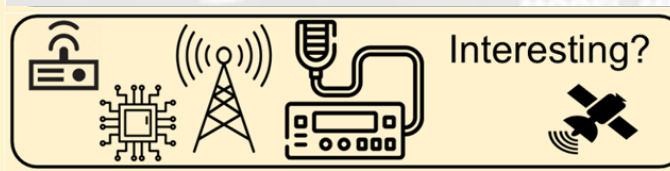


Australian Foundation Introduction



The hobby of Amateur Radio has a long and proud tradition that is worth knowing.

Amateur radio began in the early 20th century with experimenters dabbling in the scientific oddity of wireless and interest in the hobby grew after WWII.

The people, involved in early amateur radio, became the mainstay for technical professions and developed much of the technology we use today.

A lot has changed in Amateur Radio, but now the hobby is more accessible than ever before.



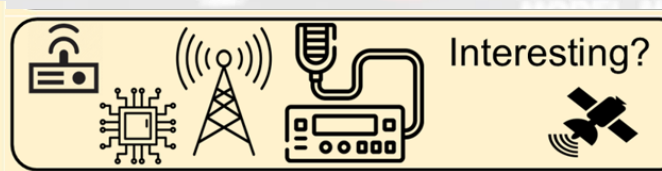
Antenna Analyser



Wyndham Amateur radio Club



Australian Foundation Introduction



In Australia, the Foundation call sign is the basic entry point to Amateur Radio and an introduction to the expanse of interests the hobby can provide.

Amateur Radio has no restrictions in age, sex or background.

Anyone wishing to gain a Foundation call sign is encouraged.

The three steps to getting a Foundation Call Sign are:

1. Study and learn the material.
2. Sit the two exams (Theory and Practical)
3. Apply for your call sign

Morse code is no longer a requirement for any Australian Amateur Radio Call Sign.



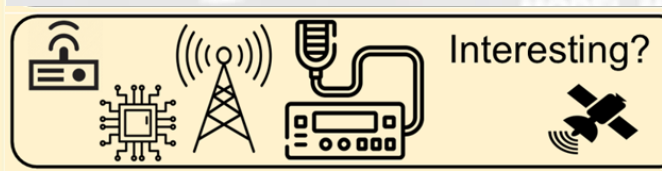
Balun



Wyndham Amateur radio Club

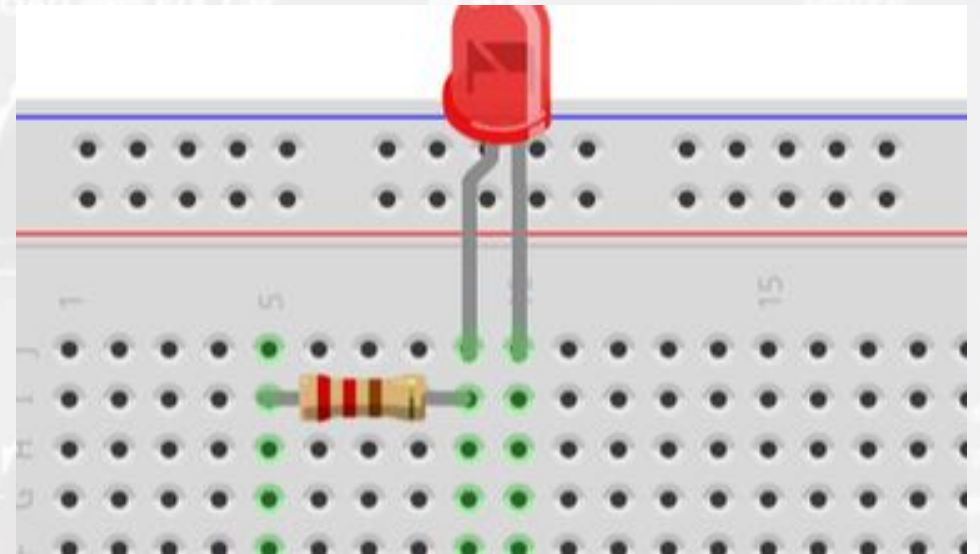


Australian Foundation Introduction



While studying for the call sign, you will learn:

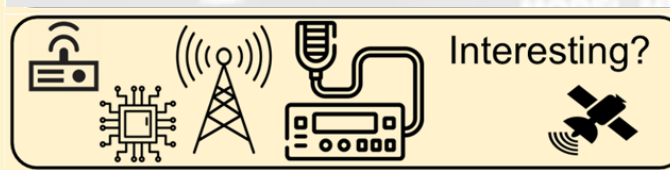
- Safety around radio equipment
- How Amateur Radio relates to other users
- Look at the radio spectrum
- Operating a radio and the regulations
- Study the technical basics of :
 - ❖ Electricity
 - ❖ Electronics
 - ❖ Transmitters
 - ❖ Receivers
 - ❖ Feedlines
 - ❖ Antennas
 - ❖ Propagation,
 - ❖ Electromagnetic compatibility (EMC) and electromagnetic radiation (EMR).



Breadboard



Australian Foundation Introduction



Step 1

This free online course material will help you prepare for the examinations.

