Australian Government
Civil Aviation Safety Authority

ADVISORY CIRCULAR
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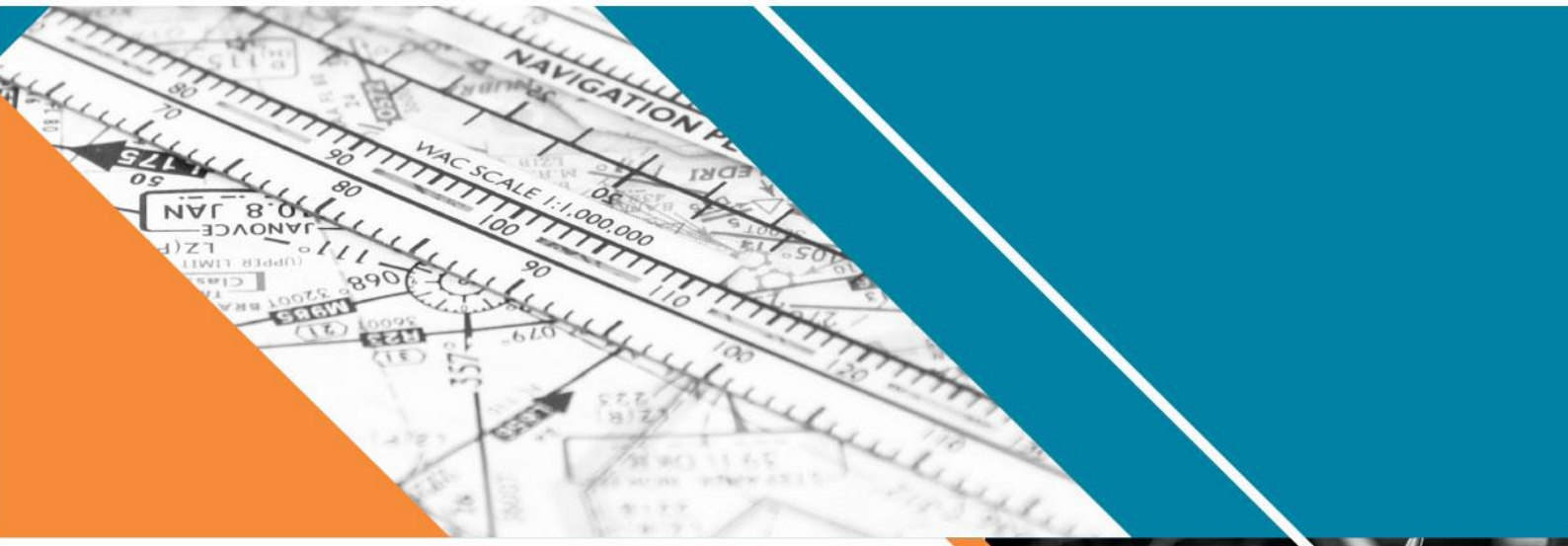

Guidelines for certified air/ground radio services

Date	August 2020
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Advisory Circulars are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the Regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.

Advisory Circulars should always be read in conjunction with the relevant regulations.

Audience

This advisory circular (AC) applies to:

- aerodrome operators
- providers of certified air/ground radio services (CA/GRS)
- certified air/ground radio operators (CA/GRO)
- pilots
- Airservices Australia
- Bureau of Meteorology.

Purpose

The purpose of this AC is to provide guidance on the provision of a CA/GRS.

For further information

For further information, contact CASA's Personnel Licensing, Aerodromes and Air Navigation Standards (telephone 131 757).

Status

This version of the AC is approved by the Branch Manager, Flight Standards.

Note: Changes made in the current version are not annotated. The document should be read in full.

Version	Date	Details
v1.0	August 2020	This AC replaces AC 139-27 - Guidelines for certified air/ground radio services.

Unless specified otherwise, all subregulations, regulations, divisions, subparts and parts referenced in this AC are references to the *Civil Aviation Safety Regulations 1998 (CASR)*.

Contents

1 Reference material

1.1 Acronyms

The acronyms and abbreviations used in this AC are listed in the table below.

Acronym	Description
AC	Advisory Circular
AIP	Aeronautical Information Publication
AAIS	Automatic Aerodrome Information Service
CAR	*Civil Aviation Regulations 1988*
CASA	Civil Aviation Safety Authority
CASR	*Civil Aviation Safety Regulations 1998*
CAVOK	Visibility, cloud and present weather better than prescribed values or conditions
CA/GRO	Certified Air/Ground Radio Operator
CA/GRS	Certified Air/Ground Radio Service
CTAF	Common Traffic Advisory Frequency
ETA	Estimated Time of Arrival
GEN	General
MOS	Manual of Standards
NOTAM	Notice to Airmen
QNH	Atmospheric pressure at sea level (measured in hectopascals)
RTF	Radiotelephony
VHF	Very High Frequency

1.2 Definitions

Terms that have specific meaning within this AC are defined in the table below.

