

October 2023

Policy Statement

PROVISION AND SUPPORT OF EMERGENCY CHANNEL 121.500 MHz FOR THE PURPOSES OF SUPPLYING AN EMERGENCY AID AND POSITION FIXING SERVICE

1 Introduction

- 1.1 Article 60 of the Civil Aviation Act 1982 provides the power to give effect to the Chicago Convention within the UK. The CAA (Chicago Convention) Directions 2022 then require the CAA to “develop and publish such requirements as are necessary to implement the [*International Civil Aviation Organisation*] ICAO provision” except where “the CAA considers it impracticable or inappropriate to transpose an ICAO provision”. In that instance, the Directions require the CAA to “inform and consult the Secretary of State prior to notifying any Difference” to ICAO Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS).
- 1.2 The purpose of this Policy Statement is to describe the UK’s implementation of ICAO provisions relating to the emergency very high frequency (VHF) channel, 121.500 MHz, as sourced from:
- ICAO Annex 10 Vol II
 - ICAO Annex 10 Vol V
 - ICAO Annex 11.
- 1.3 This policy statement supersedes that of the same name published on 5 June 2013.
- 1.4 References to EU regulations in this Policy Statement are to those regulations as retained and amended in UK domestic law under the European Union (Withdrawal) Act 2018.

2 Background

- 2.1 The frequency 121.500 MHz is designated as the emergency channel for aviation as defined in Annex 10 Volume V to the ICAO Convention on International Civil Aviation.
- 2.2 Annex 10 Volume V, 4.1.3.1.1 states that the emergency channel (121.500 MHz) shall only be used for genuine emergency purposes and provides a list of functions for which the emergency channel may be used.
- 2.3 Annex 10 Volume V, 4.1.3.1.2 and 4.1.3.1.4 specify that 121.500 MHz is to be provided and guarded during operational hours in all area control centres, flight information centres, aerodrome control towers and approach control offices serving international aerodromes and international alternate aerodromes, and any additional locations designated by the appropriate Air Traffic Service (ATS) authority.
- 2.4 In implementing the ICAO standards relating to the emergency channel, the UK has notified five Significant Differences to ICAO, and listed these within UK AIP GEN 1.7. Three of these relate to the monitoring of the frequency, permission for pilots in UK airspace to conduct practice emergency calls on 121.500 MHz, and dispensation for aerodromes not to routinely monitor 121.500 MHz under certain circumstances and reflect a difference in the nature of the UK’s implementation. Two Differences relate to Standards on interception and guarding of the frequency that have not been implemented in the UK. The UK’s implementation of the ICAO provisions is described in the policy section below.

- 2.5 Under the Air Traffic Services licence granted to NATS (En Route) PLC by the Department for Transport (DfT), NATS is required, as the UK en-route ATS provider, to monitor and guard the 121.500 MHz emergency channel as part of the Specified Services listed in Schedule 4 of the licence. The relevant services are described as “Emergency Frequency Facility” and “Emergency Fixing Facility”.
- 2.6 Under a derogation of the NERL licence, control of the emergency channel is ceded to the MoD who deliver this capability through the Distress and Diversion (D&D) Cell based at the Swanwick Area Control Centre (ACC) where military air traffic controllers monitor and guard 121.500 MHz 24-hours per day across the London and Scottish FIRs/UIRs. The primary role of D&D is to provide assistance to aircraft in emergency and, where possible, a position fixing service.
- 2.7 The use of D&D to provide 121.500 MHz across UK airspace, including certain international aerodromes, enables the most efficient and coherent response to emergency calls. 121.500 MHz is also provided at international airports where D&D is unable to monitor to circuit altitude, and at military aerodromes, by their associated ATS units.
- 2.8 D&D can provide an instantaneous auto-triangulation fixing service to aircraft transmitting on 121.500 MHz in the London and Scottish FIRs, generally at the following levels:
- Within the London FIR at and above 3000ft amsl over land east of Wales and south of Manchester, reducing to 2000ft amsl within 40nm of Heathrow,
 - Within the Scottish FIR at and above 8500ft amsl generally, reducing to between 2000 and 5000ft over the sea and lowland areas, and
 - Unreliable service outside of these areas.

Aircraft transmitting on 121.500 MHz outside of the auto-triangulation coverage may still be assisted by the use of surveillance equipment using standard identification procedures in conjunction with any relevant information derived from the auto-triangulation system.

- 2.9 Should an ATS unit (ATSU) closer to an emergency aircraft be better placed to provide assistance, D&D may elect to delegate Operational Control to that unit. In such circumstances, D&D would retain Executive Control.