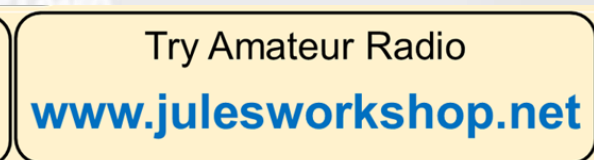
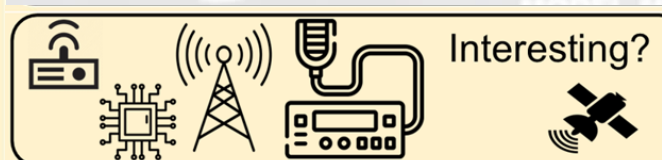
The two sections, theory and practical, are covered separately but are closely related.

There are several progress reviews and revision tests included with the learning material.

Once you, as the candidate, feel you are ready to sit the exams, a date can be set with your assessor.



Australian Foundation Introduction



Step 2

Examinations are currently set by the Australian Media and Communications Authority (ACMA).

ACMA do not charge a fee for each examination.

The examinations comprises:

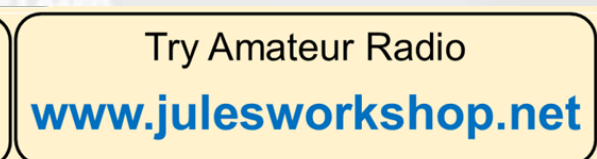
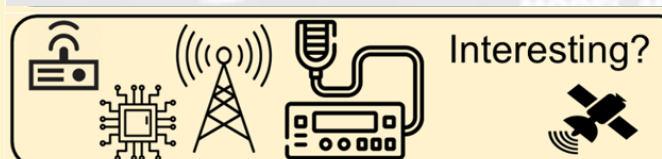
- 1st. A multi-choice question paper (25 questions in 30 minutes) covering both theory and regulations. 70% pass mark required.
- 2nd. A practical assessment of operating knowledge and skills. 100% pass mark required.



Club caravan on site in Victoria



Australian Foundation Introduction



Step 3

Once ACMA review the papers, a Certificate of Recognition will be issued by the ACMA to the candidate directly.

The candidate can then apply for a call sign.

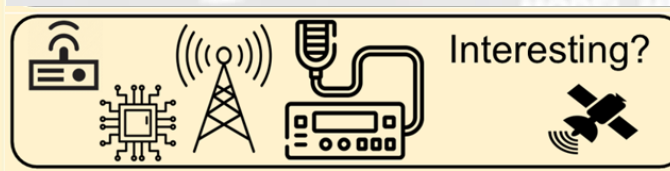
The candidate cannot operate a transmitter until the call sign is issued.



ICOM IC 7300 Transceiver



Australian Foundation Introduction



Interesting?
 Try Amateur Radio
www.julesworkshop.net

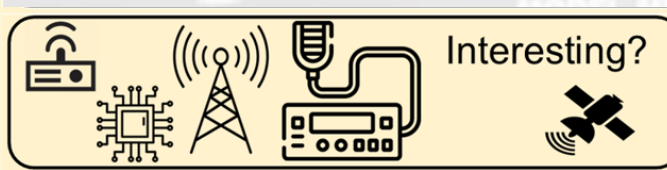
Once armed with your Foundation call sign.

- There are six radio bands available for you to access. (10-Watt limit)
- You are permitted to construct or modify your own transmitting equipment.
- Make full use of available digital modes.

Radio band	Frequency	Permitted Emission Modes
80 Metres	3.500 MHz - 3.700 MHz	Any emission mode. Where the necessary bandwidth exceeds 8 kHz, the maximum power spectral density from the transmitter must not exceed 1 watt per 100 kHz.
40 Metres	7.000 MHz - 7.300 MHz	Any emission mode with a necessary bandwidth no greater than 8 kHz.
15 Metres	21.000 MHz - 21.450 MHz	Any emission mode. Where the necessary bandwidth exceeds 8 kHz, the maximum power spectral density from the transmitter must not exceed 1 watt per 100 kHz.
10 Metres	28.000 MHz - 29.700 MHz	Where the necessary bandwidth exceeds 16 kHz, the maximum power spectral density from the transmitter must not exceed 1 watt per 100 kHz.
2 Metres	144 MHz - 148 MHz	Any emission mode.
70 Centimetres	430 MHz - 450 MHz	



Australian Foundation Introduction

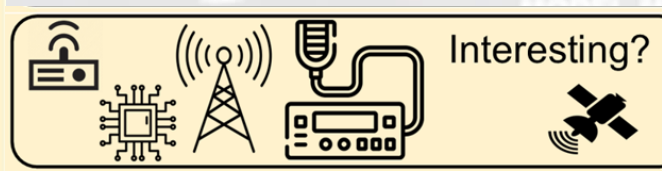


Radio band	Distance & Coverage
3.5MHz (80 metres)	Typically up to 150KM during the day and up to 3000KM at night.
7MHz (40 metres)	Typically up to 1000KM during the day and during good conditions world wide at night.
21 MHz (15 metres)	World wide mostly during the day.
28 MHz (10 metres)	World wide during periods of high sunspot activity and up to 3000km in summer.
144MHz (2 metres)	Local coverage and world wide via "IRLP" and EchoLink.
432MHz (70cm)	Local coverage, over 2000 km using something known as tropospheric ducting and world wide via "IRLP" and EchoLink.

This is an example of the communication distance and accessibility of the bands available for use.



Australian Foundation Introduction



Still keen?

Get started at.

www.Julesworkshop.net

IMPORTANTLY

Have fun and stay safe



Our radio club, "The Wyndham Amateur Radio Club (WARC)" supports this free online training and any tuition.

7/02/2026

V4



The Wireless Institute of Australia

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