Term	Definition
Automatic Aerodrome Information Service (AAIS)	The service that provides current, routine information for aircraft arriving at or departing from an aerodrome by means of repetitive broadcasts on a discrete frequency.
Certified Air/Ground Radio Service (CA/GRS)	An aerodrome radio information service that provides aircraft operating in the vicinity of an aerodrome with the services and information specified in Chapter 22 of the Part 139 Manual of Standards (MOS).
Certified Air/Ground Radio Operator (CA/GRO)	A person who is certified as a CA/GRO under regulation 139.160.

Term	Definition
Relevant traffic	Advice of relevant air traffic in the airspace in the vicinity of or on the aerodrome.
Scheduled air transport operation	An air transport operation conducted in accordance with a published schedule.

1.3 References

Regulations

Regulations are available on the Federal Register of Legislation website https://www.legislation.gov.au/

Document	Title
Division 139.D.2 of CASR	Aerodromes
Part 139 Manual of Standards (MOS)	Aerodromes
Section 99A of the *Civil Aviation Regulations 1988* (CAR)	Broadcasts to be made at certain aerodromes
Section 120 of CAR	Weather reports not to be used if not made with authority
Section 166E of CAR	Requirements for operating on or in the vicinity of certified, military or designated non controlled aerodromes
Part 65 MOS	Standards Applicable to Air Traffic Services Licensing and Training Requirements

Advisory material

CASA's advisory circulars are available at http://www.casa.gov.au/AC

CASA's Civil Aviation Advisory Publications are available at http://www.casa.gov.au/CAAP

Document	Title
	Aeronautical information publication (AIP)

1.4 Forms

CASA’s forms are available at http://www.casa.gov.au/forms

Form number	Title
Form 715	Air/Ground Radio Operator Certificate — Application

2 Provision of certified air/ground radio service (CA/GRS)

2.1 Purpose of the certified air/ground radio service

2.1.1 In accordance with Division 139.D.2 of the *Civil Aviation Safety Regulations 1998* (CASR), a CA/GRS is an aerodrome-based radio information service that:

- is operated by a CA/GRO
- has been approved by CASA.

2.1.2 The primary purpose of a CA/GRS is to enhance the safety of air transport operations by providing pilots of aircraft operating in the vicinity of a non-controlled aerodrome with traffic information in specific terms for their flight(s), which enhances their ability to see and avoid potentially conflicting traffic.

2.2 Provision of a CA/GRS

2.2.1 Provision of a CA/GRS is voluntary.

2.2.2 A CA/GRS may be provided at any aerodrome subject to CASA approval. Depending on the particular application such a service may be provided on a permanent or temporary basis.

3 CA/GRO certification

3.1 Requirements and the application process

3.1.1 To perform the functions of a certified air/ground radio operator (CA/GRO), a person must hold a CA/GRO certificate.

3.1.2 To be eligible for a CA/GRO certificate, a person must:

- have or obtain a CASA aviation reference number (ARN)
- hold a current flight radio operator licence or a current Aeronautical Radio Operators Certificate (AROC)
- hold a current Bureau of Meteorology Class A or B weather observer's qualification
- hold or have held:
  - an ICAO recognised air traffic controller licence

    or
  - an Australian Defence Force qualification equivalent to an Air Traffic Control licence

    or
  - an Australian Flight Service Officer licence

    or
  - a CA/GRO certificate previously issued by CASA.

3.1.3 Applicants must complete CASA Form 715 'Application Certified Air Ground Radio Operator'. This form is available on the CASA website. <https://www.casa.gov.au>

3.1.4 The completed application form and evidence for each eligibility item mentioned in paragraph 3.1.2 must be submitted to CASA either by email, or by post, to:

email: applications@casa.gov.au

CASA licensing and registration centre
GPO Box 2005
Canberra ACT 2601

3.1.5 A fee must be paid at the time of application. CASA will not proceed with assessment of the application until payment has been received.

4 CA/GRS facilities and service delivery

4.1 Service facilities and documents

4.1.1 Before provision of the service is approved by CASA, and at all times the service is available after the grant of approval, the applicant must ensure the following facilities and documents are in place and operational:

- a suitable work area with full view of the circuit area, manoeuvring area and the approaches to the runways
- very high frequency (VHF) transmitter/receiver operating on the Common Traffic Advisory Frequency (CTAF) or broadcast area frequency
- automatic aerodrome information service AAIS (recommended to be on a separate VHF frequency)
- meteorological instrumentation—that complies with Bureau of Meteorology standards for aviation use—that measures:
  - wind direction in degrees magnetic
  - wind speed in knots
  - atmospheric pressure at sea level (QNH)
  - aerodrome temperature (measured in degrees Celsius)
- current aeronautical documents, including:
  - notice to airmen (NOTAM)
  - charts appropriate to instrument flight rules and visual flight rules operations within the vicinity of the aerodrome or broadcast area
- a telephone/internet access/computer
- an aerodrome emergency plan.

