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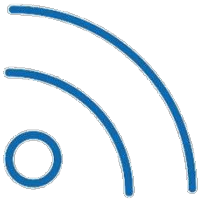
Activity 10

1 HOUR

Practicing radio communications with a tin can telephone system

Materials

- 2 empty, clean cans
- String
- Printer
- Paper
- Two people



Activity Overview

- Create your own method of communication.
- Take it in turns to be a pilot and radio operator and test your communication skills.

Activity Plan

- Ask a responsible adult to punch a hole in the bottom of both cans.
- Pass one piece of string through one can, then tie a knot in the end.
- Pass the other end of the string through the second can and tie a knot in the end (the string can be as long or short as you like, as long as you have enough space to stretch it out).
- One person needs to be the pilot and the other needs to be the radio operator.
- Each person needs to hold a can, walk away from each other so that the string is taught.
- The pilot should speak into the can whilst the radio operator holds it to their ear. Then try it the other way round.
- Using the script below act out the different scenarios.

Learning Objective

- Understand how to communicate clearly through an early method of communication
- Learn the basic radio conversation between a pilot and an air/ground radio

Reflection Questions

- How easy was it to understand what each other said?
- How did you make it easier to hear each other?
- In a busy airfield environment with a lot of people flying, how do we know who is talking?

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The importance of clear communication when flying

Babcock trains over 20,000 pilots a year and they must all know how to use the radio. There are two reasons why this is important. Firstly, a pilot needs to communicate with the radio operators to receive airfield information and for them to know what aircraft is coming in. Secondly, it is important for other pilots to know where all aircraft are in order to avoid collision; they could come from any direction!

With so much air above us, you would think that aircraft could fly wherever they wanted, but with hotspots around airfields and thousands of aircraft in the air at one time, it is vital to ensure that aircraft maintain a safe distance from each other. Radio operators are a vital part to making this work and they utilise not just what the pilot is telling them, but also radar and their eyes to maintain a full picture of what's happening in the skies.

If you want to see exactly what is flying right now, in real time, why not check out this website: https://www.flightradar24.com/ Click on the aircraft to see their flight paths and you might be lucky enough to get a picture of the aircraft too!

One of our previous activities is all about the phonetic alphabet. Head to babcockinternational.com to get your radio talk nailed.

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Script

Entering Babcock Airfield air space

Pilot: Babcock Radio this is G-BABC
Radio Operator: G-BABC, Babcock Radio, pass your message
Pilot: G-BC approaching from the South, requesting airfield information
Radio Operator: G-BC, runway 26 right hand, QFE 995
Pilot: G-BC, runway 26 right hand, QFE 955
Radio Operator: G-BC, QFE 995
Pilot: G-BC, QFE 995
Radio Operator: Roger

Don't forget to say the call-sign using the phonetic alphabet.

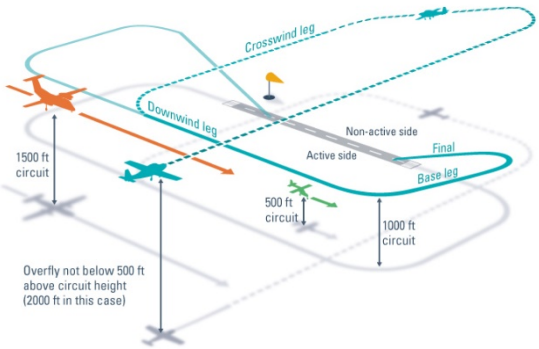
After the call sign is used in full, it can be shortened, unless there is another aircraft with the same last letters.

QFE stands for 'Query: Field Elevation' and tells you your altitude relative to the airfield.

'Right hand' tells you which direction the circuit is. If it's right hand then you should always be turning right.

Joining the circuit

Pilot: G-BC joining overhead
Pilot: G-BC joining crosswind
Pilot: G-BC down wind
Pilot: G-BC base
Pilot: G-BC final
Radio Operator: G-BC, wind westerly, 10 knots
Pilot: G-BC, roger
Radio Operator: G-BC, welcome to Babcock Airfield, please vacate the runway to the left, taxi past the clubhouse and park at the end of the line of aircraft
Pilot: G-BC, vacate to the left, park at the end of the line
Radio Operator: Roger



https://vfrg.casa.gov.au/operations/non-controlled-aerodromes/arrivals-departures-and-transits/

Departing from Babcock Airfield

Pilot: Babcock Radio, G-BABC, radio check and airfield information
Radio Operator: G-BC, you're readability 5, runway 26 right hand QNH 1010
Pilot: G-BC, runway 26 right hand, QNH 1010
Radio Operator: Roger
Pilot: G-BC taxiing to runway
Pilot: G-BC all checks complete, lining up for take-off
Radio Operator: G-BC wind westerly, 10 knots
Pilot: G-BC westerly, 10 knots
Radio Operator: Roger
(Take-off)
Pilot: G-BC departing to the southwest
Radio Operator: G-BC have a safe trip

QNH stands for 'Query: Nautical Height' and tells you your altitude relative to sea level.

When a pilot starts the aircraft, they should check that their radio is working by asking for a radio check. 5 means they are clearly understood, 1 is un-readable.

You should always take-off into the wind.