



Australian Government

Civil Aviation Safety Authority

Instrument number CASA 30/21

I, ANDREW MELVIN SPARROW, Acting Executive Manager, National Operations & Standards, a delegate of CASA, make this instrument under the regulation 11.245 of the *Civil Aviation Safety Regulations 1998*.

[Signed A. Sparrow]

Andrew Sparrow

Acting Executive Manager, National Operations & Standards

27 April 2021

CASA 30/21 – Required Communication Performance and Required Surveillance Performance (RCP 240 and RSP 180) Capability Declarations – Direction 2021

1 Name of instrument

This instrument is *CASA 30/21 – Required Communication Performance and Required Surveillance Performance (RCP 240 and RSP 180) Capability Declarations – Direction 2021*.

2 Duration

The instrument:

- (a) commences on 1 May 2021; and
- (b) is repealed at the end of 30 April 2024.

Note For regulation 11.250 of CASR, the direction in section 6 ceases to be in force at the end of 30 April 2024.

3 Definitions

For the purposes of this instrument only:

aircraft flight manual (AFM) means the manual associated with the certificate of airworthiness of a relevant aircraft, containing:

- (a) limitations within which the aircraft is considered airworthy; and
- (b) instructions and information necessary to enable the flight crew members to safely operate the aircraft.

aircraft operator has the meaning given by section 5.

ATC means air traffic control.

automatic dependent surveillance — contract (ADS-C) means a contract between ATC and a relevant aircraft's system:

- (a) for the reporting of aircraft position and other data via a datalink; and

- (b) which specifies:
- (i) under what conditions ADS-C reports are to be initiated; and
 - (ii) what data is to be contained in the reports.

communication services provider (CSP) means any public or private entity which, under a contract or agreement, provides communication services for general air traffic which may include services provided by a satellite service provider (SSP) or services provided by the CSP in its own capacity as an SSP.

controller-pilot datalink communications (CPDLC) is the means of communication between ATC and a pilot, using datalink for ATC communications.

datalink operations means operations using FANS 1/A avionics.

FANS 1/A is a direct datalink communication between the pilot of a relevant aircraft and ATC via FANS 1/A avionics and FANS 1/A ground end systems, based on EUROCAE ED-100A/RTCA DO-258A, or a later version as in force from time to time. References to FANS 1/A are taken to include FANS 1/A+.

flight plan means the specified information provided to ATC in relation to an intended flight or portion of a flight of an aircraft.

master minimum equipment list (MMEL) means the list:

- (a) established for a relevant aircraft type by the organisation responsible for the type design and approved by the State of Design; and
- (b) containing items, 1 or more of which is permitted to be unserviceable at the commencement of a flight.

Note The MMEL may be associated with special operating conditions, limitations or procedures.

minimum equipment list (MEL) means the list which:

- (a) provides for the operation of a relevant aircraft with particular equipment inoperative, subject to specified conditions; and
- (b) is prepared by an operator in conformity with, or in terms more restrictive than, the MMEL established for the aircraft type.

performance-based communication (PBC) means communication based on performance specifications applied to the provision of air traffic services.

performance-based communication and surveillance (PBCS) means the application of required communication performance (RCP) and required surveillance performance (RSP) specifications to ensure appropriate performance levels for relevant air traffic management operations.

performance-based surveillance (PBS) means surveillance based on performance specifications applied to the provision of air traffic services.

RCP 240 is the value for the communication expiry time (namely, 240 seconds) after which the initiator of the communication is required to revert to an alternative procedure.

Note In the context of RCP, the initiator is normally an air traffic controller.

RCP allocation is a portion of an RCP parameter, and is a time value assigned to a specific component of the communication system used for transferring messages between aircraft and ATC.

RCP parameters are performance characteristics that:

- (a) provide the basis for developing an RCP specification; and

- (b) include RCP transaction time, RCP continuity, RCP availability and RCP integrity.

