14 August 2015

Policy Statement

POLICY FOR RADIO MANDATORY ZONES AND TRANSPONDER MANDATORY ZONES

References:

A. **Transport Act 2000**.

B. Commission Implementing **Regulation (EU) No. 923/2012** of 26 September 2012, (Standardised European Rules of the Air (SERA)).

C. **CAP 724** 'Airspace Charter'.

D. **CAP 725** 'CAA Guidance on the Application of the Airspace Change Process'.

E. The **Air Navigation Order 2009**.

1 Introduction

1.1 This document details the policy and guidance for the establishment and operations within Radio and Transponder Mandatory Zones (RMZs/TMZs).

1.2 The CAA's statutory obligations within reference A include the need to 'satisfy the requirements of all airspace users', and to 'secure the most efficient use of airspace consistent with the safe operation of aircraft and expeditious flow of air traffic'[1]. This has enabled the principle that the least restrictive categorisation of airspace should be the norm in UK airspace design, with more restrictive classifications only being established where necessary when the safety need is clearly demonstrated.

1.3 Where additional measures to enhance flight safety are required, but the establishment of a more restrictive classification of airspace is not warranted, proportionate measures are necessary. Such measures include the establishment of either an RMZ or a TMZ. The creation of an RMZ/TMZ allows the airspace to retain its original classification, yet also allows for enhanced situational awareness for all users and for ATC. This therefore increases safety for all aircraft flying in that block of airspace while imposing minimal additional restrictions.

[1] Transport Act 2000 Section 70(1)

2 Definitions

2.1 Reference B[2] defines RMZs and TMZs as follows:

a) An RMZ is airspace of defined dimensions wherein the carriage and operation of suitable/appropriate radio equipment is mandatory.

b) A TMZ is airspace of defined dimensions wherein the carriage and operation of pressure-altitude reporting transponders is mandatory.

3 Purpose of RMZ/TMZ

3.1 All airspace users should have reasonable and safe access to airspace. RMZs and TMZs are utilised to enhance the conspicuity of aircraft operating within or in the vicinity of complex or busy airspace for the safety of all members of the flying communities. They are to be established for overriding safety reasons in accordance with the Airspace Change Process detailed in references C and D. This is to include consultation with relevant aviation stakeholders, the needs of which must be established and taken into account. The resultant RMZ or TMZ should be of minimum practical dimensions to meet the safety requirements.

3.2 Provisions should be made for non-compliant aircraft to gain access to an RMZ or TMZ where legitimate requirement exists. Article 41(3) of reference E states that the CAA may permit an aircraft or class of aircraft to commence a flight in specified circumstances even though mandated equipment for the intended flight is not carried or is not in a fit condition for use.

3.3 The Controlling Authority of a notified RMZ or TMZ should have sufficient resource in place to guarantee full compliance in respect to airspace management arrangements, for example, suitable Air Traffic Service provision for the duration of RMZ or TMZ activation.

4 Notification of RMZs and TMZs

4.1 Establishment of RMZs and TMZs will be supported by an associated NOTAM and Aeronautical Information Circular (AIC).

4.2 For the purpose of the table in Schedule 5 of reference E, RMZ/TMZ shall be notified in the UK Aeronautical Information Publication (AIP) as follows:

a) GEN 1.4

b) GEN 1.5 (and referenced to either a specific aerodrome/Controlling Authority)

c) ENR 2.2. - For less specific ‘en-route’ RMZ/TMZ (e.g. offshore wind farms)

d) ENR 6 (as appropriate)

e) AD 2.17 (Aerodromes)

f) AD 2.22 (Procedures)

4.3 RMZs and TMZs shall also be depicted on VFR Charts.

[2]SERA Article 2

5 RMZs

5.1 Schedule 5 of reference E requires the carriage of radio communication equipment in notified airspace[3]. This equipment must be capable of maintaining direct two-way communication with ATC on the notified frequency.

