*

### 10.12.1 Interpretation

10.12.1 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.

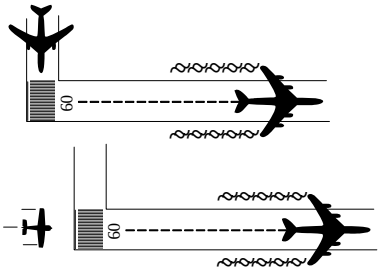
(b) **intermediate part — ICAO PANS-ATM**, of a runway, including of a parallel runway separated from the runway by less than 760 m, means a point more than 150 m after the take-off commencement point of the preceding aircraft using the runway or the parallel runway.

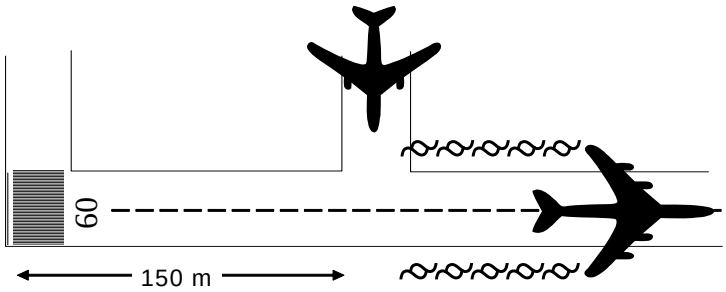
10.12.2 In addition to the categories of aircraft specified in PANS-ATM, the Airbus A380 is taken to constitute the **SUPER** wake turbulence category of aircraft.

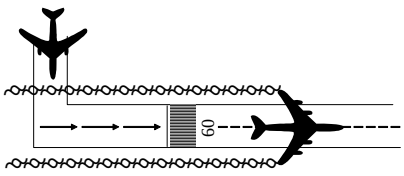
### [13] Subsection 10.12.2

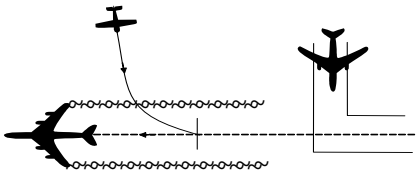
*substitute*

10.12.2.1 Time-based wake turbulence separation minima.

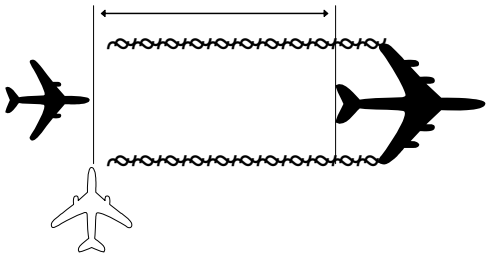
| **Full Length operations** | | | |
|---|---|---|---|
| **Aircraft Categories** | | **Separation Minima** | |
| **Leading aircraft** | **Following aircraft** | **Departure (Minutes)** | **Arrival (Minutes)** |
| SUPER | HEAVY | 2 | 3 |
| | MEDIUM | 3 | 3 |
| | LIGHT | 3 | 4 |
| HEAVY | MEDIUM | 2 | 2 |
| | LIGHT | 2 | 3 |
| MEDIUM fixed-wing aircraft with MTOW of 25 000 kg or more, and all MEDIUM helicopters | LIGHT | 2 | 3 |
|  | | | |

| Intermediate Departures | | | |
|---|---|---|---|
| **Aircraft Categories** | | **Separation Minima** | |
| **Leading aircraft** | **Following aircraft** | **(Minutes)** | **Application** |
| SUPER | HEAVY | 4 | Intermediate Departures minima must be applied when a following aircraft will commence take-off from an intermediate part more than 150 m after the take-off commencement point of the preceding aircraft, using the same runway or a parallel runway separated by less than 760 m. |
| | MEDIUM | 4 | |
| | LIGHT | 4 | |
| HEAVY | MEDIUM | 3 | |
| | LIGHT | 3 | |
| MEDIUM fixed-wing aircraft with MTOW of 25 000 kg or more, and all MEDIUM helicopters | LIGHT | 3 | |
|  | | | |

| Displaced Landing Threshold | | |
|---|---|---|
| **Aircraft Categories** | | **Separation Minima** |
| **Arriving aircraft** | **Departing aircraft** | **(Minutes)** |
| SUPER | HEAVY | 3 |
| | MEDIUM | 3 |
| | LIGHT | 3 |
| HEAVY | MEDIUM | 2 |
| | LIGHT | 2 |
| MEDIUM fixed-wing aircraft with MTOW of 25 000 kg or more, and all MEDIUM helicopters | LIGHT | 2 |
|  | | |

| **Opposite Direction** | | |
|---|---|---|
| **Aircraft Categories** | | **Separation Minima (Minutes)** |
| SUPER | HEAVY | 3 |
| | MEDIUM | 3 |
| | LIGHT | 3 |
| HEAVY | MEDIUM | 2 |
| | LIGHT | 2 |
| MEDIUM fixed-wing aircraft with MTOW of 25 000 kg or more, and all MEDIUM helicopters | LIGHT | 2 |
|  | | |

