

**CAA Decision to amend AMC and GM for UK Reg (EU) No 923/2012
pursuant to Article 76(3) UK Reg (EU) 2018/1139**

DECISION No. 10

Publication date: 13 January 2022

Decision introducing Acceptable Means of Compliance (AMC) and Guidance Material (GM) for UK Reg (EU) No 923/2012 Standardised European Rules of the Air (SERA) regarding Section 6 Airspace Classification and Section 14 Voice Communication Procedures

Background

1. Regulation (EU) No 923/2012 as retained (and amended in UK domestic law) under the European Union (Withdrawal) Act 2018 (“**UK Reg (EU) No 923/2012**”) lays down the common rules of the air and operational provisions regarding services and procedures in air navigation services. The Annex to UK Reg (EU) No 923/2012 contains and is referred to as the UK Standardised European Rules of the Air (“**UK SERA**”).
2. SERA.6005 (contained within Section 6 of UK SERA) details rules pertaining to radio mandatory zones (“**RMZ**”) and transponder mandatory zones (“**TMZ**”). However, on its adoption into law in 2012, SERA.6005 was not accompanied by acceptable means of compliance (“**AMC**”) and guidance material (“**GM**”) to inform the establishment, design and operation of RMZ and TMZ. In 2014, the CAA developed and published airspace policy on RMZ and TMZ to address this. Following review and consultation with the National Air Traffic Management Advisory Committee, the CAA has decided to adopt amended content from this CAA airspace policy as AMC and GM in respect of UK Reg (EU) No 923/2012.
3. Appendix 1 to AMC1 SERA.14001 (contained within Section 14 of the Annex to UK Reg (EU) No 923/2012) details the standardised radiotelephony phraseology that shall be used. Whilst SERA.6005(a)(2) describes the elements of the initial call that shall be made by pilots before entering a RMZ, these elements were omitted by the European Union Aviation Safety Agency from Appendix 1 to AMC1 SERA.14001. Moreover, as the concepts to modernise UK airspace and air traffic services arrangements gain maturity, we have identified the importance of pilots advising air traffic services providers of the flight rules under which their flights are operated. The CAA has decided to address these issues through an amendment to Appendix 1 to AMC1 SERA.14001.

Decision

1. The CAA, under Article 76(3) of Regulation (EU) 2018/1139 as retained (and amended in UK domestic law) under the European Union (Withdrawal) Act 2018, has decided to adopt the AMC and GM attached at Schedule 1.
2. The new AMC and GM in Schedule 1 address the absence of provisions within SERA and provide direction and guidance to industry on the operation of RMZ and TMZ.
3. This Decision will remain in force unless revoked or amended by the CAA.
4. The AMC and GM attached at Schedule 1 to this Decision come into force on 24 March 2022.

Definitions

All references to UK Reg (EU) No 923/2012 are to the UK law bearing that title or number, being EU retained law as retained (and amended in UK domestic law) pursuant to the European Union (Withdrawal) Act 2018.



Rob Bishton
For the Civil Aviation Authority and the United Kingdom

Date of Decision: 13 January 2022

Date of Decision Coming into force: 24 March 2022

Schedule 1

Includes the Acceptable Means of Compliance (AMC) and Guidance Material (GM) documents referenced below.

The text of the amendment is arranged to show deleted text, new or amended text as shown below:

- (a) ~~Text to be deleted is shown struck through;~~
- (b) New text is highlighted in grey;
- (c) ~~Text to be deleted is shown struck through~~ followed by the replacement text which is highlighted in grey.

AMC and GM to SERA.6005 Requirements for communications and SSR transponder

GM1 SERA.6005 Requirements for communication and SSR transponder

OBJECTIVE OF RADIO AND TRANSPONDER MANDATORY ZONES

- (a) The objective of a radio mandatory zone (RMZ) and a transponder mandatory zone (TMZ) is to enhance the conspicuity of aircraft operating within, or in the vicinity of, complex, or otherwise busy airspace when the establishment of a more restrictive classification of airspace is not warranted, in order to maintain a balance between safe, efficient operations and fair, equitable access for all airspace users. Enhanced conspicuity can enable, as appropriate:
 - (1) airborne collision warning and/or avoidance systems;
 - (2) a 'known' or 'recognised' air traffic environment which, in turn, permits ATS to provide more specific traffic information on collision hazards; and,
 - (3) ground-based safety nets such as short-term conflict alert (STCA) and minimum safe altitude warning (MSAW).
- (b) In addition, a RMZ may also be notified to facilitate:
 - (1) the provision of flight information, alerting and search and rescue services; or,
 - (2) coordination with appropriate military units or with ATS units in adjacent States in order to avoid the possible need for interception for the purpose of identification.

