CIVIL AVIATION
SAFETY AUTHORITY
AUSTRALIA

CAAP No. AIRWAYS - 3(2)

Civil Aviation Advisory Publication September 2001

Standards and practices for Certified Air/Ground Radio Services

This publication is advisory, not regulatory. It specifies the CASA standards and practices for a Certified Air/Ground Radio Service (CA/GRS) provided at any non-controlled aerodrome.

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Reference

- Civil Aviation Order 92.3

Who should read this Advisory Publication

Aerodrome operators and other organisations or individuals who intend to provide a Certified Air/Ground Radio Service (CA/GRS) at an aerodrome.

Why this CAAP has been published

This CAAP provides advice on the provision of a CA/GRS.

Under CAO 92.3, a CA/GRS is required at prescribed non-controlled aerodromes.

A CA/GRS satisfies the CASA requirement for a ground based radio communication service and a radio communication confirmation system to support operations of RPT aircraft into non-controlled aerodromes, as required by Civil Aviation Orders 82.3 and 82.5.

Status of this CAAP

This is the third issue of CAAP No. AIRWAYS-3. It remains current until re-issued, withdrawn or superseded.

For further information

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1. Definitions and abbreviations

***AAIS*:** The provision of current, routine information to arriving and departing aircraft by means of continuous and repetitive broadcasts during the hours when the unit responsible for the service is in operation.

ACA: Australian Communications Authority

***AIP*:** Aeronautical Information Publication

AIS: Airservices Australia in its capacity as the provider of an Aeronautical Information Service.

AOC: Air Operator's Certificate

ATSB: Australian Transport Safety Bureau

Certified Air/Ground Radio Service (CA/GRS): An aerodrome radio information service that provides operational information to aircraft within an MBZ.

Certified Air/Ground Radio Operator (CA/GRO): A person operating a Certified Air/Ground Radio Service.

High capacity aircraft: An aircraft certified as having a maximum seating capacity exceeding 38 seats or a maximum payload exceeding 4,200 kilograms.

ICAO: International Civil Aviation Organisation

***MBZ*:** Mandatory Broadcast Zone

relevant traffic: Aircraft that the CA/GRO knows to be operating within the MBZ and that may constitute a hazard to a broadcasting aircraft.

RTF: Radio telephony

RPT: Regular Public Transport

2. Introduction and background

2.1 CASA is concerned with the potential for aircraft incidents in airspace associated with non-controlled aerodromes not served by ground communication facilities. Also, the ATSB has issued a number of recommendations, including the following:

'Implement methods of providing to pilots confirmation of the correct selection and operation of an MBZ or CTAF frequency.

Examine the requirement for the establishment and operation of traffic alerting services at all aerodromes during RPT operations.'

2.2 In following these recommendations, CASA has developed an aerodrome radio information service called a ***Certified Air/Ground Radio Service*** (CA/GRS).

2.3 This CAAP contains the standards and practices for the establishment and operation of a CA/GRS. Annexes contain:

- procedures and phraseology for CA/GROs
- procedure for pre-commissioning and annual compliance check of a CA/GRS and its operators.

3. Benefits of a CA/GRS

3.1 The benefits of a CA/GRS are that:

- it satisfies the ATSB recommendations for frequency confirmation, and for alerted traffic information for RPT aircraft
- pilots are provided with relevant traffic information
- pilots are provided with current aerodrome weather information, and
- it addresses the requirements for straight-in approaches at non-controlled aerodromes.

4. Where may a CA/GRS be provided?

4.1 The service has been mandated by CASA for prescribed aerodromes published in the Schedule to CAO 92.3.

4.2 Subject to approval by CASA, a CA/GRS may be provided at any aerodrome within an MBZ. Depending upon the particular application, such a service may be provided on a permanent or temporary basis.

4.3 The service is well suited to one-off events where there is a short term traffic concentration, such as air-shows or fly-ins, where air traffic control is not justified.

5. Information provided by a CA/GRS

5.1 A CA/GRS provides the following:

- advice of relevant air traffic in the airspace or on the aerodrome
- aerodrome information, including:
  - the runway preferred by wind or noise abatement requirements
  - cloud base and visibility
  - wind direction and speed
  - present weather
  - temperature
  - QNH
  - runway surface conditions
- other operational information
- for departing aircraft, a time check.

Note: As the QNH must be provided from a source meeting Bureau of Meteorology (BoM) standards for aviation use, it meets the criteria for reduction of published IAL minima. (AIP ENR 1.5).

5.2 A CA/GRO may also provide other information requested by pilots.

6. Use of information by pilots

6.1 The decision to use, or not to use, information provided by a CA/GRO rests with the pilot in command.

7. Additional services that may be provided by a CA/GRO

7.1 A CA/GRO may also:

- act as a representative of an air operator (where formal agreement with the air operator has been established) for the purposes of cancelling SARWATCH. AIP ENR 1.1 Section 64.1 refers
- call out emergency services
- provide aerodrome information to pilots who telephone.

