

Supplementary Instruction (SI)

CAP 493 MATS Part 1

Safety and Airspace Regulation Group
Airspace, ATM and Aerodromes



Number: 2021/04

Issued: 26 January 2022

Version: 2

Effective: 27 January 2022

Operating at the lower or upper limit of controlled airspace

1. Introduction

- 1.1 The purpose of this Supplementary Instruction (SI) is to detail changes made to the Manual of Air Traffic Services (MATS) Part 1 (CAP 493) relating to aircraft operating at the lower or upper limit of controlled airspace.
- 1.2 This SI is re-issued as version 2. Please review the revision history section for further details.

2. Background

- 2.1 In the past, it was UK policy that, for a given volume of airspace, the requirements of the airspace classification were assigned to the lower and upper limits of a control area, including airways. This meant that IFR or VFR flights that intended to operate on the base of a class A, C or D airway, or an IFR flight that intended to operate on the base of a class E airway, were required to file a flight plan and obtain an ATC clearance. The exception to this was documented within ENR 1.1 sections 1.6.1.5.1 and 1.6.1.6.1.1 which enabled pilots to cross the base of an airway where it is defined as a flight level, at right angles in VMC.
- 2.2 This exception was particularly useful when quadrantal levels were used by pilots of IFR flights in uncontrolled airspace because the base of such airways is normally defined as flight level plus 500 feet, (eg. FL 55, FL 65, FL 75, FL 85 etc). However, with the introduction of Standardised European Rules of the Air (SERA) in 2014, crossing the lower limit of an airway at such a level in accordance with IFR in level cruise flight was not compatible with SERA.5025(a).
- 2.3 In addition, with the introduction of AMC1 SERA.6001, the lower limit of a control area, including an airway, and the upper limit of a control zone or control area, adopts the airspace requirements of adjoining airspace where the adjoining airspace is of a lower airspace classification. This means that flights operating in class G airspace can operate at the lower limit of a control area, including an airway, or at the upper limit of a control zone or area, in any direction without filing a flight plan, obtaining an air traffic control clearance or receiving an air traffic service.
- 2.4 AIC Y 102/2021 has been produced to remind pilots of the risk of infringing controlled airspace when operating at the lower or upper limit of controlled airspace, and the risk of wake turbulence encounters when operating at or beneath the lower limit of a control area. This AIC and associated AIP amendments will be published in AIRAC 01/2022, which will be published on 17 December 2021 and effective on 27 January 2022.
- 2.5 The changes to the MATS Pt 1 within appendix A complement SERA and the associated changes being implemented within the UK AIP.

3. Revision history

3.1 Changes from version 1 of this SI include:

(1) Section 1, chapter 7, paragraph 9.1:

Following industry feedback detailing several implementation issues, the changes to this paragraph have been withdrawn from this SI. Please review SI 2022/03 for further details.

4. Revised MATS Part 1 Procedures

4.1 With effect from 27 January 2022, the Manual of Air Traffic Services (CAP493) is amended as shown at Appendix A. This change will be incorporated into CAP 493 at the next amendment.

5. Queries

5.1 Any queries or further guidance required on the content of this SI should be addressed to:

ATS Enquiries
Airspace, ATM & Aerodromes
Civil Aviation Authority
Safety and Airspace Regulation Group
Beehive Ringroad
Crawley
West Sussex
RH6 0YR

E-mail: ats.enquiries@caa.co.uk

5.2 Any queries relating to the availability of this SI should be addressed to:

ATS Documents
Safety and Business Delivery
Civil Aviation Authority
Safety and Airspace Regulation Group
Beehive Ringroad
Crawley
West Sussex
RH6 0YR

E-mail: ats.documents@caa.co.uk

6. Cancellation

6.1 This SI shall remain in force until incorporated into CAP 493 or is cancelled, suspended or amended.

Appendix A

Section 1, Chapter 2

2. Classification of Airspace

2.3 Where volumes of airspace adjoin vertically (i.e. one above the other) flights at a common level should comply with the requirements of, and be provided with air traffic services applicable to, the less restrictive class of airspace (AMC1 SERA.6001).

2.4 Where controlled airspace is adjoined vertically by Class G airspace, aircraft may operate at the lower limit of control areas (including TMAs and airways), or at the upper limit of a control zone or control area (including TMAs) and are deemed to be operating outside controlled airspace. Pilot operating at these levels and in communication with an air traffic control unit shall be provided with UK Flight Information Services in accordance with CAP 774. Controllers providing an ATS to such flights should, as necessary, include a wake turbulence caution when providing traffic information on controlled flights operating at the lowest available level. Associated phraseology is found in CAP 413, chapter 9, paragraph 9.2.

2.5 With the exception of VFR flights operating into or out of Class E airspace and complying with any applicable TMZ requirement, flights without an ATC clearance and observed to be operating:

- immediately above the lower limit of a control area (including a TMA or airway); or
- immediately below the upper limit of a control zone or control area (including a TMA),

are to be considered an infringement of controlled airspace, see table 2 below.

Note: The risks of infringing controlled airspace when operating in class G airspace at the lower or upper limit of controlled airspace and encountering wake turbulence generated by aircraft operating at the lowest available level within a control area are detailed for airspace users within the UK AIP at ENR 1.

Table 2: Airspace Infringement and MOR action

<u>Mode C / Mode S altitude report (whether verified or not)</u>	<u>Infringement (see notes 1 & 2)</u>	<u>MOR Required</u>
<u>Mode C / Mode S altitude reports indicates the aircraft is either:</u> <u>(i) at or below the lower limit of controlled airspace; or</u> <u>(ii) at or above the upper limit of</u>	<u>No</u>	<u>No</u>

<u>controlled airspace.</u>		
<u>Mode C altitude reports indicates the aircraft is either:</u> (i) <u>100 ft or more above the lower limit of controlled airspace; or</u> (ii) <u>100 ft or more below the upper limit of controlled airspace.</u> <u>Or</u> <u>Mode S altitude reporting indicates the aircraft is:</u> (iii) <u>Any level above the lower limit of controlled airspace; or</u> (iv) <u>Any level below the upper limit of controlled airspace.</u>	<u>Yes</u>	<u>Yes</u>

Note 1: When considering whether an infringement of controlled airspace has occurred, controllers are not to consider aircraft total vertical error (TVE) and errors introduced by ATS surveillance systems in transmitting and processing SSR Mode C/Mode S altitude data.

Note 2: Controllers should take into account in their RT exchanges with pilots that the level displayed on the aircraft's altimeter might not be exactly the same as that displayed to the controller on ATS surveillance systems when the appropriate barometric pressure has been correctly set.

Section 4, Chapter 2

9. Aircraft Crossing and Joining

9.6 No clearance is required for an aircraft to operate at the lower limit of controlled airspace (AMC1 SERA.6001). However, pilots of such flights are encouraged to obtain an appropriate ATS from the controlling authority, see section 1, chapter 2, paragraph 2.4.