I, philippa jillian spence, Director of Aviation Safety, on behalf of CASA, make this instrument under regulation 172.022 of the *Civil Aviation Safety Regulations 1998*.

**[Signed P. Spence]**

Pip Spence
Director of Aviation Safety

11 July 2023

Part 172 (Air Traffic Service Providers) Amendment (Facilities & Equipment) Manual of Standards 2023

1 Name of instrument

 This instrument is the *Part 172 (Air Traffic Service Providers) Amendment (Facilities & Equipment) Manual of Standards 2023*.

2 Commencement

 This instrument commences on the day after it is registered.

3 Amendment of the Manual of Standards for Part 172

 Schedule 1 amends the Manual of Standards issued by CASA under regulation 172.022 of CASR.

*Note*   See the definition of ***Manual of Standards*** in regulation 172.010 of CASR. The current compilation of the Manual of Standards has the FRL identifier F2020C00158.

Schedule 1 Amendment

[1] Chapter 3

substitute

# **CHAPTER 3: ATS FACILITIES AND EQUIPMENT**

### 3.01 Scope of Chapter 3

####  This Chapter:

##### (a) is made for regulation 172.095 of CASR; and

##### (b) sets out standards for facilities and equipment used to provide an air traffic service.

### 3.02 Definitions

####  In this Chapter:

***ICAO Doc. 4444*** means *Procedures for Air Navigation Services — Air Traffic Management* (Doc 4444, PANS-ATM) approved and published by decision of the Council of the International Civil Aviation Organization, as in force from time to time, subject to the differences mentioned in Gen 1.7 of Part 1 of the AIP.

***visual surveillance system*** has the same meaning as in ICAO Doc. 4444.

### 3.03 Control towers

 Visibility standards

####  (1) A control tower for a controlled aerodrome must be designed, oriented and equipped to enable a controller to maintain visual observation, achieved through direct out-of-the-window observation, or indirect observation using a visual surveillance system that meets the requirements of section 3.05, of:

##### (a) all parts of the manoeuvring area at the aerodrome for which the controller has responsibility; and

##### (b) the runway strips associated with the areas mentioned in paragraph (a); and

##### (c) the parts of any service roads that are within 150 m of a runway for which the controller has responsibility; and

##### (d) any other parts of the aerodrome movement area for which the controller has responsibility; and

##### (e) aircraft in flight at, or in the vicinity of, the aerodrome.

*Note*See the definition of ***manoeuvring area*** in the Act and the Part 139 Manual of Standards. The terms ***runway strip*** and ***movement area*** are defined in the CASR Dictionary.

 Glare, reflection and noise

####  (2) The control tower must be designed, oriented and equipped such that the impacts of glare, reflection and noise on a controller performing duties in the tower are minimised.

 Signal lamp

 (3) The control tower must have the facilities, and access to equipment, necessary to enable white, red and green light signals to be directed from a prominent place on the aerodrome.

*Note*   Also, subregulation 172.095 (3) of CASR provides that equipment and facilities mentioned in Chapter 6 of Annex 11 to the Chicago Convention must meet the standards of that chapter.

### 3.04 Detecting movement of departing aircraft at controlled aerodromes

 General application—control towers commissioned after July 2000

 (1) Subsection (4) applies in relation to a control tower for a controlled aerodromeif the control tower was first commissioned after 1 July 2000.

 Delayed application for old control towers—modified runways

 (2) On and after 20 March 2025, subsection (4) applies to a control tower for a controlled aerodrome in relation to a runway at the aerodrome, if:

##### (a) the control tower is not a tower mentioned in subsection (1); and

##### (b) the runway is modified after 1 July 2000; and

##### (c) as a result of the modification, a controller’s ability to maintain visual observation of the runway, or to detect the movement of a departing aircraft after the aircraft has commenced its take-off run, has been degraded.