3 **Scope**

- 3.1 This policy statement sets out CAA policy on the provision of the emergency channel 121.500 MHz within the London and Scottish FIRs and UIRs.

4 **Definitions**

- 4.1 For the purposes of this policy statement, the following definitions apply:

- a) **Auto-triangulation.** A method of providing a position indication based on the intersection of bearings towards a radio transmission source detected by direction finding (DF) equipment located at two or more geographically separated sites.
- b) **Distress and Diversion (D&D).** The emergency centre of 78 Sqn RAF(U) Swanwick, embedded within the London Area Control Centre (LACC) at Swanwick.
- c) **Emergency channel.** The frequency 121.500 MHz as specified in ICAO Annex 10 Volume V 4.1.3.1 for emergency purposes.
- d) **Emergency Fixing Facility.** The making available of radiocommunications facilities to enable the identification of the position of aircraft communicating on very high frequency¹.

¹ Air Traffic Services Licence for NATS (En Route) plc, Schedule 4

- e) **Emergency Frequency Facility.** The making available of a dedicated radio communications facility operating at 121.500 MHz for the purpose of emergency air to ground to air communication².
- f) **Emergency locator transmitter (ELT).** Equipment which broadcasts distinctive signals on designated frequencies and, depending on application, may be automatically activated by impact or be manually activated.

5 Policy

5.1 Except as described in paragraph 5.2, the emergency channel 121.500 MHz shall be used only for genuine emergency purposes, as broadly outlined in the following³:

- a) to provide a clear channel between aircraft in distress or emergency and a ground station when the normal channels are being utilised for other aircraft;
- b) to provide a VHF communication channel between aircraft and aerodromes, not normally used by international air services, in case of an emergency condition arising;
- c) to provide a common VHF communication channel between aircraft, either civil or military, and between such aircraft and surface services, involved in common search and rescue operations, prior to changing when necessary to the appropriate frequency;

Note. The use of the frequency 121.500 MHz for this purpose is to be avoided if it interferes in any way with the efficient handling of distress traffic.

- d) to provide air-ground communication with aircraft when airborne equipment failure prevents the use of the regular channels;
- e) to provide a channel for the operation of emergency locator transmitters (ELTs), and for communication between survival craft and aircraft engaged in search and rescue operations;
- f) to provide a common VHF channel for communication between civil aircraft and intercepting aircraft or intercept control units and between civil or intercepting aircraft and air traffic services units in the event of interception of the civil aircraft.

5.2 Within the London and Scottish FIRs/UIRs, the emergency channel 121.500 MHz may be used for training subject to the following:

- a) The pilot must be undertaking training on the emergency channel 121.500 MHz with the Distress and Diversion (D&D) Cell.
- b) Transmissions made on the emergency channel 121.500 MHz must be limited to the extent necessary to achieve their aim, in order to reduce the impact upon aircraft in distress or emergency, other crews monitoring 121.500 MHz, and air traffic services units where 121.500 MHz is monitored.

5.3 In the UK, the ICAO standards regarding the provision of 121.500 MHz at ATS units are achieved as follows:

- a) within the London and Scottish FIRs/UIRs at and above 3000ft amsl, and within the lateral limits of the London TMA at and above 2000ft amsl, by the Distress and Diversion Cell (D&D); and

² Air Traffic Services Licence for NATS (En Route) plc, Schedule 4

³ ICAO Annex 10 Vol V 4.1.3.1.1

- b) at designated international aerodromes⁴ within the greatest radiotelephony designated operational coverage (DOC) provided by the ATS unit associated with the aerodrome, except where D&D are able to monitor to circuit altitude.

5.4 The CAA has requested the MoD to provide it with a regular report on the utilisation of the emergency channel for practice emergencies and training fixes. The report will be sent on a quarterly basis and contain the date, time and duration of each event.

6 **Review of Policy**

6.1 The CAA shall review this policy statement and its associated annexes on a discretionary basis but not less than triennially from its publication date.

7 **Point of Contact**

7.1 Any queries or further guidance required on the content of this Airspace Policy Statement should be marked for the attention of Airspace & ATM Policy and sent to:
ats.enquiries@caa.co.uk

7.2 Any queries or further guidance required on the implementation of this Airspace Policy Statement should be marked for the attention of CNS&S Policy and sent to:
spectrum@caa.co.uk

⁴ [ICAO European Air Navigation Plan \(Doc 7754\) Volume 1 Part II \(AOP\) Table AOP I-1.](#)