



**PURSUANT** to Sections 28 and 30 of the Civil Aviation Act 1990

**I, Hon Michael Wood, Minister of Transport,**

**HEREBY MAKE** the following ordinary rules.

**SIGNED AT Wellington**

This *13<sup>th</sup>* day of *December* 2020

A handwritten signature in grey ink, appearing to read 'M Wood', is written over a faint, larger version of the signature.

by Hon Michael Wood

**Minister of Transport**

**Civil Aviation Rules  
Part 172, Amendment 15**

**Air Traffic Service Organisations Certification**

*Docket 20/CAR/1*

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## **Rule objective**

The objective of amendment 15 to Part 172 is to make consequential amendments to certain rules to give full effect to the transition from secondary surveillance radar systems to Automatic Dependent – Broadcast (ADS-B) OUT.

The definitions of **situation display** and **visual surveillance system** are inserted to align with the ICAO definitions.

The proposed amendments to Part 172 are associated with amendment 33 to Part 91, amendment 10 to Part 101 and amendment 56 to Part 1.

## **Extent of consultation**

A Notice of Proposed Rulemaking, NPRM 19-05, containing the proposed amendments to Parts 91 and 172 was issued for public consultation under Docket 20/CAR/1 on 19 December 2019.

The NPRM was published on the CAA web site and mailed to identified stakeholders including representative organisations who were considered likely to have an interest in the proposal.

A period of 64 days was allowed for comment on the proposed rule.

## **Summary of submissions**

Forty two written submissions and no oral submissions were received on the NPRM. A summary of submissions for this NPRM is available on the CAA website.

These submissions and comments have been considered and as a result, the following amendments have been made –

- (1) in rule 172.67(da) – by requiring the applicant to have alternative procedures to follow when the automated coordination fails (new paragraph (2) inserted);
- (2) in rule 172.67(db) – by requiring the applicant to ensure that the controller facilitates the required coordination using the procedures referred to in paragraph (da) (new paragraph (2) inserted); and

- (3) in rule 172.107(6) – by deleting “between” and replacing with “for”, in the phrase *between aircraft equipped with ADS-B system*, for better readability.

### **Examination of submissions**

Submissions may be examined by application to the Docket Clerk at the Civil Aviation Authority between 8:30 am and 4:30 pm on weekdays, except statutory holidays.

### **Insertion of Amendments**

The amendments to the rules in this Part are reflected -

- in rule 172.3 by revoking the definition of **Air situation display**, and inserting the definitions of **Situation display** and **Visual surveillance system** in their logical sequence; and
- revoking and replacing rules 172.57, 172.67, 172.107, 172.115, 172.265, 172.267 and 172.401.

### **Effective date of rule**

Amendment 15 to Part 172 comes into force on 8 February 2021

### **Availability of rules**

Civil Aviation Rules are available from—

CAA web site: <http://www.caa.govt.nz/>

Freephone: 0800 GET RULES (0800 438 785)

## Part 172 Air Traffic Service Organisations — Certification

*Rule 172.3 is amended –*

- (1) *by revoking the definition of “air situation display”, and replacing with the definition of “Situation display” after “Rated flight service operator”; and*
- (2) *by inserting the new definition of “Visual surveillance system” after the definition of “Traffic information”.*

### **172.3 Definitions**

**Situation display** means an electronic display depicting the position of and movement of aircraft and other information as required:

**Visual surveillance system** includes an electro-optical system providing an electronic visual presentation of traffic and any other information necessary to maintain situational awareness at an aerodrome and its vicinity:

*Rule 172.57 is revoked and replaced with the following rule*

### **172.57 Facility requirements**

(a) An applicant for the grant of an air traffic service certificate must establish the following facilities that are appropriate to the air traffic services listed in the applicant’s exposition:

- (1) aerodrome control towers:
- (2) approach control offices:
- (3) area control centres:
- (4) aerodrome flight information offices:
- (5) flight information centres:
- (6) dedicated training and assessment facilities.