10.12.2.2 Distance-based wake turbulence separation

| **Distance-based wake turbulence separation** | | |
|---|---|---|
| **Aircraft Categories** | | **Separation Minima** |
| **Leading aircraft** | **Following aircraft** | **(NM)** |
| SUPER | HEAVY | 6 |
| | MEDIUM | 7 |
| | LIGHT | 8 |
| HEAVY | HEAVY | 4 |
| | MEDIUM | 5 |
| | LIGHT | 6 |
| MEDIUM fixed-wing aircraft with MTOW of 25 000 kg or more, and all MEDIUM helicopters | LIGHT | 5 |
|  | | |

### [14] Subsection 10.12.3.1

*substitute*

10.12.3.1 Subject to subsection 10.12.3.3, ATC must apply an appropriate wake turbulence separation minimum in all controlled airspace when an aircraft is:

(a) operating directly behind another aircraft's flight path; and

(b) at the same level as the other aircraft, or not more than 1 000 ft below it.

### [15] Subsection 10.12.3.2

*omit*

all words before paragraph (a)

*insert*

Subject to subsection 10.12.3.3, ATC must apply appropriate wake turbulence separation minima to aerodrome traffic when:

### [16] Subsection 10.12.3.3

*substitute*

10.12 3.3 ATC is not required to apply wake turbulence separation in the following situations:

(a) when a MEDIUM fixed-wing aircraft of less than 25 000 kg MTOW precedes a LIGHT aircraft;

(b) when an aircraft is landing behind another aircraft that is taking-off on the same runway;

(c) subject to 10.12.3.4, if a pilot has initiated a waiver of the relevant departure wake turbulence separation minimum;

(d) when a VFR aircraft is in flight and is:

(i) operating directly behind a preceding HEAVY or MEDIUM aircraft; or

(ii) landing on the same runway as a preceding HEAVY or MEDIUM aircraft; or

(iii) landing on a parallel runway separated by less than 760 m from the runway of a preceding HEAVY or MEDIUM aircraft;

(e) when an IFR aircraft is in flight and the pilot has:

(i) reported the preceding aircraft in sight; and

(ii) accepted responsibility to follow, or maintain his or her own separation with, that aircraft.

*Note*: For paragraphs (d) and (e), the pilot in command of the aircraft is responsible for ensuring that the spacing from a preceding aircraft of a heavier wake turbulence category is acceptable. If it is determined that additional spacing is required, the flight crew may inform ATC accordingly, stating their requirements.



Federal Register of Legislative Instruments F2010L01259

### [17] Subsection 10.12.3.4

*substitute*

10.12 3.4 For a LIGHT or MEDIUM fixed-wing aircraft, ATC may not waive the relevant wake turbulence separation minimum if:

(a) the aircraft is taking-off behind, or in a reciprocal direction to, a HEAVY or SUPER aircraft; and

(b) the HEAVY or SUPER aircraft has taken-off, or made a low or missed approach.

### [18] Subsection 10.12.3.5

*substitute*

10.12 3.5 ATC must issue a wake turbulence caution to the pilot of an aircraft if:

(a) less than the applicable wake turbulence separation minima may exist; or

(b) the applied wake turbulence separation minima may be infringed; or

(c) the pilot has waived the relevant departure wake turbulence separation requirement; or

(d) wake turbulence separation is not provided because of paragraph 10.12.3.3 (d) or (e), and wake turbulence may have an adverse effect on the aircraft.

### [19] Subsection 10.12.3.7

*substitute*

10.12 3.7 If the required wake turbulence separation can be determined by distance using an aircraft report or ATS surveillance system, ATC is not required to apply the relevant time minimum:

(a) between arriving aircraft; or

(b) unless the aircraft following will commence take-off from an intermediate point — between departing aircraft.