5.2 The requirements for communications within an RMZ are detailed in reference B[4] as follows:

a) Visual Flight Rules (VFR) flights operating in parts of Classes E, F or G airspace and Instrument Flight Rules (IFR) flights operating in parts of Classes F or G airspace designated as an RMZ by the competent authority shall establish two-way communication before entering the dimensions of the RMZ. Before entering an RMZ, an initial call containing the designation of the station being called, call sign, type of aircraft, position, level, the intentions of the flight and other information as prescribed by the competent authority shall be made by pilots on the appropriate communication channel. And;

b) The pilot shall maintain continuous air-ground voice communication watch, on the appropriate communication channel, unless in compliance with alternative provisions prescribed for that particular airspace by the Controlling Authority.

c) A pilot wishing to operate in an RMZ without the necessary radio communication equipment may be able to do so in accordance with conditions promulgated for the specific RMZ, or in accordance with agreed tactical arrangements with the RMZ Controlling Authority.

5.3 Guidance for pilots operating in RMZs, including examples of associated radiotelephony and alternative provisions, is contained in **Annex A**.

6 TMZs

6.1 Schedule 5 of reference E requires the carriage of radio navigation equipment in notified airspace[3]. This pressure-altitude reporting transponder must be capable of operating in Modes A and C, and have the capability and functionality prescribed for Mode S.6.2. The requirements for transponders within a TMZ are detailed in reference B as follows[5]:

a) All flights operating in airspace designated by the competent authority as a TMZ shall carry and operate Secondary Surveillance Radar (SSR) transponders capable of operating on Modes A and C or on Mode S, unless in compliance with alternative provisions prescribed for that particular airspace by the Air Navigation Service Provider (ANSP). And;

b) A pilot wishing to operate in a TMZ without serviceable transponder equipment may be granted access subject to specific arrangements agreed with the TMZ Controlling Authority.

[3] Paragraph 2(b) of the Table in Schedule 5.
[4] SERA.6005 (a) (1) & (2).
[5] SERA.6005 (b) (1).

6.3 Guidance for pilots operating in TMZs, including examples of radiotelephony and alternate provisions, is contained in **Annex B**.

7 Enquiries

7.1 Enquiries concerning RMZ/TMZ policy issues may be addressed to the CAA at **ats.enquiries@caa.co.uk**.

Annex A Guidance for Operations in Radio Mandatory Zones (RMZs)

1 Introduction

1.1 An RMZ is established to enhance situational awareness and therefore flight safety within a given airspace, whilst having minimal impact upon aircraft operations. Entry into an RMZ should be straightforward and non-restrictive to the overwhelming majority of pilots. RMZ status does not automatically confer or suggest airspace classification change.

2 Requirements for Entry into an RMZ

2.1 Aircraft seeking entry into an RMZ are to call, in a timely manner and with minimum delay, the RMZ Controlling Authority, alerting them to their presence and intentions, prior to entry.

2.2 The requirements for entry into an RMZ are detailed in SERA.6005 (a) as follows:

Before entering a radio mandatory zone, an initial call containing:

a) the designation of the station being called;

b) callsign;

c) type of aircraft;

d) position;

e) level;

f) the intentions of the flight; And;

g) Other information as prescribed by the competent authority shall be made by pilots on the appropriate communication channel.

2.3 Once this information has been passed to and acknowledged by ATC, a pilot may enter the RMZ. However, if a pilot is requested to ‘stand by’ before the required information is passed; they must remain outside of the RMZ. RMZ Controlling Authorities are required to resume communications with pilots as soon as possible after having instructed them to ‘stand by’.

2.4 Whilst operating within an RMZ pilots are required to continuously monitor the published frequency. This is to raise situational awareness for all, and offers a means of communication between pilot and ATC if required.

2.5 The RMZ Controlling Authority may additionally instruct an aircraft with a functioning transponder to squawk an appropriate code.

3 Non-Radio Aircraft

3.1 The pilot of an aircraft that wishes to operate in an RMZ without the necessary radio equipment is to do so in accordance with any alternative provisions promulgated for that RMZ or agreed with the Controlling Authority. This may typically require the pilot to contact the RMZ Controlling Authority prior to departing, stating the route information detailed above and estimated RMZ exit and entry times.