(b) Except as provided in paragraph (h), an applicant for an aerodrome control service, or an aerodrome flight information service, must establish procedures for ensuring that any aerodrome control tower or aerodrome flight information office, including any temporary tower or office, listed in the applicant's exposition, is—

- (1) constructed and situated to provide—
  - (i) the maximum practicable visibility of aerodrome traffic; and
  - (ii) protection from glare and reflection; and
  - (iii) protection from noise; and
- (2) safeguarded from any development that would affect the requirements of paragraph (b)(1); and
- (3) at solo watch locations, provided with—
  - (i) toilet facilities that ensure the minimum possible interruption to, or degradation of, air traffic services; and
  - (ii) storage and preparation facilities for food and drink in the visual control room; and
- (4) provided with equipment for two-way voice communication with—
  - (i) any aircraft, in or adjacent to airspace for which the applicant has responsibility; and
  - (ii) any aircraft, vehicle, and person, on, or adjacent to, the manoeuvring area; and
- (5) provided with the following minimum equipment:
  - (i) a display system or systems designed to show the disposition of current and pending aerodrome traffic together with ancillary information for individual aircraft:

- (ii) a power supply:
  - (iii) appropriate and current maps and charts:
  - (iv) binoculars:
  - (v) clocks:
  - (vi) log keeping system:
  - (vii) outside temperature indicator:
  - (viii) QNH display:
  - (ix) signal lamp with green, red, and white functions:
  - (x) telephone communications:
  - (xi) status monitors for approach and landing aids and any road or rail signalling equipment affecting the use of a runway:
  - (xii) visibility and cloud height checkpoints:
  - (xiii) voice and, if applicable, data recording equipment:
  - (xiv) wind direction and wind speed display:
  - (xv) an audible emergency alerting system:
  - (xvi) an AFTN terminal or, if provided for in an ATS letter of agreement, an alternative means of reception and transmission of information normally conveyed by AFTN:
  - (xvii) if applicable, airfield lighting controls panel; and
- (6) provided with 2 independent sources of the current altimeter setting, at least 1 of which must be an aneroid barometer or barometric altimeter situated in the visual control room.

(c) The applicant must establish procedures for ensuring that an area control centre, a flight information centre, and an approach control office is—

- (1) provided with equipment enabling—
  - (i) to the fullest extent practical, two-way voice communication; and
  - (ii) if applicable, data communication with any aircraft in, or adjacent to, airspace for which the applicant has responsibility; and
  - (iii) situation display, where an ATS surveillance service is provided; and
- (2) provided with the following minimum equipment:
  - (i) a display system or systems designed to show the disposition of current and pending flights together with ancillary information for individual aircraft:
  - (ii) a power supply:
  - (iii) appropriate and current maps and charts:
  - (iv) clocks:
  - (v) log keeping system:
  - (vi) status monitors as appropriate for navigation, approach, and landing aids:
  - (vii) telephone communications:
  - (viii) voice recording equipment and, if applicable, data recording equipment:
  - (ix) an AFTN terminal:
  - (x) for an approach control operating position, an ILS/MLS status monitor at the approach control



procedural or approach control surveillance operating position for the aerodrome concerned:

- (xi) for an approach control operating position responsible for aircraft on final approach, or aircraft landing or taking-off, a wind direction and wind speed display fed from the same source as the corresponding equipment in the aerodrome control tower.
- (d) The applicant must establish procedures for ensuring that the aeronautical telecommunications equipment required by paragraphs (b) and (c) are operated as specified under Part 171.
- (e) The applicant must establish procedures for ensuring that any display system including the situation display used by an air traffic service is positioned with due regard to the relative importance of the information displayed and ease of use by the staff concerned.
- (f) The equipment required by paragraphs (b)(4) and (5), and (c)(1) and (2), must have a level of reliability, availability, and redundancy, that minimises the possibility of failure, non-availability, or significant degradation of performance.
- (g) The applicant must establish procedures for ensuring that the status monitors required by paragraph (b)(5)(xi) and paragraphs (c)(2)(vi) and (x) are fitted with—
- (1) an aural signal to indicate a change of status; and
  - (2) a visual indication of the current status.
- (h) A temporary aerodrome control tower and a temporary aerodrome flight information office are not required to be provided with the equipment required under paragraphs (b)(5)(xi), (xvi) and (xvii) if it is impracticable to do so and other appropriate measures are taken, as the case may be, to—
- (1) provide the person providing the air traffic service from the temporary tower or office with the information that would be available from the equipment required under paragraphs (b)(5)(xi) and (xvi); and

- (2) control the airfield lighting if applicable.