RCP pilot operational response time, or **RCP PORT**, is an RCP allocation that specifies the maximum time for the flight crew to recognise and respond to an ATC instruction.

relevant aircraft has the meaning given by section 5.

required communication performance (RCP) specification means the requirements needed to support PBC, being requirements for the following:

- (a) ATC and associated ground equipment;
- (b) the communication service provider;
- (c) aircraft equipment;
- (d) flight crew.

required surveillance performance (RSP) specification means the requirements needed to support PBS, being requirements for the following:

- (a) aircraft equipment;
- (b) the communication service provider;
- (c) ATC and associated ground equipment;

RSP 180 is the value for the surveillance data delivery time (namely, 180 seconds) at which the surveillance data delivery is considered overdue.

Note RSP 180 means that 99.9% of surveillance data must be delivered in less than 180 seconds.

RSP allocation is a portion of an RSP parameter and is a time value assigned to a specific component of the communication system used for transferring surveillance reports from aircraft to ATC.

RSP parameters are performance characteristics that:

- (a) provide the basis for developing an RSP specification; and
- (b) include RSP data delivery time, RSP continuity, RSP availability and RSP integrity.

satellite service provider (SSP) means an entity or group of entities that provide the portion of the communication system that involves the operation of 1 or more satellites.

terms and conditions means the terms and conditions mentioned in clause 7 of Schedule 1.

4 References to instruments and documents

In this instrument, unless the contrary intention appears, a reference to an instrument or other document (however described) is a reference to the instrument or document as in force or existing from time to time.

5 Application

- (1) This instrument applies to an **aircraft operator**:
 - (a) who is the operator of an Australian aircraft; or
 - (b) who is the holder of an air operator's certificate (an AOC) for an aircraft issued under Division 2 of Part III of the *Civil Aviation Act 1988*;if the aircraft operator:
 - (c) conducts datalink operations in the aircraft using FANS 1/A; and

- (d) intends to declare RCP and RSP capabilities for the aircraft in any Australian-administrated, or foreign-administered, airspace.
- (2) An aircraft mentioned in subsection (1) is a **relevant aircraft**.

6 Direction

I direct that an aircraft operator may declare that the relevant aircraft has RCP capability and RSP capability, only if:

- (a) the declaration relates solely to RCP 240 and RSP 180 capabilities; and
- (b) the requirements set out in Schedule 1 are complied with at the time of the declaration.

Note 1 The effect of this instrument is that an aircraft operator to whom the instrument applies – see section 5 – who fully complies with the requirements of the instrument may consider that it is authorised to declare RCP 240 and RSP 180 capabilities.

Note 2 It is ultimately a matter for the relevant aviation authority to be satisfied that an aircraft operator's declaration is, *in actual fact*, valid for the relevant aircraft at the time of any declaration, audit or inspection. A false declaration would constitute an offence under regulation 11.255 of CASR and could result in other legal consequences under the *Civil Aviation Act 1988*.

Schedule 1 Requirements for a declaration that an aircraft has RCP 240 and RSP 180 capabilities

Equipment and performance

- 1 The aircraft must be equipped with avionics supporting ADS-C and CPDLC applications over FANS 1/A.
- 2 A declaration of RCP 240 and RSP 180 capabilities must not be made if:
 - (a) the aircraft operator has received advice from Airservices Australia that the relevant aircraft has consistently not met the operational criteria of RCP 240 and RSP 180 specifications; and
 - (b) the aircraft operator has failed to ensure that the aircraft does consistently meet the operational criteria of the specifications.

Note Airservices Australia monitors datalink communications in Australian-administered airspace and advises when operational criteria of RCP 240 and RSP 180 specifications are consistently not met.

