Australian Foundation Licence Introduction

Jules' Workshop

Interesting?

Try Amateur Radio

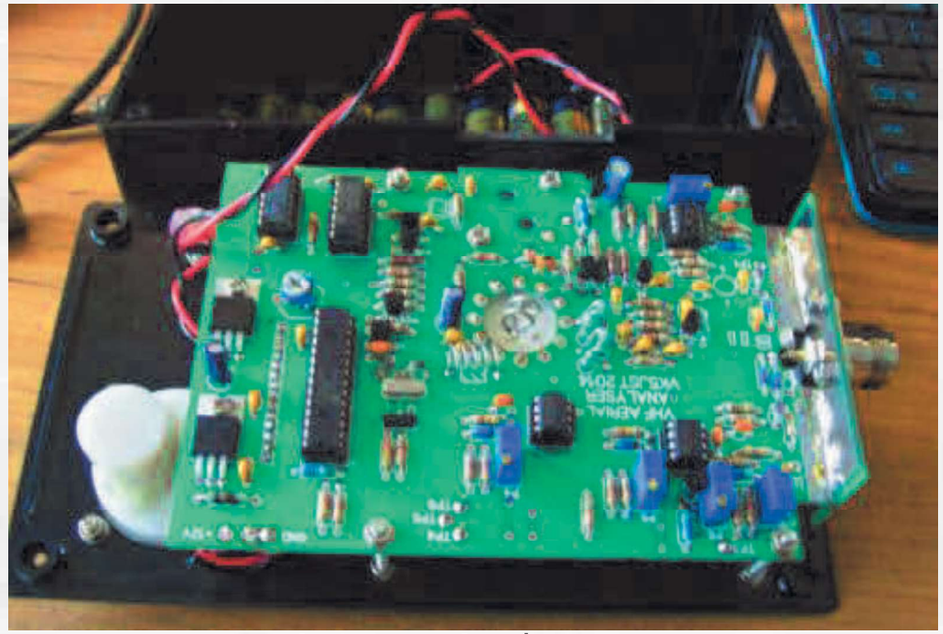
www.julesworkshop.net

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

Amateur radio began 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

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

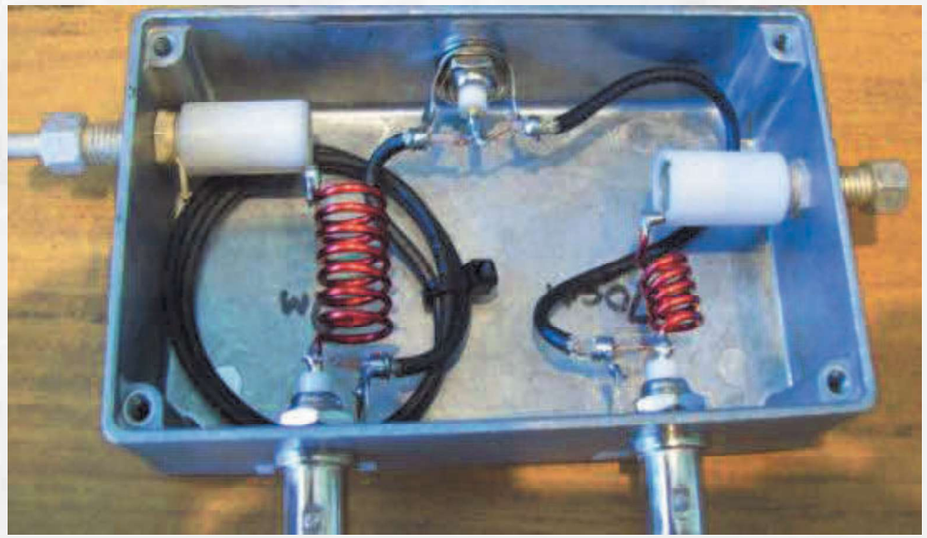
Amateur Radio has no restrictions in age or background.

Anyone wishing to gain a Foundation Licence is encouraged.

The three steps to getting a Foundation Licence are:

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

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



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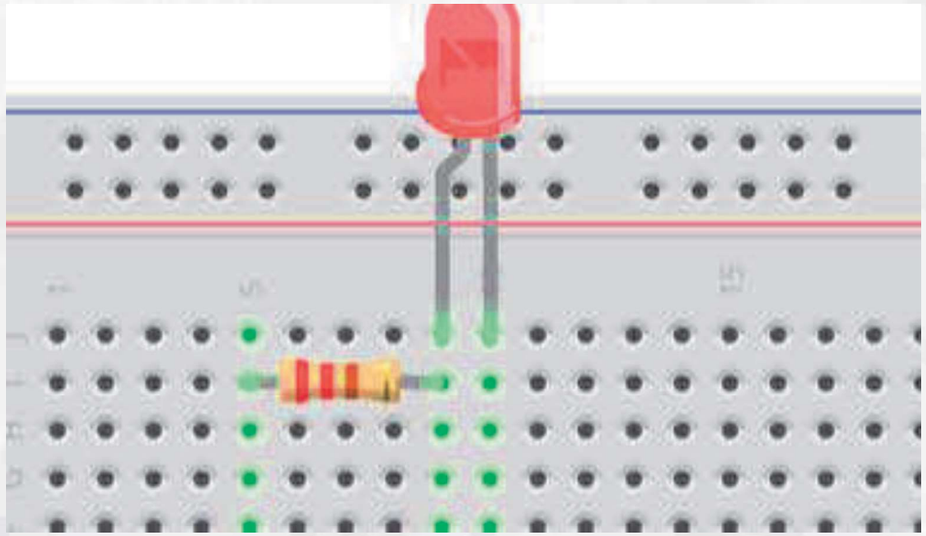
While studying for the licence, you will learn:

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



Breadboard

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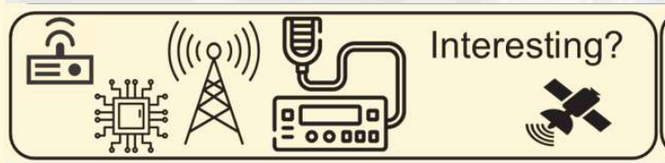

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Step 1

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

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.

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Step 2

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

ACMA 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

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Step 3

Once ACMA mark the papers, a certificate of proficiency will be issued by the ACMA to the candidate directly.

The candidate can then apply for a licence.

The candidate cannot operate a transmitter until the licence is issued.

ICOM IC 7300 Transceiver

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Once armed with your Foundation Licence.

- 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	

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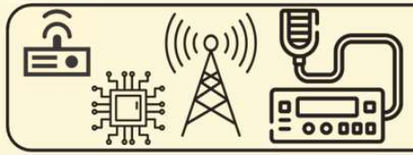

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Radio band	Distance & Coverage
3.5MHz (80 metres)	Typically up to 150KM during the day and up to 3000KM at night.
7MHz (40 metres)	Typically up to 1000KM during the day and during good conditions world wide at night.
21 MHz (15 metres)	World wide mostly 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.

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Still keen?

Get started.

Click back and start at Zero to Foundation

IMPORTANTLY

Have fun and stay safe

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

The Wireless Institute of Australia