

AMATEUR RADIO FACT SHEET

WHAT IS AMATEUR (HAM) RADIO?

It's an Experimental Non-Commercial Radio Communications Service

Experimental

Experimental means we can design, build, operate and modify all the equipment we use to communicate on the frequencies allowed by our licence conditions. This is a definite privilege in Australia that is not the case in other countries like Canada.

Radio Communications

It's a form of technical communication. This links with the experimental side of the hobby too. The regulations state that due to the international nature of our hobby all communication in relation to religious, political or of a culturally controversial nature are not to be transmitted on amateur bands. That leave us with discussions about those technical matters and general conversation that make up most of what you hear on the bands!

Non Commercial

Amateur radio is non-commercial, meaning we don't gain any financial benefit, it is a leisure and recreational activity. We get other benefits like:

- the challenge of getting something working like communicating through a satellite or a low power "QRP" transmitter;
- the pleasure from talking with like-minded people locally and internationally, nets, collecting contact "QSL" post cards, equipment, participating in contests and certificates;
- the self improvement and experience gained through operation of different equipment, modes and mediums;
- making contributions through experimentation to the fields of science, technology and engineering;
- the self-training and educational value; and,
- providing skilled personnel in emergency situations and community service with activities like Jamboree on the Air (JOTA) and Targa Tasmania.

Ham radio has many facets and therefore many opportunities.

We need to be licenced:

The Australian Communications Authority is responsible for issuing Amateur Radio Licences and supervising the standards of examinations. The Wireless Institute of Australia (WIA) Examination Service is responsible for syllabus setting, issuing and marking of examinations for Australian amateurs. Within Tasmanian there are a number of examination officers in each club who can administer an examination.

Examinations

Amateur radio examinations cover a combination of the following areas dependent on the licence grade:

- Electronics & radio communication theory (two levels dependent on licence grade required);
- Government radio regulations;

Not all examination elements need to be taken at the same time. Morse code was removed from examination requirements on 1 January 2004.

The REAST examination officer is Reg Emmett, VK7KK, email: regemm@ozemail.com.au, phone (03) 6248 6824.

Courses available

There are a range of options available to study for amateur radio examinations:

- Self study – there are many courses of study available through books, the Internet and CD-ROM; or,
- By completing correspondence courses; or,
- Study in a radio class.

Contact our Examination Officer, Reg Emmett for more details.

We recommend the Radio and Electronics School courses. More information can be found at: www.radioelectronicschool.com

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We operate on a wide range of frequencies

There are a range of frequencies allocated to the amateur service. These range from medium frequency (MF 1.8MHz) through (HF – 3-30MHz) and various frequencies up to extremely high frequencies (EHF – 25-250GHz).

We can operate using many modes

There are many modes available to radio amateurs to use on various bands. A summary of the main modes currently in use is found below:

- CW – morse code;
- ATV – amateur television;
- Space Communications – using satellites;
- Packet Radio – connecting computers to radios;
- Analogue voice modes & Digital computer modes;
- Earth/Moon/Earth & Meteor scatter – bouncing signals off the moon and meteors
- Repeaters/IRLP/Echolink – extending the range using radios and the using the internet to extend the range;
- QRP – low power communications;
- APRS – Automatic Position Reporting System;

There are many activities available to radio amateurs to use on various bands. A summary of these modes is found below:

- Experimentation/Designing/Building/Testing equipment;
- WICEN – stands for the Wireless Institute of Australia Civil Emergency Network. WICEN operators in Tasmania train by providing and operating communications infrastructure for events like Targa Tasmania and the Subaru Safari. The amateur operator not only provides equipment for emergency service but, more importantly brings skills and experience in radio theory and operation that can be used in the field to overcome communications problems.

- JOTA – Jamboree on the Air – Scouts and Guides;
- DX/DX Hunting – looking for and contacting those rare locations;
- Awards/Contesting – contacting other stations for points;
- Ragchewing – just talking to others on the radio;
- Mobile/Portable – operating from car, bus, train, plane;
- ARDF/Fox Hunting – looking for a hidden transmitter;
- Propagation Studies – how radio waves move through the atmosphere.

Radio and Electronics Association of Southern Tasmania Inc. (REAST)

Meetings are held on the first Wednesday of every month except January at 8pm in the Queen's Domain clubrooms. The clubrooms are the former OTC Marine Radio station at the very top of the Queen's Domain in Hobart.

There is also a social afternoon every Wednesday from approx 12:00 until 16:00 at the same venue. Everyone is welcome to visit, especially interstate and overseas amateurs. Come on in and tell us your favourite stories, hear ours, and we sincerely hope that you will leave Tasmania further enriched.

The postal address for REAST is: GPO Box 371, Hobart, Tasmania, 7001, Australia.

Phone: Intl: +61 3 6234 3553 National: (03) 6234 3553

For more information check the club website at: www.reast.asn.au

REAST is affiliated with the Wireless Institute of Australia (WIA), the national amateur radio body and more information can be found at: www.wia.org.au

Membership Cost

The current (October 2004) cost of membership to REAST is \$20.00.

Application forms and more information can be found on the REAST website at www.reast.asn.au