

Aeronautical Radio Station Operator's Guide

CAP 452

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Revision history

15th Edition

Effective: 30 October 2016

This edition has been reformatted. Future editions will be issued to present updated content in complete new editions. The main changes will be described here, under Revision history.

Changes in this edition include:

- Air Navigation Order: References have been updated in line with ANO 2016.
- Glossary has been updated and amended.
- References to CAA departments and contact information have been updated.
- CAP 413 references have been updated
- The pass mark for written papers has changed from 70% to 75%

Foreword

Introduction

This document is a guide for persons who operate or wish to operate aeronautical radio stations.

CAP 452, together with CAP 413 Radiotelephony Manual (www.caa.co.uk/CAP413) are the main reference documents for radio station operators who have either obtained an aeronautical Radio Operator's Certificate of Competence (ROCC) or are studying for the written and practical examinations in order to obtain one.

This document is primarily based on International Civil Aviation Organization (ICAO) Standards and Recommended Practices (SARPs) contained in the ICAO Annexes to The Convention on International Civil Aviation and the International Telecommunications Union (ITU) Radio Regulations.

Gender

In the interests of simplicity, any reference to the masculine gender can be taken to mean either male or female.

Clarity and readability

In this document the following protocol is used:

- a) The words '**must**' or '**shall**' indicate that compliance is compulsory.
- b) The word '**should**' indicates a recommendation.
- c) The word '**may**' indicates an opinion.
- d) The word '**will**' is used to express the future.

Glossary

In addition to the terms that can be found in CAP 413 Radiotelephony Manual, the terms shown below may be relevant to the operation of an aeronautical radio station.

Terms annotated (A) are defined in The Air Navigation Order 2016 Schedule 1. Those annotated (ICAO) have been taken from ICAO documents and those annotated (B) have a different interpretation to ICAO. Those which have not been annotated are terms which are frequently used and are considered to need clarification or explanation.

AERODROME ELEVATION	The elevation of the highest point of the landing area. (ICAO)
AERONAUTICAL MOBILE SERVICE	A mobile service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival craft stations may participate; emergency position-indicating radio beacon stations may also participate in this service on designated distress and emergency frequencies. (ICAO)
AERONAUTICAL RADIO STATION	A radio station on the surface, which transmits or received signals for the purpose of assisting aircraft. (A)
AERONAUTICAL (GROUND) RADIO STATION	Term used by Ofcom for aeronautical station.
AERONAUTICAL STATION	A land station in the aeronautical mobile service. In certain instances, an aeronautical station may be located, for example, on board ship or on a platform at sea. (ICAO)
NOTE: For the purposes of this publication, the terms Aeronautical Radio Station (Air Navigation Order), Aeronautical Station (ICAO), Mobile Surface Station (ICAO) and Aeronautical (Ground) Radio Station (Ofcom) will be covered by use of the single term Aeronautical Radio Station unless there is a need to refer to the other terms individually.	
AIRCRAFT STATION	A mobile station in the aeronautical mobile service, other than a survival craft station, located on board an aircraft.
ALERTING SERVICE	A service provided to notify appropriate organizations regarding aircraft in need of search and rescue aid, and assist such organizations as required. (ICAO)

ALTERNATE AERODROME	An aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing. (Reg (EU) 923/2012)
APRON	A defined area, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance. (Reg (EU) 923/2012)
CLEARWAY	An area at the end of the take-off run available, selected or prepared as a suitable area over which an aircraft may make a portion of its initial climb to a specified height.
CLOUD CEILING	Cloud ceiling means the height above the ground or water of the base of the lowest layer of cloud below 6,000 metres which, when visible from the aerodrome, is sufficient to obscure more than half the sky. (A)
DESIGNATED OPERATIONAL COVERAGE (DOC)	The term designated operational coverage is used to refer to the combination of the designated operational range and the designated operational height (e.g. 200 NM FL 500). (ICAO) DOC is that volume of airspace needed operationally in order to provide a particular service and within which the facility is afforded frequency protection. (B) NOTE: This term is usually associated with a frequency assignment to denote the volume of airspace in which it may be used.
LOG	For Offshore Communications Service (OCS) operations the suffix 'LOG' will be added to an approved callsign when logistics information is being passed.
LOCATION INDICATOR	A four letter code group formulated in accordance with rules prescribed by ICAO and assigned to the location of an aeronautical fixed station. (ICAO)
MANOEUVRING AREA	The part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons. (Reg (EU) 923/2012)
MOBILE SURFACE STATION	A station in the aeronautical telecommunication service, other than an aircraft station, intended to be used while in motion or during halts at unspecified points. (ICAO)
NIGHT	The time between half an hour after sunset and half an hour before sunrise (both times inclusive), sunset and sunrise being determined at surface level. (A)