GM2 to SERA.6005 Requirements for communication and SSR transponder

RADIO AND TRANSPONDER MANDATORY ZONES – UNMANNED AIRCRAFT

Air Navigation Order (ANO) 2016 Article 23 describes exceptions from application of provisions of the Order for certain classes of aircraft, with paragraph (1)(c) relating to any unmanned aircraft other than those unmanned aircraft that are subject to certification.

ANO 2016 Schedule 1 defines "Unmanned aircraft subject to certification" as any unmanned aircraft forming part of an unmanned aircraft system (UAS) required to be certified under Article 40(1)(a), (b)

or (c) of Commission Delegated Regulation (EU) 2019/945 of 12 March 2019 as retained (and amended in UK domestic law) under the European Withdrawal Act 2018..

Pursuant to Article 23(1)(c) of ANO 2016 and Article 7(2) of UK Reg (EU) 2019/947, other than those unmanned aircraft that are subject to certification, unmanned aircraft are not required to comply with the requirements of a notified RMZ/TMZ unless specifically required to do so within the terms of a UAS Operational Authorisation or Light UAS Operator Certificate issued by the CAA.

GM1 to AMC1 SERA.6005 Requirements for communication and SSR transponder

DESIGN OF RADIO AND TRANSPONDER MANDATORY ZONES

The existence of a RMZ/TMZ does not confer or suggest any particular airspace classification; it adopts the background classification of the airspace that it is embedded within.

GM1 to SERA.6005(a) Requirements for communication and SSR transponder

RADIO MANDATORY ZONES

RMZ are established to enhance situational awareness and therefore flight safety within a given volume of airspace, whilst minimising the impact upon suitably qualified pilots in appropriately equipped aircraft.

GM2 to SERA.6005(a) Requirements for communication and SSR transponder

CARRIAGE OF RADIO COMMUNICATION EQUIPMENT

The requirements for carriage of radio communication equipment are detailed in the UK Air Ops Regulation (UK Reg (EU) No 965/2012) and paragraph 2(b) of the table in ANO 2016 Schedule 6 Part 2 paragraph 3. These requirements are summarised in AIP GEN 1.5 Section 5.1.2.

GM3 to SERA.6005(a) Requirements for communication and SSR transponder

ENTRY INTO A RADIO MANDATORY ZONE

- (a) Aircraft wishing to enter RMZ in class E airspace are reminded of the requirements detailed in SERA.6001(a)(5) for flight within airspace of that classification.
- (b) Pilots should be aware that the ANSP may issue a SSR Mode 3A code to an aircraft with a functioning SSR transponder.

GM1 to SERA.6005(a)(1) Requirements for communication and SSR transponder

PROVISION OF ATS WITHIN A RADIO MANDATORY ZONE

Where ATS are provided within the RMZ, in maintaining a continuous watch on the appropriate air-ground communication channel, pilots will be provided with ATS appropriate to the airspace classification and the flight rules in accordance with which the flight is being operated.

AMC1 SERA.6005(a)(1) Requirements for communication and SSR transponder

ESTABLISHING TWO-WAY RADIOCOMMUNICATIONS

- (a) Two-way radiocommunications are considered to have been achieved once the pilot has provided the information required in the initial call and has received acknowledgement from ATS.
- (b) If a pilot is instructed to "STANDBY" following their initial call, two-way radiocommunications have not been achieved and the pilot should remain outside the RMZ until their initial call has been acknowledged by the ANSP.

