

Civil Aviation Safety Authority

Issue 1

Date of issue: October 1996

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Copies of the Syllabus are available from the CASA website at www.casa.gov.au

1. References

1.1 Legislation

• CAR 83, 83A-83F, Part 12 Division 1 to 3.

1.2 Information

- Flight Radio for Pilots (Aviation Theory Centre)
- VFR (Day) Study Guide for Private Pilot BAK (Bob Tait)
- Flight Rules and Procedures (DH Training Systems).



2. Theory Requirements

2.1 Understand the requirements for and privileges of an AROCP:

- · what requirements must be met to obtain a AROCP
- what are the privileges of an AROCP.

2.2 State the function of the following components of a radiotelephone system:

- battery switch, radio master, fuses and circuit breakers
- microphone
- transmitter
- receiver
- headphones and speaker.

2.3 In relation to the use of a radiotelephone describe the following procedures:

- setting up an aircraft radio:
 - (i) use of radio transmit and receive selector switches (VHF/HF)
 - (ii) turning a radio on
 - (iii) selecting correct frequencies
 - (iv) use of squelch control.
- use of a microphone:
 - (i) correct use of a microphone
 - (ii) voice activated systems.

2.4 Describe the characteristics of radio waves, wave transmission and reception:

- properties of radio waves
- factors affecting the propagation of radio waves.
 - (iii) terrain
 - (iv) interference from electrical equipment
 - (v) thunderstorms
 - (vi) power attenuation.

2.5 State the responsibilities of a radiotelephone operator:

- · secrecy of communications
- · unauthorised transmissions.



2. Theory Requirements

2.6 Demonstrate an understanding of correct phraseology and phonetics:

- standard procedural words and phrases
- pronunciation of phonetic alphabet and numbers
- · correct use of aircraft callsigns
- transmission of numbers
- transmission of time
- radio test procedure/readability scale
- listening to the radio (avoiding over transmissions)
- establishing and maintaining communications
- clipped transmissions and the consequences.

2.7 State standard radio procedures for:

- communication with a ground control agency
- communication with a control tower
- communication with any other air traffic agency.

2.8 State the light signals for aerodrome traffic control:

- light signals to aircraft
- light signals to vehicles and pedestrians.

2.9 Explain the information services and methods of reception:

Automatic Terminal Information Service (ATIS).

2.10 State the emergency radio procedures:

- declaring the emergency
- the Distress Message ('Mayday' call)
- the Urgency Message ('Pan' call)
- · priority of calls
- · imposition of radio silence
- loss of radio (receiver, transmitter, receiver and transmitter)
- Emergency Locator Transmitter (ELT), correct use, rules for activation.
- transmitting "blind".



3. Practical Requirements

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3.1 Demonstrate the function and operation of an aircraft radio telephone installation:

- by transmitting and receiving VHF and HF messages
- by using the battery and radio master switches
- by identifying radio power supply, generators, switches, indicating meters, batteries, fuses and circuit breakers
- external high tension power supply and remote control facilities
- antenna systems appropriate to the equipment used
- simple propagation characteristics of radio frequencies used in conjunction with the equipment available
- establish a listening watch with a control agency and conduct a communication check using the correct procedure.

A written or oral theory examination and a practical test must be completed in accordance with CAR 83F and notified to CASA on Form 638. The pass mark for each exam/test is 80%.