8. Facilities and documentation for provision of a CA/GRS

8.1 The facilities and documentation necessary for the provision of a permanent CA/GRS are:

- a suitable work area that provides the CA/GRO with a full view of the manoeuvring area and circuit area
- two-way VHF radio communications
- an AAIS
- a telephone
- a means of receiving NOTAM
- instrumentation, that meets BoM standards for aviation use, to provide:
  - the wind direction and speed
  - QNH, and
  - air temperature.

Note: *An automatic weather station providing wind direction, wind speed, and QNH, that meets BoM standards for aviation use, meets this requirement.*

- current aeronautical documentation, NOTAM, and charts appropriate to IFR and VFR operations within the MBZ
- the Aerodrome Emergency Plan (AEP) for the aerodrome and
- a copy of this CAAP.

Note: *Temporary services may not need all the above facilities.*

9. Procedures and phraseology

9.1 A CA/GRO will use the standard aviation communication techniques and phraseology set out in AIP. Where no standard phraseology is available, the CA/GRO should use plain English.

9.2 A guide to procedures and phraseology for CA/GROs is at Annex A.

10. Who can be a CA/GRO?

10.1 The primary purpose of a CA/GRS is to enhance the safety of RPT aircraft operations by the provision of relevant traffic information. This aspect of the service requires CA/GROs to have had specialised training and experience. Therefore, applicants for the issue of a CA/GRO Certificate must hold, or have held within the last ten years, an ICAO recognised Air Traffic Controller licence or an Australian Flight Service Officer licence.

11. CA/GRO certification

11.1 To perform the functions of a CA/GRO, the operator must hold a CA/GRO certificate.

12. Application for, and issue of, a CA/GRO certificate

12.1 The application form for a CA/GRO certificate is CASA Form 715. Completed application forms should be sent to the CASA Area Office (attention Licensing Officer) nearest to the applicant's place of residence.

12.2 After receiving an application and before issuing a CA/GRO certificate, CASA must:

- confirm the applicant's identity and
- confirm that the applicant meets the appropriate licence qualification.

12.3 If the applicant does not hold an Australian pilot licence, CASA will issue the applicant an Aircraft Radiotelephone Operator Certificate of Proficiency (regulation 83A of CAR 1988). Additionally, all applicants will be issued with an instrument of approval under regulation 120 of CAR 1988 to provide pilots with meteorological observations.

12.4 A CA/GRO Certificate will be valid for 10 years from the issue date.

13. Station callsign

13.1 A CA/GRS callsign will be the location name of the aerodrome followed by the word 'Radio'.

EXAMPLE:
'Ayers Rock Radio'

14. Notification of service availability

14.1 AIP En-Route Supplement Australia (ERSA) FAC will contain information on CA/GRS, including frequency, hours of operation and AAIS.

15. Action by aerodrome licence holder or owner

15.1 The aerodrome licence holder or owner must inform AIS of the establishment of, or any changes to, a CA/GRS.

16. ACA licensing and equipment requirements

16.1 All aeronautical ground stations, whether mobile or fixed, must be licensed by the Australian Communications Authority (ACA).

16.2 Further information about Aeronautical Licences and licence fees may be obtained from the ACA's Internet website:

(http://www.aca.gov.au)

or by contacting any ACA Office.

16.3 The ACA requires that aeronautical radio communication equipment meets its Equipment Compliance Requirement (ECR) 203A.

17. Pre-commissioning and routine compliance checks

17.1 Pre-commissioning and routine compliance checks, in accordance with Annex B, are a requirement for aerodromes included in the Schedule to CAO 92.3. Such checks should also be undertaken for other CA/GRS.

ANNEX A

Procedures and Phraseology for CA/GRS

1. Introduction

1.1 Radio communication procedures and phraseology are internationally standardised with the object of ensuring uniformity in RTF communications. CA/GROs are to comply with the general radiotelephony procedures in AIP GEN 3.4.

1.2 In radio communications, the primary goal of the CA/GRS is the use of precise and concise phraseology to minimise frequency congestion.

1.3 It is also important that CA/GROs provide a straight forward and friendly service.

2 Records

2.1 **Running Sheets.** A form of 'running sheet' should be used to write down call-signs and other relevant information. As a guide, the 'running sheet' may comprise traditional flight progress strips adapted or modified to suit the location and service provided, flight progress strips reproduced on sheets of paper, or a paper form that has appropriate headings and columns.

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

3 Radio Procedures

3.1 A CA/GRO responds to the first broadcast an aircraft makes when arriving, departing or transitting the MBZ. Thereafter, the CA/GRO does not normally respond unless an aircraft specifically calls the service.