AMC2 SERA.6005(a)(1) Requirements for communication and SSR transponder

AIRCRAFT UNABLE TO COMPLY WITH THE REQUIREMENTS FOR ENTRY INTO A RADIO MANDATORY ZONE

- (a) Where aircraft are based at aerodromes or operating sites located within a RMZ and radio communications are not possible either prior to getting airborne, or at all, pilots of such flights should:
 - (1) seek to agree letters of agreement with the ANSP describing alternative provisions for compliance; and,
 - (2) establish two-way radio communications (where appropriate) at the earliest opportunity after take-off.Acting in accordance with the provisions of such letters of agreement will be considered to constitute acting in compliance with SERA 6005(a)(1).
- (b) ANSPs may permit aircraft to operate in a RMZ without the required radio communication equipment. Pilots should adhere to the procedures and conditions promulgated for the specific RMZ in the relevant aeronautical information publications by the ANSP (in circumstances other than sub-paragraph (a) above).

GM1 to AMC1 SERA.6005(a)(1) Requirements for communication and SSR transponder

AIRCRAFT UNABLE TO COMPLY WITH THE REQUIREMENTS FOR ENTRY INTO A RADIO MANDATORY ZONE

Letters of Agreement should include a clear and unambiguous set of procedures to ensure the safety of flight within the RMZ and should be reviewed regularly, and at least triennially, except where analysis of air safety incidents indicates a need to undertake an immediate review.

GM2 to AMC1 SERA.6005(a)(1) Requirements for communication and SSR transponder

AIRCRAFT UNABLE TO COMPLY WITH THE REQUIREMENTS FOR ENTRY INTO A RADIO MANDATORY ZONE

Access to the RMZ for aircraft with no or non-functioning radio equipment is subject to the conditions prevailing at the time of the request. Such conditions include but are not limited to the types and density of air traffic operating or planned to operate within the RMZ and the actual or forecast meteorological conditions. Pilots are reminded to anticipate that they may not receive approval from the ANSP and plan their flight accordingly.

AMC1 SERA.6005(a)(2) Requirements for communication and SSR transponder

ENTRY INTO A RADIO MANDATORY ZONE

In addition to those elements of the initial call described in SERA.6005(a)(2), pilots should report their flight rules and any other information as prescribed by the ANSP and published within the Aeronautical Information Publication (AIP).

GM1 to AMC1 SERA.6005(a)(2) Requirements for communication and SSR transponder

ENTRY INTO A RADIO MANDATORY ZONE

Radiotelephony phraseology relating to RMZ is detailed within AMC1 SERA.14001 Paragraph 7 and the Radiotelephony Manual (CAP 413) Chapter 9 Paragraph 9.49).

GM1 SERA.6005(a)(2) Requirements for communication and SSR transponder

ENTRY INTO A RADIO MANDATORY ZONE

Whenever practicable, pilots should seek to establish two-way communications with the ANSP when 15 NM or 5 minutes flying time from the RMZ boundary, whichever is the greater.

GM1 SERA.6005(b) Requirements for communication and SSR transponder

TRANSPONDER MANDATORY ZONE

A TMZ is established for overriding safety reasons where the airspace classification would not normally require the carriage of a transponder but where a change to a more restrictive classification of controlled airspace is not warranted. A TMZ creates a 'recognised air traffic environment' within which ATS, where provided, are more able to provide enhanced levels of safety to aircraft and can enable the operation of airborne and ground-based safety nets. The existence of a TMZ does not confer or suggest any particular airspace classification.

GM2 to SERA.6005(b) Requirements for communication and SSR transponder

CARRIAGE OF RADIO NAVIGATION EQUIPMENT

- (a) The requirements for carriage of radio navigation equipment are detailed in UK Reg (EU) No 1207/2011 and Paragraphs (4)(d) and (5)(b) of the table in ANO 2016 Schedule 6 Part 2 (Scale E2 refers). These requirements are summarised in AIP GEN 1.5 Section 5.3.1.3.
- (b) These highlight the requirement for flights operating in airspace designated by the CAA as a TMZ to carry and operate SSR Mode S Elementary Surveillance transponders, unless in compliance with alternative provisions prescribed for that particular airspace by the air navigation service provider (ANSP). Such alternative provisions may include the use of alternate forms of electronic conspicuity data, such as ADS-B, and that satisfies the pressure altitude reporting requirement for a TMZ, where their use has been addressed within the airspace change safety assessment.
- (c) AIP GEN 1.5 5.3.5.2 highlights that, in exceptional circumstances, an application for an exemption from the SSR Mode S Elementary Surveillance transponder requirement may be made.