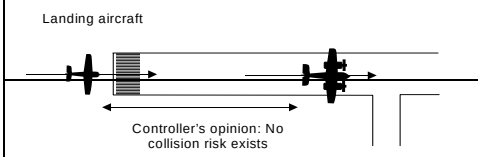
*Note* **Intermediate point** is explained in subsection 10.12.1.

### [20] Subsection 10.13.8

*omit*

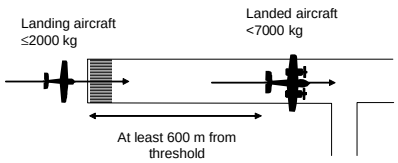
### [21] Subsection 10.13.9

*omit*

| Minimum | Application | Conditions | Diagram |
|---|---|---|---|
| Landing behind preceding aircraft | GAAP aerodromes only | A landing aircraft may be permitted to cross the runway<br>threshold behind a preceding aircraft, while the preceding<br>aircraft occupies the |  |

| Minimum | Application | Conditions | Diagram |
|---|---|---|---|
| | | runway, if in the opinion of tower<br>controller no collision risk exists. | |

*insert*

| Minimum | Application | Conditions | Diagram |
|---|---|---|---|
| Landing behind a preceding landing aircraft | Applies only where:<br>(a) the following landing aircraft has an MTOW of 2 000 kg or less; and<br>(b) the preceding aircraft has an MTOW of less than 7 000 kg. | The landing aircraft must not be permitted to cross the runway threshold until the preceding aircraft:<br>(a) has landed; and<br>(b) has passed a point at least 600 m from the threshold of the runway; and<br>(c) is still in motion; and<br>(d) will vacate the runway without backtracking. |  |

**[22] Subsection 11.1.1**

*omit*

**[23] Subsection 11.1.2.3**

*substitute*

11.1.2.3 ATIS ZULU:

(a) must include the following:

(i) the expected re-opening time of the Tower;

(ii) CTAF and PAL frequency;

(iii) the preferred runway or circuit direction;

(iv) noise abatement procedures;

(v) works in progress; and

(b) may include operational information of an unchanging nature which provides immediately useful information to pilots.



Federal Register of Legislative Instruments F2010L01259

### [24] Subsection 11.1.5.5

*substitute*

11.1.5.5 If the pilot in command of an IFR or MLJ aircraft at a non-towered aerodrome reports to the unit providing an ATS for the aerodrome that his or her aircraft is taxiing at or airborne from, the aerodrome, the unit must inform the pilot of conflicting traffic which is not on the CTAF.

### [25] Subsection 11.1.5.6

*substitute*

11.1.5.6 The unit providing an ATS for a non-towered aerodrome must inform IFR or MLJ aircraft inbound to the aerodrome of conflicting traffic regardless of where the confliction will occur. However, this obligation ceases when the pilot reports "CHANGING CTAF" or that he or she is changing to the MULTICOM frequency.

### [26] After subsection 12.1.2.2

*insert*

12.1.2.3 Unless ATC instructs otherwise, a pilot intending to land at an aerodrome within Class D airspace may descend to join the aerodrome traffic circuit after he or she has established 2-way communications with the Tower.

### [27] After subsection 12.1.7

*insert*

### 12.1.8 Clearance by Establishment of 2-way Communications

12.1.8.1 For this subsection, 2-way communication is established if ATC responds to a pilot's radio call with the aircraft's radio identification.

12.1.8.2 In addition to issuing a pilot with a specific clearance or instruction, ATC may authorise an aircraft to enter Class D airspace by establishing 2-way communication with it.

**Notes:**

1 If ATC responds to a radio call with the aircraft identification (generally including an instruction or report requirement), 2-way radio communications have been established and the pilot can enter the Class D airspace.

2 If ATC responds to the initial radio call without using the aircraft identification, 2-way radio communication has not been established and the pilot may not enter the Class D airspace.

3 If workload or traffic conditions prevent immediate entry into the Class D airspace, ATC should expressly instruct the pilot to remain outside the Class D airspace.

4 The pilot of an aircraft is required to comply with any instruction that ATC includes with the establishment of 2-way communication, including an instruction to remain outside the Class D airspace.



Federal Register of Legislative Instruments F2010L01259

**[28] After subsection 12.3.3.8**

*insert*

12.3.3.9 Within a Class D CTR, a clearance to take-off is a clearance to operate within the CTR.

**[29] Section 12.4**

*omit*

**[30] Section 12.5**

*omit*

**[31] Section 12.6**

*omit*

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Federal Register of Legislative Instruments F2010L01259