*Rule 172.67 is revoked and replaced with the following rule*

**172.67 Co-ordination requirements**

(a) An applicant for the grant of an air traffic service certificate must establish systems and procedures for ensuring, if applicable, co-ordination between each ATS unit listed in the applicant's exposition and the following agencies—

- (1) each holder of an aeronautical telecommunication service certificate issued under the Act and Part 171; and
- (2) each holder of an instrument flight procedure service certificate issued under the Act and Part 173; and
- (3) each holder of a meteorological service certificate issued under the Act and Part 174; and
- (4) each holder of an aeronautical information service certificate issued under the Act and Part 175; and
- (5) aircraft operators; and
- (6) the New Zealand Defence Force; and
- (7) search and rescue authorities; and
- (8) if the listed ATS unit is an aerodrome control or aerodrome flight information unit—
  - (i) the aerodrome operator; and
  - (ii) the apron management service, if the service is not provided by the aerodrome control unit.

(b) The applicant must establish procedures for ensuring that an ATS letter of agreement is in place between each ATS unit listed in the applicant's exposition and—

- (1) each ATS unit responsible for adjoining airspace, and

- (2) any other ATS unit with which regular operational co-ordination is required.
- (c) The applicant must establish procedures for ensuring that each ATS letter of agreement—
- (1) details matters that are necessary for effective co-ordination between the units party to the agreement; and
  - (2) is kept current; and
  - (3) is signed by senior representatives of the participating units; and
  - (4) is part of the applicant’s operations manual.
- (d) The applicant must provide systems and procedures for facilitating communications between those ATS units that have an operational requirement to communicate with each other.
- (da) The applicant must establish automated coordination procedures –
- (1) where the ATS surveillance system provides for the automated exchange of co-ordination data relevant to aircraft being provided with an ATS surveillance service; and
  - (2) include alternative procedures to follow when the automated coordination fails.
- (db) The applicant must ensure that –
- (1) the failure of automated coordination is presented to the controller responsible for coordinating the flight at the transferring unit; and
  - (2) the controller facilitates the required coordination using the procedures referred to in paragraph (da).
- (e) The applicant must provide systems and procedures for ensuring that ATS units, aircraft operators, and aviation meteorological service providers, if they require the information, are provided, through the exchange of ATS messages, with details of—

- (1) the intended movement of each aircraft for which a flight plan has been filed, and any amendments to the flight plan; and
  - (2) current information on the actual progress of the flight.
- (f) The applicant must establish procedures for ensuring that ATS messages are prepared and transmitted in accordance with procedures detailed and cross-referenced in ICAO Document 4444 (Chapter 11 – Air Traffic Services Messages), except that the term *CAVOK* must not be used.

***Rule 172.107 is revoked and replaced with the following rule:***

### **172.107 ATS Surveillance Service**

An applicant for the grant of an air traffic service certificate must establish procedures for ensuring that, where an ATS surveillance system is used to support the provision of an air traffic service—

- (1) all ATS surveillance services are provided in accordance with procedures published in—
  - (i) ICAO Document 4444; or
  - (ii) ICAO Document 7030 (as applicable to the Middle East/Asia Region); or
  - (iii) Subpart G; and
- (2) SSR code allocation for international flights is in accordance with the code assignment system published in the applicable ICAO Air Navigation Plan; and
- (3) an SSR code management plan is in place for domestic flights that—
  - (i) conforms to the applicable principles contained in ICAO Document 4444; and
  - (ii) does not conflict with the SSR code allocation tables of rule 91.247(a); and

- (4) full information is made available to inform pilots and aircraft operators on—
  - (i) the nature and extent of the ATS surveillance services provided; and
  - (ii) any significant limitations regarding such ATS surveillance services; and
  - (iii) all areas where PSR, SSR, ADS-B and MLAT systems or other ATS surveillance systems are in use; and
- (5) the information displayed at individual ATS surveillance service operating positions is that required for the air traffic services to be provided; and
- (6) for aircraft equipped with ADS-B systems that meet the requirements of rule 91.257, and operating in transponder mandatory controlled airspace designated under Part 71 within the New Zealand FIR; and
- (7) ADS-B must only be used for the provision of an air traffic control service when the message set elements meet the requirements referred to in rule 91.257(4); and
- (8) ADS-B may only be solely relied on to provide for the separation between aircraft when –
  - (i) the aircraft to be separated is identified and its identity is maintained; and
  - (ii) the data integrity measure in the ADS-B message is adequate to support the separation minimum; and
- (9) for a discreet operation referred to in rule 91.255D -
  - (i) the procedures and separation requirements for aircraft are approved by the Director; and
  - (ii) the appropriate ATS unit approves the carrying out of the discreet operation only after being satisfied that there will be safe separation between aircraft.