GM1 to SERA.6005(b)(1) Requirements for communication and SSR transponder

ENTRY INTO A TRANSPONDER MANDATORY ZONE

- (a) Aircraft carrying and operating serviceable SSR Mode S Elementary Surveillance transponders or alternative forms of electronic conspicuity which meet the notified criteria may enter and transit a TMZ in class G airspace and are not required to satisfy additional entry conditions.
- (b) Aircraft wishing to enter TMZ in class E airspace are, additionally, required to comply with the requirements for flight within airspace of that classification.

AMC1 SERA.6005(b)(1) Requirements for communication and SSR transponder

AIRCRAFT UNABLE TO COMPLY WITH THE REQUIREMENTS FOR ENTRY INTO A TRANSPONDER MANDATORY ZONE

Where aircraft are based at aerodromes or operating sites located within a TMZ and are unable to comply with the notified requirements for flight in a TMZ, pilots of such flights should seek to agree letters of agreement with the ANSP describing alternative provisions for compliance. Acting in accordance with the provisions of the letter of agreement will be considered to constitute acting in compliance with SERA 6005(b)(1).

GM1 to AMC1 SERA.6005(b)(1) Requirements for communication and SSR transponder

AIRCRAFT UNABLE TO COMPLY WITH THE REQUIREMENTS FOR ENTRY INTO A TRANSPONDER MANDATORY ZONE

Letters of Agreement should include a clear and unambiguous set of procedures to ensure the safety of flight within the TMZ and be reviewed regularly, and at least triennially, except where analysis of air safety incidents indicates a need to undertake an immediate review.

GM2 to AMC1 SERA.6005(b)(1) Requirements for communication and SSR transponder

AIRCRAFT UNABLE TO COMPLY WITH THE REQUIREMENTS FOR ENTRY INTO A TRANSPONDER MANDATORY ZONE

Access to TMZ for aircraft that are unable to comply with the notified requirements for entry into a TMZ (see point (a) of GM2 to SERA.6005(b)) is subject to the conditions prevailing at the time of the request. Such conditions include but are not limited to the types and density of air traffic operating or planned to operate within the TMZ, and the actual or forecast meteorological conditions. Pilots of

such aircraft are reminded to anticipate that they may not receive approval from the ANSP and should plan their flight accordingly.

AMC1 SERA.6005(c) Requirements for communication and SSR transponder

PROMULGATION OF RMZ AND TMZ IN AERONAUTICAL INFORMATION PUBLICATIONS

- (a) For the purpose of ANO 2016 Schedule 5 Articles 15 and 17 respectively, RMZs and TMZs should be notified as follows:
- (1) UK AIP:
 - (i) AIP ENR 2.2 Other Regulated Airspace;
 - (ii) AD 2.17 ATS Airspace (for RMZs/TMZs serving aerodromes); and
 - (iii) AIP ENR and AD charts as appropriate.
 - (2) Aeronautical Chart ICAO 1:500 000, Topographical Air Chart of the UK 1:250 000 and 1:50 000 VFR charts.
- (b) Establishment of a RMZ or TMZ should be supported by appropriate awareness materials which could include an associated NOTAM and Aeronautical Information Circular as appropriate.

Amendment to Appendix 1 to AMC1 SERA.14001

7. RADIO MANDATORY ZONE (RMZ)

7.1 RMZ
Initial call before entry

*a) (aircraft call sign), (type of aircraft), (position), (level), IFR (or VFR), (intentions), (other information).
 b) (aircraft call sign) ROGER.
 Note.— Once the pilot's initial call has been acknowledged by ATS, they may enter the RMZ.
 c) (aircraft call sign) STANDBY.
 Note.— Where a pilot is instructed to "STANDBY" following their initial call, they should remain outside the RMZ until their initial call has been acknowledged by ATS.
 '**' denotes pilot transmission.