 Delayed application for old towers—new runways

 (3) Also, on and after 20 March 2025, subsection (4) applies to at a control tower for a controlled aerodrome in relation to a runway at the aerodrome, if:

##### (a) the control tower is not a tower mentioned in subsection (1); and

##### (b) the runway was first commissioned after 1 July 2000.

 “Five-second” rule

####  (4) The control tower must be designed, oriented and equipped to enable a controller to detect the movement of a departing aircraft:

##### (a) as soon as possible after the aircraft has commenced its take-off run; but

##### (b) no later than 5 seconds after the take-off run commences.

### 3.05 Visual surveillance systems providing aerodrome control service

####  An ATS provider may use a visual surveillance system, in the provision of aerodrome control service, to perform a function listed in Section 7.1 of ICAO Doc. 4444, only if the visual surveillance system meets the standards mentioned in Section 7.12 of ICAO Doc. 4444.

*Note 1*   Section 7.1 of ICAO Doc. 4444 lists functions of aerodrome control towers. Under subregulation 172.075 (1) of CASR, an ATS provider must ensure that any traffic service that it provides is provided in accordance with the procedures and rules set out in ICAO Doc. 4444, as varied by Gen 1.7 of Part 1 of the AIP.

*Note 2*   The term ***aerodrome control service*** has the same meaning as in Annex 11 (see the definition of the term in the CASR Dictionary).

*Note 3*   As a system that processes or displays air traffic control data, a visual surveillance system is a ***telecommunication service*** as defined in regulation 171.012 of CASR. A visual surveillance system, therefore, is also regulated under Part 171 of CASR as a telecommunication service, including how CASA approves a person to be a provider of the service, and obligations of providers.

### 3.06 Displays for control towers

####  (1) A control tower must have the following displays:

##### (a) flight data displays (for example, flight progress boards);

##### (b) meteorological displays which provide at least the following information:

######  (i) surface wind;

######  (ii) barometric pressure;

######  (iii) temperature;

######  (iv) if the aerodrome has runway visual range equipment—the current runway visual range values;

##### (c) operational data displays for the following:

######  (i) other significant weather information;

######  (ii) NOTAMs;

######  (iii) handover/takeover;

######  (iv) essential aerodrome information;

######  (v) relevant maps and charts;

##### (d) a time display at each operational position.

####  (2) For the purposes of subparagraph (1) (b) (i), if more than one surface wind sensor is used at the aerodrome, the displays must identify the sensor being used for the observation.

### 3.07 Control towers—requirements about aerodrome equipment and navigation aids

 Switching, monitors and controls for aerodrome equipment

####  (1) A control tower for a controlled aerodrome must have appropriate switching, monitors and controls for lighting equipment installed at the aerodrome, including for the following equipment:

##### (a) runway lighting;

##### (b) approach lighting;

##### (c) taxiway lighting;

##### (d) visual approach slope indicator systems;

##### (e) stop bars;

##### (f) obstacle lighting;

##### (g) illuminated wind direction indicator;

##### (h) aerodrome beacon.

 Navigation aids

####  (2) The control tower must have a means to readily recognise the failure of any navigation aid being used for the control of aircraft.

*Note*   Subsection (2) covers both ground-based and space-based navigation aids.

### 3.08 Area and approach control units

####  (1) Area control centres and approach control units must have the following facilities:

##### (a) time display at each operational position;

##### (b) flight data displays;

##### (c) operational data displays;

##### (d) appropriate maps and charts.

*Note*   Annex 11 also contains provisions regulating facilities in relation to area and approach control units. Subregulation 172.095 (3) of CASR requires that equipment and facilities mentioned in Chapter 6 of Annex 11 that an ATS provider uses in providing an air traffic service must comply with the standards of that chapter.

####  (2) Area control centres and approach control units must have a means to readily recognise the failure of any navigation aid being used for the control of aircraft.

*Note 1*   Also, subregulation 172.095 (3) of CASR provides that equipment and facilities mentioned in Chapter 6 of Annex 11 to the Chicago Convention must meet the standards of that chapter.

*Note 2*   Subsection (2) covers both ground-based and space-based navigation aids.