EXAMPLES:

'All stations Wagga, SAAB Kendell one twenty three, one five miles north, passing three thousand five hundred, inbound, estimating Wagga three two, received BRAVO.'

'Kendall one twenty three, Wagga Radio, traffic is a Cessna 172 Delta Juliet Romeo, taxiing for departure runway zero five.'

3.2 **Visual Observations.** CA/GROs need to maintain a vigilant look out to assess the ongoing positions of aircraft, so that relevant traffic information can be provided.

3.3 As an example, an aircraft calls taxiing for the preferred runway. An arriving aircraft has already called and advised that its ETA is 28. The CA/GRO observes the arriving aircraft on mid downwind.

EXAMPLE:
'All stations Ayers Rock Radio, BAe 146 Juliet Juliet Uniform, taxiing for Alice Springs, runway 13, received DELTA.'
'Juliet Juliet Uniform, Ayers Rock Radio, traffic is a B737 Tango Juliet Delta mid downwind for runway 13, time one six.'

3.4 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 on relevant aircraft ahead of it in the circuit.

EXAMPLE:
'Beech Bonanza Alpha Bravo Charlie, joining downwind, runway 24 right, full-stop.'
'Alpha Bravo Charlie, traffic is a C-152, mid downwind.'

3.5 **Aerodrome Information** is broadcast on the AAIS. However, if a CA/GRO is requested to provide the information, it should be given in the same order as it is on the AAIS, ie.:

- wind direction and speed
- preferred runway
- runway surface conditions
- QNH
- temperature
- cloud base and visibility
- present weather or CAVOK
- operational information

3.6 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 may be of assistance to pilots.

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.'

ANNEX B

Pre-commissioning and Routine Compliance Check List

1. Service Facilities and Documents

1.1 Check that following facilities and documents are in place and operational:

- work station with full view of the circuit area and manoeuvring area
- VHF transmitter/receiver operating on the MBZ frequency
- AAIS facility on a separate VHF
- meteorological instrumentation meeting BOM standards for aviation use that measures:
  - wind direction in degrees magnetic
  - wind speed in knots
  - QNH
  - aerodrome temperature in degrees Celsius
- current aeronautical documents including NOTAM, appropriate to IFR and VFR operations within the MBZ
- a telephone
- CAAP No. AIRWAYS - 3
- Aerodrome Emergency Plan.

2. Operator Certification Status and Practical Skills at the Location

2.1 Check that each operator holds a CA/GRO certificate, and holds authorisations from CASA under subregulation 83(2) and regulation 120 of CAR 1988.

2.2 Carry out a sample of the following checks in respect to each operator's capabilities at the location. The sample checks must include testing the capability of the operator in the provision of traffic and weather advice.

3. Traffic Assessment

3.1 Operator to demonstrate the correct use of a Running Sheet in recording:

- time, aircraft call-signs and types
- arrival, departure and transitting broadcasts
- traffic information and weather information passed to aircraft
- completion of action.

3.2 Operator to identify and describe the position of aircraft:

- on the aerodrome
- in the circuit
- arriving, departing and
- transitting.

3.3 Operator to identify traffic conflictions.

4. Weather Assessment

4.1 Using an aerodrome weather information sheet, operator to demonstrate how to record:

- wind direction and speed
- preferred runway
- QNH
- temperature
- cloud base
- visibility
- present weather.

4.2 Using wind instrumentation, operator to demonstrate:

- how to obtain the wind direction and speed
- the use of wind direction and speed in determining the preferred runway.

4.3 With reference to an aerodrome visibility chart, operator to identify common landmarks and determine their visual range in bearings and distances from the station.

4.4 Operator to demonstrate how to obtain aerodrome QNH.

4.5 Operator to interpret automatic weather station data.

4.6 Operator to demonstrate correct recording of weather and other aerodrome information onto the AAIS.

5. Radio Telephony Procedures

5.1 Operator to demonstrate an understanding of the correct phraseology and phonetics:

- aircraft call-signs
- levels, bearings and distances
- standard procedural words and phrases
- time
- establishing communications
- responding to emergency transmissions
- radio test procedures and readability scales.

5.2 Operator to demonstrate the correct phraseology to be used when passing traffic and other information to aircraft:

- arriving
- departing
- transitting.

5.3 Microphone and communication technique:

- clear, concise transmissions
- correct use of phonetics and numbers
- establishing and maintaining communications
- not creating frequency congestion.

6. Emergency services alerting

6.1 Recognition of abnormal aircraft operations.

6.2 Emergency notification procedures:

- correct assessment of emergencies
- authorities and/or emergency services alerted in order of priority.

6.3 Cancellation of SARWATCH:

- circumstances where permitted
- notification to Airservices
- confirmation of termination of SARWATCH.