

Chapter 11-1

ON AIR

ACMA Foundation Syllabus 2 and 8.7 – 8.9

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ON AIR

An operator must only operate on the allocated frequencies. The only exception is in a distress, emergency or training situation.

An operator cannot use the amateur bands for financial gain, reward or for a third party.

Messages on the amateur band cannot be encoded to obscure the meaning of the message. The exception is to use an encoded message to control a remote station or satellite.

As a Foundation operator you are responsible for the security and safety of your station. Unqualified persons are not permitted to use your radios without supervision.

Any interference caused must be investigated and corrected. Be diplomatic with neighbours.

The governing body for amateur radio operations is the Australian Communications and Media Authority (ACMA). They have the power to restrict operations and request station information. Also, ACMA should be informed if your station is moved.

Frequencies and Power

The usable frequencies for a Foundation operator are found in the [Radiocommunications \(Amateur Stations\) Class Licence 2023 Schedule 2 Table A](#).

The Foundation operator is limited to 10 Watts PEP.

Distress and Urgency

Mayday

A distress call in telephony (voice) "MAYDAY" is announced three times. The international distress message takes priority over any other traffic and means the caller is in a life-threatening emergency primarily by aviators and mariners.

The "MAYDAY" procedure word was conceived as a distress call in the early 1920s by Frederick Stanley Mockford, officer-in-charge of radio at Croydon Airport, England. He had been asked to think of a word that would indicate distress and would easily be understood by all pilots and ground staff in an emergency. He proposed the term "mayday", the phonetic equivalent of the French m'aidez ("help me").

In telephony (CW) the distress signal is "SOS"

Urgency

The urgency signal is used as an international radio distress signal, of less urgency than a mayday signal. The words "PAN PAN" is announced three times.

The urgency signal pan-pan derives from the French word, a panne [pan] is a breakdown.

In telephony (CW) the urgency signal is "XXX".

Identification

An operator must identify their station by call sign in English every ten minutes.

Topics

When picking topics to chat with another amateur on air, think about what and how you are going to talk. There may be a lot of operators around the world listening in.

Most operators around the world speak and understand some English.

Phonetic Alphabet

The phonetic alphabet is a universal way of spelling a word. Your name is Bob, and you have a noisy contact with another operator and your conversation may go as, “My name is Bob – Bravo Oscar Bravo”.

Knowing and using the phonetic alphabet can help with your radio communications. **Learn these.**

Phonetic Alphabet

A - Alpha	N - November	. - Decimal
B - Bravo	O - Oscar	. - Stop
C - Charlie	P - Papa	
D - Delta	Q - Quebec	0 - Zero
E - Echo	R - Romeo	1 - Wun
F - Foxtrot	S - Sierra	2 - Two
G - Golf	T - Tango	3 - Tree
H - Hotel	U - Uniform	4 - Fower
I - India	V - Victor	5 - Fife
J - Juliet	W - Whiskey	6 - Six
K - Kilo	X - X-ray	7 - Seven
L - Lima	Y - Yankee	8 - Ait
M - Mike	Z - Zulu	9 - Niner

Making a contact

Follow the following steps when you want to make a callout on the radio. Your call sign is VKyyyyy.

- Listen to see if anyone is on the frequency.
- If nothing is heard, continue. If the frequency is in use, move to another frequency.
- Key the microphone and announce, “**This is VKyyyy, is this frequency in use?**”
- If there is no answer you are free to make a call.

Calling a station

You have a prearranged sked (In the context of amateur radio a sked is a pre-arranged or scheduled contact between ham radio operators.) and the time for the meeting is now.

First follow the steps listed in “Making a contact”.

If nothing is heard, then make the call.

“VKxxx VKxxx VKxxx this is VKyyyy VKyyyy VKyyyy over.”

Station called.

Station calling

For a HF call, you announce the call signs three times. If the call is on VHF or UHF, you only need to announce the call signs once. Once the call is established on HF, the call signs need only be used once.

“Thanks Greg that’s great, VKxxx this is VKyyyy over.”

The use of the term “over” is not necessary but common practice.

Call signs must be used at the following times, even when conducting tests.

- At the beginning of a transmission
- At the end of the transmission
- Every 10 minutes during a transmission

General Calls

A general call to anyone is called a “CQ” call. On VHF and UHF

“CQ CQ CQ this is VKyyyy VKyyyy VKyyyy over.”

Calling anyone.

Station calling

On VHF and UHF, you would announce your call sign and just say listening as the communications on these bands is localised.

“This is VKyyyy listening”.

Or

“This is VKyyyy listening on the Geelong repeater”.

Long Distance

We know calling CQ is for anyone, but if you want to contact someone outside VK, you use the term **DX**.

“CQ DX CQ DX CQ DX this is VKyyyy VKyyyy VKyyyy over.”

Calling anyone outside VK.

Station calling

If you wish to make contact with anyone in a particular country like Japan, you will use the following call.

“CQ Japan CQ Japan CQ Japan this is VKyyyy VKyyyy VKyyyy over.”

Calling anyone in Japan.

Station calling

Instead of using the country name, some operators use the country prefix.

“CQ JA CQ JA CQ JA this is VKyyyy VKyyyy VKyyyy over.”

Calling anyone in Japan.

Station calling

Q Codes

Q codes are abbreviations for some radio actions. The Q code was developed for morse code to reduce words to two or three letters. Q codes are prolific in aviation and maritime use outside the amateur world. Below is just a few of the most common Q codes you need to know.

The original Q-codes were created, circa 1909, by the British government as a "List of abbreviations ... for the use of British ships and coast stations The Q-codes facilitated communication between maritime radio operators speaking different languages, so they were soon adopted internationally.

Code Used as a Question

QRK - What is the readability of my signals?
QRL - Are you busy?
QRM - Are you being interfered with?
QRN - Are you troubled by static?
QRO - Shall I increase transmitter power?
QRP - Shall I decrease transmitter power?
QRS - Shall I send more slowly?
QRT - Shall I stop sending?
QRZ - Who is calling me?
QRV - Are you ready?
QRX - I will be right back.
QSB - Are my signals fading?
QSL - Can you acknowledge receipt?
QSO - Can you communicate with ... direct?
QSY Shall I change frequency?
QTH - What is your location?

Used as an Answer or statement.

The readability of your signals is ...
I am busy.
I am being interfered with (M= manmade)
I am troubled by static (N=noise)
Increase transmitter power (O=output)
Decrease transmitter power (P=power)
Send more slowly (S=slow)
Stop sending (QRT=quiet)
You are being called by ...
I am ready.
Please QRX one.
Your signals are fading.
I am acknowledging receipt (L=letter)
I can communicate with ... direct.
Change to another frequency.
My location is (H=home)

Other abbreviations

BK - Signal used to interrupt a transmission on progress.
CQ - General call to all stations
CW - Continuous wave or Morse code
DE - From, used to separate the callsign of the station called from that of the calling station.
DX - Distant
K - Invitation to transmit
MSG - Message
PSE - Please
R - Received
RX -Receiver
TX - Transmitter
UR - Your

Learn these.

Go to Chapter 11-1 Questions.

Have fun and stay safe.