

Complete VHF syllabus

2.1.1 Meets the English language to Aviation English language standard (AEL).
2.1.2 Recall the phonetic alphabet and the method of transmitting numerals.
2.1.3 Recall the correct use of aircraft call-signs.
2.1.4 State standard radio procedures for outside controlled airspace (OCTA).
2.1.5 State how transmission of time is conducted.
2.1.6 State how to listen to the radio.
2.1.7 State how to establish and maintain communications.
2.1.8 State the hazards of clipped transmissions and the consequences.
2.1.9 Demonstrate correct procedure for the conduct of a routine pre-flight test of an aircraft radio-telephone, including the following:
(a) use of radio transmit and receive selector switches;
(b) turning radio on;
(c) selecting correct frequencies;
(d) use of squelch control;
(e) selection of radio navigation equipment;
(f) correct use of a microphone;
(g) use of intercom and public address system;
(h) voice activated systems.
2.1.10 Describe the correct procedure for routine fault finding and correction.
2.1.11 State the standard phraseology to be used to report aircraft positions in the circuit and the required calls for local flights.
2.1.12 State the responsibilities of an aeronautical radio operator in relation to the following:
(a) secrecy of communications;
(b) unauthorised transmissions.
2.1.13 Describe the function of each of the following components of an aeronautical radio system:
(a) power source/battery switch;
(b) radio master;
(c) fuses and circuit breakers;
(d) microphone;
(e) transmitter;
(f) receiver;
(g) antenna;
(h) headphones and speaker.
2.1.14 Describe the difference between a distress and an emergency message and the standard phrases used in both cases.
2.1.15 Accurately extract radio failure procedures from ERSA.
2.1.16 In relation to the use of an aeronautical radiotelephone, describe the controls used to transmit and receive, including audio panel selections

2. Radio use

2.2.1 Describe the basic principles and characteristics of radio waves, wave propagation, transmission and reception for the following:

(a) radio frequency band ranges (MF, HF, VHF, UHF);

(b) properties of radio waves and the effective range of transmissions;

(c) propagation of paths of radio waves:

(i) ground waves;

(ii) sky waves;

(d) factors affecting the propagation of radio waves and reception:

(i) terrain;

(ii) ionosphere;

(iii) sun spot activity;

(iv) interference from electrical equipment;

(v) thunderstorms;

(vi) power attenuation;

(e) radio antennas:

(i) characteristics of antennas;

(ii) use of antennas.

2.2.2 Describe the limitations of VHF and HF signals and factors affecting quality of reception and range of signal.

3. Emergency procedures

3.1 State the emergency radio procedures for declaring an emergency

3.2 State the emergency radio procedures for a Distress message ('Mayday' call)

3.3 State the emergency radio procedures for a Urgency Message ('Pan' call)

3.4 State the emergency radio procedures for use of 121.5 MHz

3.5 State the emergency radio procedures for "transmitting blind".

4. Non towered aerodromes

Non towered aerodromes
4.1 State the definition of a Non-towered aerodrome
4.2 State the mandatory requirements for a Non-towered aerodrome
4.3 State the pilot responsibilities of a Non-towered aerodrome
4.4 State the size and limits of a Non-towered aerodrome
4.5 State the general structure of a radio call.
4.6 State the general procedure of a radio call.
4.7 Demonstrate the correct syntax for the following radio calls at a non-towered aerodrome
4.8 Demonstrate calling on CTAF.
4.9 Demonstrate taxiing radio call.
4.10 Demonstrate arriving aircraft call.
4.11 Demonstrate modified circuit call.
4.12 Demonstrate positional broadcast call
4.13 Demonstrate take off call.
4.14 Demonstrate entering runway call.
4.15 Demonstrate inbound radio call .
4.16 Demonstrate joining circuit call .
4.17 Demonstrate straight-in approach call .
4.18 Demonstrate joining circuit on base leg call .
4.19 Demonstrate over-fly call .
4.20 State when certain radio calls are to be made at a Non-Towered aerodrome.
4.21 State the purpose of a Unicom frequency.
4.22 State which aviation documents contain Unicom information .
4.23 State when it is most appropriate to monitor CTAF frequency.
4.24 State when it is most appropriate to monitor area frequency.
4.25 State the definition of a AFRU.
4.26 State how an AFRU is recognised when using VHF radio.
4.27 State where guidance material can be found (in aviation documents) regarding flying with an unserviceable radio in the vicinity of a non-towered aerodrome.
4.28 State what the standard procedures are when it is suspected that you are flying with a non-serviceable radio in the vicinity of a Non-Towered aerodrome.
4.29 State which aviation documents contain information and procedures on Non-towered aerodromes.
4.30 Demonstrate the use of UTC times used in transmissions at Non-Towered aerodromes.