Aircraft documentation

- 3 Subject to clause 4, one of the following:
 - (a) the AFM;
 - (b) an original equipment manufacturer service letter;
 - (c) any other document from the entity responsible for the design approval of the aircraft datalink communications equipment;must include a statement of compliance (an **SOC**) indicating that:
 - (d) the aircraft system is approved for datalink communications using FANS 1/A avionics; and
 - (e) the aircraft datalink system meets the aircraft-allocated requirements of the RCP 240 and RSP 180 specifications.
- 4 If a document mentioned in paragraph 3 (a), (b) or (c) does not include an SOC, the following may act as a temporary substitute pending the formal issue of the

SOC, provided there has been no indication of non-compliance given by the State of Design:

a copy of the relevant operator's written and dated request to the appropriate design authority for an SOC which indicates the matters mentioned in paragraphs 3 (d) and (e).

Note Allocation requirements for RCP 240 and RSP 180 specifications are as defined in ICAO Doc 9869, *Performance-based Communication and Surveillance (PBCS) Manual*.

- 5 Subject to clause 6, where the aircraft is operated in accordance with an MEL, the information relevant to RCP 240 and RSP 180 capabilities must be included in the MEL.
- 6 If an MEL that includes the information relevant to RCP 240 and RSP 180 capabilities (a **revised MEL**) is not available, the following may act as a temporary substitute pending the formal issue of the revised MEL:
 - a copy of the relevant operator's written and dated request to the appropriate authority for the information relevant to RCP 240 and RSP 180 capabilities to be included in the MEL.

Communication service provider agreement

- 7 The agreement between the aircraft operator and the CSP must include the following terms and conditions:
 - (a) that there is adequate subnetwork coverage in the route flown;
 - (b) that there is to be notification of coverage and performance failures;
 - (c) that there is to be recording of datalink messages for 30 days;
 - (d) that datalink messages mentioned in paragraph (c) will be available on written request by:
 - (i) CASA; or
 - (ii) the national aviation authority to whom the declaration is made;
 - (e) that datalink messages will not be manipulated or altered;
 - (f) that network-allocated requirements for the RCP 240 and RSP 180 specification are met according to the definitions contained in ICAO Doc 9869, *Performance-based Communication and Surveillance (PBCS) Manual*.
- 8 If the agreement between the aircraft operator and the CSP does not include the terms and conditions mentioned in clause 7, the following may act as a temporary substitute pending the formal issue of an agreement that does include the terms and conditions (a **revised agreement**):
 - a copy of the relevant operator's written and dated request to the appropriate CSP for a revised agreement.

Training of personnel

- 9 Each member of the flight crew of a relevant aircraft must have appropriate knowledge of the following:
 - (a) the PBCS concept;
 - (b) the definitions of RCP and RSP specifications, and the timing expectations to which they give rise in terms of RCP PORT;
 - (c) the entering of RCP and RSP descriptors in the flight plan;

- (d) applicable ATC procedures for dealing with the following during flight:
 - (i) datalink failures;
 - (ii) non-compliance with prescribed RCP and RSP specifications.
- 10 The aircraft operator must ensure that its relevant personnel have appropriate knowledge of the RCP and RSP specifications consistent with the intended operation.

Note The following may be used by an aircraft operator in the development of training materials:

 - (a) FAA Advisory Circular 90-117 — Data Link Communications;
 - (b) FAA Advisory Circular 20-140C — Guidelines for Design Approval of Aircraft Data Link Communication Systems Supporting Air Traffic Services (ATS);
 - (c) FAA Advisory Circular (AC) 91-70B — Oceanic and Remote Continental Airspace Operations;
 - (d) ICAO Annex 6 — Operation of Aircraft, Parts I and II;
 - (e) ICAO Annex 11 — Air Traffic Services;
 - (f) ICAO Doc 4444 – Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM);
 - (g) ICAO Doc 9869 — *Performance-based Communication and Surveillance (PBCS) Manual*;
 - (h) ICAO Doc 7030 — *Regional Supplementary Procedures*.

Operations manual

- 11 The aircraft operator's operations manual must contain appropriate procedures for the purposes of ensuring that the requirements of this instrument are met.
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