OFFSHORE INSTALLATION	A structure which is, will be or has been used while standing in relevant waters or on the foreshore, for the exploitation of mineral resources by means of a well, for the storage of gas, for the conveyance of things by means of a pipe or for the provision of accommodation for persons who work on or from a similar structure.
OPERATIONAL CONTROL COMMUNICATIONS	Communications required for the exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of a flight. NOTE: Such communications are normally required for the exchange of messages between aircraft and aircraft operating agencies (e.g. company frequencies). (ICAO)
PUBLIC CORRESPONDENCE	Any telecommunication which offices and stations must, by reason of their being at the disposal of the public, accept for transmission.
RADIAL	A magnetic bearing extending from VOR/VORTAC/TACAN. (B)
RESCUE CO- ORDINATION CENTRE	A unit responsible for promoting efficient organisation of search and rescue service and for co-ordinating the conduct of search and rescue operations within a search and rescue region. (ICAO)
VISIBILITY	Visibility for aeronautical purposes is the greater of: - The greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognised when observed against a bright background; - The greatest distance at which lights in the vicinity of 1,000 candelas can be seen and identified against an unlit background. (Reg (EU) 923/2012) NOTE: The two distances which may be defined by a given visibility have different values in air of a given extinction coefficient. Visibility based on seeing and recognizing an object (a above) is represented by the meteorological optical range (MOR). Visibility based on seeing and identifying lights (b above) varies with the background illumination. (Reg (EU) 923/2012) GM 1 Article 2(141)(a) GM1)

Abbreviations

A	
AGCS	Air Ground Communication Service
AFIS	Aerodrome Flight Information Service
AIC	Aeronautical Information Circular
AIS	Aeronautical Information Service
ANO	Air Navigation Order
ATC	Air Traffic Control
ATCO	Air Traffic Control Officer
ATIS	Aerodrome Terminal Information Service
ATM	Air Traffic Management
C	
CA	Continuous Assessment
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication
CDO	Clearance Delivery Officer
COM	Communications
D	
DOC	Designated Operational Coverage
DPC	Dedicated Practical Check
E	
ERRV	Emergency Response and Rescue Vessels
F	
FIS	Flight Information Service
FISO	Flight Information Service Officer

FL	Flight Level
FRTOL	Flight Radio Telephony Operators Licence
Ft	Feet
G	
GMC	Ground Movement Control
GMP	Ground Movement Planner
H	
HLO	Helideck Landing Officers
HM	Her Majesty's
I	
IAIP	Integrated Aeronautical Information Package
ICAO	International Civil Aviation Authority
ICAO FMG	ICAO Frequency Management Group
ITU	International Telecommunication Union
K	
kHz	Kilohertz
L	
LCE	Local Competence Examiner
LOG	Logistics
M	
MF	Medium Frequency
MHz	Megahertz
N	
NATS	NATS Ltd
NDB	Non-Directional Beacon
NM	Nautical Miles

O	
OCS	Offshore Communications Service
OJT	On-the-Job Training
OPC	Operational Control
R	
RLOS	Radio Line-of-Sight
ROCC	Radio Operator's Certificate Of Competence
RT	Radio Telephony
R&TTED	Radio And Telecommunications Terminal Equipment Directive
S	
SARPs	Standards and Recommended Practices
SARG	Safety and Airspace Regulation Group
T	
TACAN	Tactical Aid to Navigation
U	
UK	United Kingdom
UTP	Unit Training Plan
V	
VHF	Very High Frequency
VOR	VHF Omni-Ranging
VORTAC	Joint VOR / TACAN
W	
WTA	Wireless and Telephony Act (2006)