3.2 Prevailing traffic conditions may preclude RMZ Controlling Authority approval to non-radio aircraft (or an aircraft with a non-functioning radio) to operate within an RMZ.

4 Flights Originating in an RMZ

4.1 It will be necessary for pilots of radio-equipped aircraft originating in an RMZ where radio communications are not possible prior to take-off (and non-radio aircraft in all circumstances) to agree appropriate procedures with the RMZ Controlling Authority to enable flight within the RMZ. Compliance with the agreed procedures (published as a Letter of Agreement or Memorandum of Understanding) will be required and two-way communications established where appropriate at the earliest opportunity after take-off.

4.2 Ad hoc flights originating in an RMZ where radio communications are not possible shall make prior arrangements with the Controlling Authority and adhere to the agreed procedures.

Appendix 1 to Annex A RMZ Entry Radiotelephony Examples

Example 1: Establishing Contact with ATC

	Newtown Radar, GABCD, request Basic Service		GABCD, Newtown Radar
			GCD, C152 from Castle Hill to Woodend, at Mountpleasant, altitude 2,400 ft Newtown QNH, VFR tracking to Green Fields

(*GABCD may enter the RMZ)*

	GCD, Roger

Example 2: Establishing Contact with ATC

	Newtown Radar, GABCD, request Basic Service		GABCD, Newtown Radar
			GCD, C152 from Castle Hill to Woodend, at Mountpleasant, altitude 2,400 ft Newtown QNH, VFR tracking to Green Fields

(*GABCD may enter the RMZ)*

	GCD, roger, squawk 1234, Basic Service, report passing west abeam Burnside

Example 3: Establishing late contact with ATC and asked to 'Standby'

	Newtown Radar, GABCD, request Basic Service		GABCD, Newtown Radar, Standby

(GABCD must remain outside of the RMZ)

	GCD, Newtown Radar, pass your message
	GCD, C152 from Castle Hill to Woodend, at Mountpleasant, altitude 2,400 ft Newtown QNH, VFR tracking to Green Fields

(GABCD may enter the RMZ)

	GCD, roger, Squawk 1234, Basic Service, report passing west abeam Burnside

Annex B Guidance for Operations in Transponder Mandatory Zones (TMZs)

1 Introduction

1.1 A TMZ is established for 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 airspace is not warranted. A TMZ creates an environment within which ATC are more able to provide enhanced levels of safety through improving traffic information to aircraft.

2 Requirements for Entry into a TMZ

2.1 Aircraft operating serviceable transponders may operate with a TMZ.

3 Non-Transponder Aircraft

3.1 An aircraft flying within a TMZ without a serviceable transponder is to be flown in accordance with any alternative provisions promulgated for that TMZ or agreed with the Controlling Authority. Prior to entry a pilot must communicate their requirement to the Controlling Authority, alerting them to their presence and intentions, and obtain specific agreement to operate within the TMZ.

3.2 Pilots of aircraft which are neither non-transponder nor non-radio equipped must contact the Controlling Authority by the most appropriate means in order to seek Controlling Authority agreement to operate within the TMZ.

3.3 Prevailing traffic conditions may preclude TMZ Controlling Authority agreement to non-transponder aircraft (or an aircraft with a non-functioning transponder) to operate within a TMZ.

4 Flights Originating in the TMZ

4.1 3.1, 3.2 and 3.3 above equally apply to all flights without a serviceable transponder which originate within the confines of the TMZ.

Appendix 1 to Annex B TMZ Entry Radiotelephony Example

Example 1: Non-transponder aircraft requesting to enter the TMZ

	Newtown Radar, GABCD, request Basic Service		GABCD, Newtown Radar
			GCD, C152 from Castle Hill to Woodend, at Mountpleasant, altitude 2,400 ft Newtown QNH, VFR tracking to Green Fields, request enter the TMZ, I am not SSR equipped

(GABCD must remain outside of the TMZ until ATS has agreed entry)

	GCD, Basic Service, TMZ entry approved, report passing west abeam Burnside

(GABCD may enter the TMZ)