4.1.2 Where available additional considerations may include:

- local CA/GRS operating procedures
- navigational aid status
- AIP documentation
- flight details.

5 Operation of a CA/GRS

5.1 Call-sign

5.1.1 The call-sign used by the CA/GRO must begin with the location name of the aerodrome followed by the word 'radio'.

5.2 Hours of operation

5.2.1 A CA/GRS can be provided on a permanent or temporary basis.

5.2.2 Where provided the service must be operating for the period 30 minutes before arrival to 30 minutes after departure of each scheduled air transport operation.

5.3 Statement of availability

5.3.1 The operator of an aerodrome where a CA/GRS is provided is required to provide the following information to the Aeronautical Information Service (Airservices Australia) for publication in the Aeronautical Information Publication:

- call sign and radio frequency
- hours of operation
- radio frequency of the AAIS for the aerodrome.

5.3.2 If the CA/GRS becomes unavailable during the published hours of operation, the aerodrome operator must arrange for a NOTAM to be issued advising that the service is not available.

5.4 Information to be broadcast - automatic aerodrome information service (AAIS)

5.4.1 At all times the CA/GRS is operating, the AAIS must broadcast the following information in list order:

- preferred runway
- wind direction and speed
- runway surface conditions
- temperature
- atmospheric pressure at sea level (QNH) temperature
- cloud base and visibility
- present weather or visibility, cloud and present weather better than prescribed values or conditions (CAVOK)
- aerodrome operational information.

5.4.2 A record of the information and the date and time it was provided should be retained.

5.4.3 Aerodrome information may also be provided to pilots by telephone.

5.5 Phraseology

5.5.1 When communicating on the radio, the CA/GRO is to use precise and concise phraseology to minimise frequency congestion.

5.5.2 Radio communication phraseology is internationally standardised to provide uniformity in communication. Wherever possible, a CA/GRO should use standard aviation terms and phraseology.

5.6 Radio procedures

5.6.1 When using the radio, the CA/GRO should:

- test the radio when commencing the service, including readability
- check the volume and frequency
- listen before broadcasting
- pause at the beginning and end of the transmission to avoid words being missed.

5.6.2 A CA/GRO responds to the first broadcast an aircraft makes when arriving, departing or transiting the aerodrome vicinity. Thereafter, the CA/GRO does not normally respond unless a pilot specifically calls the service. For example, the operator would state:

PILOT: 'Ayers Rock Radio, A320 Jetstar six sixty-four, two five miles east, passing eight thousand, inbound, estimating Ayers Rock three two, received BRAVO.'

CA/GRO: 'Jetstar six sixty-four, Ayers Rock Radio, traffic is a Cessna 172 Delta Juliet Romeo, taxiing for departure runway three one to Alice Springs.'

5.7 Visual observations

5.7.1 A CA/GRO is to maintain a vigilant watch on the changing positions of aircraft so that relevant traffic information can be provided. As an example, an aircraft calls taxiing for the preferred runway. An arriving aircraft has already called and advised that its estimated time of arrival (ETA) is 28. The CA/GRO observes the arriving aircraft on mid-downwind. An example of the call would be:

PILOT: 'Ayers Rock Radio, Embraer 190 Virgin sixteen twenty-eight, taxiing for Sydney, runway 13, received DELTA.'

CA/GRO: Virgin sixteen twenty-eight, Ayers Rock Radio, traffic is a B717 QLINK 1940 mid-downwind for runway 13, time one six.'

5.7.2 Similarly, at airports where circuit training is being conducted, an arriving aircraft—on entering the circuit and/or reporting 'DOWNWIND'—should be provided with traffic information about relevant aircraft ahead of it in the circuit. For example:

PILOT: 'Beech Bonanza Alpha Bravo Charlie, joining downwind, runway 24 right, full-stop.'

CA/GRO: 'Alpha Bravo Charlie, traffic is a Cessna 152, mid downwind.'

5.7.3 If a CA/GRO is asked to provide the information that is broadcast on the AAIS, the information should be given in the same order as it is on the AAIS (refer to paragraph 5.4.1)

5.7.4 While the AAIS broadcast should be kept current, there will be occasions when the wind will be fluctuating to such a degree that it does not reflect the actual conditions. In these circumstances, the provision of wind checks immediately prior to take-off or on final approach may be of assistance to pilots. For example:

AAIS Broadcast: '(airport) Information CHARLIE, preferred runway 31, wind 260 degrees 15 to 25 knots, cross wind runway 31 up to 18 knots, QNH 1012, temperature 24, CAVOK.'

CA/GRO: 'Wind two five zero at one eight knots.'

5.8 Records

5.8.1 A form of 'running sheet' should be used to write down callsigns and other relevant information. As a guide, the 'running sheet' may contain any of the following:

- traditional flight progress strips adapted or modified to suit the location and service provided
- flight progress strips reproduced on sheets of paper
- a paper form that has appropriate headings and columns.

5.8.2 A written record of the content of each AAIS broadcast, including a date/time group, should be kept as part of the daily records.