***Rule 172.115 is revoked and replaced with the following rule:***

**172.115 Records**

(a) An applicant for the grant of an air traffic service certificate must establish systems and procedures for identifying, collecting, indexing, filing, storing, securing, maintaining, accessing, and disposing of, records necessary for—

- (1) the operational provision of air traffic services; and
- (2) the purpose of assisting with any accident or incident investigation.

(b) The records referred to in paragraph (a) must include—

- (1) telephone communications; and
- (2) radio broadcasts and communications; and
- (3) air-ground digital data exchanges; and
- (4) ATS surveillance system data; and
- (5) filed flight plans including standard and repetitive plans; and
- (6) flight progress strips; and
- (7) staff duty rosters; and
- (8) appropriate meteorological and aeronautical information, except where the information is retained for an equivalent period by a meteorological or AIS organisation; and
- (9) [revoked]
- (10) a record for every person who is required to be trained under rule 172.165, including details of—
  - (i) each segment of training that is undertaken; and
  - (ii) knowledge testing or competency assessment as appropriate for the training conducted.

(c) The applicant must establish systems and procedures for ensuring the electronic recording of—

- (1) all ATS radio and telephone communications; and
- (2) all high-frequency air-ground communications; and
- (3) all relevant data from ATS surveillance systems used in providing or supporting an ATC service; and
- (4) for any equipment coming into service after the date this Part comes into force, any transfer and acceptance of control process not conducted by telephone.

(d) The applicant must establish systems and procedures for ensuring that electronic records referred to in paragraph (c)—

- (1) include time recording, correct to within 5 seconds of UTC, as determined by reference to a standard time station or GPS time standard; and
- (2) either—
  - (i) replicate the voice communications, and, if applicable, a situation display presentation applying at the particular operating position; or
  - (ii) are accompanied by a statement fully describing the differences between the recording supplied and a recording under paragraph (i); or
  - (iii) replicate the visual surveillance system display.

(e) The option provided by paragraph (d)(2)(ii) only applies to equipment that was in service on 1 January 1998.

(f) The applicant must establish systems and procedures for ensuring that all records, except where replication is required by paragraph (d)(2)(i), are sufficiently clear to convey the required information.

(g) The applicant must establish procedures for ensuring that the records referred to in paragraph (b) are retained for 31 days from the date of entry, except for—

- (1) staff duty rosters which must be retained for 2 years; and
- (2) written records associated with the requirements of rules 172.121(a)(2) and (3) which must be retained for 2 years; and
- (3) training records which must be retained for a period of 3 years from the date the affected person ceases to work or be associated with the air traffic service organisation.

*Rule 172.265 is revoked and replaced with the following rule:*

#### **172.265 Reduced separation when providing an ATS surveillance service**

The Director may, in accordance with paragraph 8.7.3.2 and 8.7.3.3 of ICAO Document 4444, approve a reduction of the standard 5 NM minimum separation prescribed in paragraph 8.7.3.1 of ICAO Document 4444.

*Rule 172.267 is revoked and replaced with the following rule:*

#### **172.267 Separation from an unidentified controlled flight by ATS surveillance service**

A minimum separation of 5 NM may be applied in any of the following circumstances—

- (1) between an identified aircraft and an unidentified controlled flight entering or about to enter ATS surveillance system coverage under ICAO Document 4444 paragraph 8.7.2.8 a) and b); or
- (2) between a previously identified aircraft which has since passed out of ATS surveillance system cover, and a following identified aircraft, provided the following aircraft can achieve the appropriate vertical separation before the position at which the preceding aircraft passed out of ATS surveillance system cover; or



- (3) between aircraft on reciprocal tracks, when an identified aircraft is at least past the position at which previously identified aircraft passed out of ATS surveillance system cover; or
- (4) using an ATS surveillance system may be applied between an identified aircraft and the cleared route of an unidentified controlled VFR flight; or
- (5) between aircraft equipped with ADS-B systems that meet the requirements of rule 91.257, and operating in transponder mandatory controlled airspace designated under Part 71 within the New Zealand FIR.

***Rule 172.401 is revoked and replaced with the following rule:***

**172.401 Verification of transponder level information**

- (a) Subject to paragraph (b), aerodrome control may verify the transponder level information of a departing aircraft when the aerodrome control situation display indicates a positive rate of climb from the aerodrome elevation.
- (b) Transponder level information must not be used when the displayed level varies by more than 300 feet from the aerodrome elevation during the take-off roll.