

CAA PARACHUTISTS AERONAUTICAL RADIO STATION OPERATORS GUIDE

Foreword

The following is a guide for persons who are operating or wish to operate a parachutist's aeronautical radio station. It is based on the International Standards and Recommended Practices for Aeronautical Communications in ICAO Annex 10, Vol 2 (Communications Procedures).

SECTION 1 - COMMUNICATIONS TECHNIQUE

The procedure and phraseology in this section have been laid down with the object of ensuring uniformity in RTF communications with persons of diverse nationalities and languages.

The importance of the correct use of accurate and precise phraseology cannot be over-emphasised. It may, however, sometimes be necessary to extend or modify the phraseology but care should be taken not to confuse or prejudice basic meanings or intentions.

Speech Technique

Correct enunciation of words, spoken at a uniform rate in a voice pitched somewhat higher than normal but preserving the rhythm of ordinary conversation will do much to assist satisfactory reception of radio messages. To avoid clipped transmissions, it is important to depress the transmit switch fully before speech is commenced and to avoid releasing it before the transmission is completed. You should endeavor to use clear concise sentences and to eradicate such obvious faults as hesitation sounds, verbosity, lowering of voice, blurring of consonants, etc. This will ensure maximum efficiency and prevent irritating repetitions. Speak directly into the microphone and do not turn your head away while talking. Avoid touching the microphone with your lips, as this may introduce distortion.

Word Spelling (Phonetic) Alphabet

A Alpha	(<u>AL</u> FAH)	N November	(<u>NO VEM</u> BER)
B Bravo	(<u>BRAH</u> VOH)	O Oscar	(<u>OSS</u> CAH)
C Charlie	(<u>CHAR</u> LEE)	P Papa	(<u>PAH</u> PAH)
D Delta	(<u>DELL</u> TAH)	Q Quebec	(<u>KEH</u> BECK)
E Echo	(<u>ECK</u> OH)	R Romeo	(<u>ROW</u> ME OH)
F Foxtrot	(<u>FOKS</u> TROT)	S Sierra	(<u>SEE</u> AIR RAH)
G Golf	(<u>GOLF</u>)	T Tango	(<u>TANG</u> GO)
H Hotel	(<u>HOH</u> TELL)	U Uniform	(<u>YOU</u> NEE FORM)
I India	(<u>IN</u> DEE AH)	V Victor	(<u>VIK</u> TAH)
J Juliet	(<u>JEW</u> LEE ETT)	W Whiskey	(<u>WISS</u> KEY)
K Kilo	(<u>KEY</u> LOH)	X Xray	(<u>ECKS</u> RAY)
L Lima	(<u>LEE</u> MAH)	Y Yankee	(<u>YANG</u> KEY)
M Mike	(<u>MIKE</u>)	Z Zulu	(<u>ZOO</u> LOO)

Numerals

The phonetic representations of figures and associated words are given below.

0	<u>ZE RO</u>	5	<u>FIFE</u>
1	<u>WUN</u>	6	<u>SIX</u>
2	<u>TOO</u>	7	<u>SEVEN</u>
3	<u>TREE</u>	8	<u>AIT</u>
4	<u>FOWER</u>	9	<u>NINER</u>

Thousand	-	<u>TOU SAND</u>
Decimal	-	<u>DEY SEE MAL</u>

All numbers, except those that are whole thousands, are to be spoken by pronouncing each digit separately. Decimals will be indicated where necessary. Whole thousands shall be transmitted by pronouncing each digit in the number of thousands followed by the word TOUSAND, eg 25 000 - TWO FIFE TOUSAND.

Time

UTC and the 24 - hour clock will be used at all times.

When speaking a time value, normally only the minutes of the hour are required; each figure being pronounced separately. However, if there is any possibility of confusion the full four-figure group will be spoken.

Standard Speech Abbreviations.

Phrase	Meaning
Over	<i>My transmission is ended and I expect a response from you.</i>
Out	<i>This conversation is ended no response is expected.</i>
Stand by	<i>Wait and expect further instructions.</i>
I say again	<i>I repeat for clarity or emphasis.</i>
Correction	<i>An error has been made in this transmission. correct version is.....</i>

I have received all of your last transmission.

RTF Callsigns

The callsign of a parachutist aeronautical radio station will be the Drop Zone location name followed by the words 'drop zone'.

Thus for a Parachute Training Organisation (PTO) at say, 'Rochester Airport', the callsign would be 'Rochester Drop Zone'.

Establishment of Contact

When turning on a radio transmitter the first action is to ensure that it is set to the frequency you intend to transmit on. Before transmitting you should pause briefly to ensure that the channel is clear and where radio frequencies are shared take particular care that you will not cause harmful interference with another transmission. The first transmission in a series of transmissions should always be the callsign of the station being called.

Interference

At VHF, communication is achieved over a direct line path between the aircraft and the ground station aerials. The radio horizon, like the visual horizon, will therefore increase as the aircraft's height increases. For an aircraft flying at 3000 ft the radio horizon is 67 nautical miles, which means an aircraft transmitting at that height can be heard by any ground radio station listening on the same frequency and located within 67 nm of the aircraft position. Sharing of frequencies is often necessary.

Abbreviated procedures should not be used where the high level of radio frequency utilization enable aircraft to hear ground transmissions from two locations using the same frequency. In these circumstances care must be taken to ensure that the origin of the message is not mistaken.

The frequency for use at skydiving Drop Zones (DZs) for communication between the ground and a skydiver is 130.530 kHz.

Communication between the Drop Zone (DZ) Control and the skydiving aircraft uses a number of frequencies, depending on the DZ location. The most common frequency is 129.905 kHz.

Emergency Frequency

The frequency specifically allocated for transmission of emergency messages is 121.500 kHz. It is important that operators are aware that some hand-held transceivers default to this frequency if not locked onto another. It is important to check this when turning a transceiver on, and equally important to ensure that unnecessary transmissions are not made on this frequency.

SECTION 2 AERONAUTICAL RADIO STATION

Introduction

Aeronautical radio stations are radio stations on the surface of the Earth that transmit or receive signals for the purpose of assisting aircraft.

It should be noted that an aeronautical radio station may not be established or used unless it has been licenced by Ofcom. The conditions of that licence must be observed in addition to the requirements of the service being provided.

Identification

Aeronautical radio stations must identify themselves using the callsigns allocated by CAA. Certain station callsigns comprise the location followed by a suffix to enable pilots to easily identify the type of service they are receiving. The suffixes in general use in the United Kingdom are:

.....	control	}	
.....	radar	}	Indicates that an air traffic
.....	approach	}	control service (ATC) is being
.....	tower	}	provided
.....	ground	}	

.....	Information	indicates that a flight information service is being provided (eg AFIS)
.....	Radio	indicates that an air-ground communication service (A/G) is being provided

Persons operating aeronautical radio stations must use the callsign and, where there is one, the correct suffix on any occasion that there is doubt. They must also ensure that they do not give the impression that they are providing an air traffic control or aerodrome flight information service unless they have been specifically authorised to do so.

It is an offence to use a callsign for a purpose other than that for which it has been notified.

Transmission of Messages

Radio frequencies assigned for use by aeronautical radio stations may be shared between a number of locations. It is necessary, therefore, to keep RTF transmissions as short as possible.

SECTION 3 AERODROME AIR/GROUND COMMUNICATIONS SERVICE

Introduction

An air/ground (A/G) communications service is one of three services, listed in the UK AIP AERODROME (AD volumes 1 and 2), which can be provided at aerodromes.

Identification

Radio operators must ensure that the full callsign, including the suffix 'DROP ZONE' is used.

Phraseology

A person providing an air-ground service must ensure that he/she does not pass a message that could be construed to be an air traffic control instruction.

SECTION 4 STUDENT TALK DOWN

When carrying out student talk down it is important that the students are fully briefed on the following:

1. How they will be identified.
2. What commands they should expect and how to respond to them.

Identification of Students

Students are to be clearly identified using the method briefed. This may be by name, number, colour of canopy or any other method as stated in the PTO's SOPs.

Instructions to Students

Students must be given clear instructions at all times. To help them, the correct phraseology should be used. In addition to the examples below, PTOs may also have included in their SOPs instructions specific to their operation.

Instructions should be given clearly, with a calm voice and with enough time for the students to respond correctly.

Situation	Instruction
Steering Instruction	Pull on your left or right toggle.
Steering Instruction	Let up on you left or right toggle
For landing	Stand by - flare
Landing away from target Area on/or in vicinity of active runway	Vacate runway immediately
To indicate not injured	Raise your arm if you are unhurt
To deflate canopy	Get up and run around parachute
Parachute Malfunction	Check your parachute (TO BE REPEATED UNTIL EMERGENCY PROCEDURES ARE INITIATED OR UNTIL IT IS NO LONGER SAFE TO INITIATE EMERGENCY PROCEDURES) Check Altimeter (OPTIONAL – TO FACILITATE THE ‘CUT OFF’ HEIGHT FOR A MAIN CANOPY RELEASE, IF STUDENT HAS BEEN TAUGHT SAME) <i>N.B. Student Skydivers should not be told to CUT-AWAY, except as a last resort when it is clear this would reduce risk to the Student Parachutist or others.</i>

Certificate of Competence

Application for a CAA ‘PARA’ Radio Operator’s Certificate of Competence (ROCC) should be made on British Skydiving Form 126 together with British Skydiving Forms 127a, 127b and 279 – CAA Application for ROCC (SRG 1413) to British Skydiving HQ.

A certificate will be issued if the applicant passes a practical test and written examination. No person under the age of 18 years may hold a certificate.

The application form (British Skydiving Form 126) must be signed by a Chief Instructor (CI) and a CAA authorised ‘PARA’ ROCC Examiner.

Note: *A PARA ROCC Examiner is a British Skydiving Pilot Examiner or British Skydiving Advanced Instructor who holds a valid RT licence, or a valid CAA flight crew operators licence, or a valid air traffic controller's licence, or a valid flight information service officers licence, issued after 16th May 1995, or an ATC certificate of competence issued to a member of HM Forces. Examiners must be authorised by the CAA via the British Skydiving.*

Authority to Operate

A radio operator must not operate any radio equipment unless he/she has been authorised to do so by the holder of the radio licence issued by Ofcom. The authorisation is to be entered on the reverse of the certificate of competence by the radio licence holder when he/she is satisfied that the operator fully understands the operation of the particular equipment and the messages he is required to send and receive.

When the radio operator is no longer required to operate at the station the licence should cancel the authorisation on the operator's certificate by signing and dating the expiry column of that radio station.

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