SKYWaves

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Whyalla Amateur Radio Club Inc. Quarterly Newsletter

10 Shack Safety Best Practices

Setting up an amateur radio shack can be an exciting and rewarding endeavour for radio enthusiasts. However, it is essential to prioritize safety to prevent accidents, injuries, or damage to equipment. Here, we discuss the top ten most critical safety aspects to consider when setting up and maintaining an indoor amateur radio station.

1. Electrical Safety

Electrical safety is paramount in any amateur radio shack. Ensure all electrical connections are secure and properly insulated. Use surge protectors to safeguard your equipment from power surges and invest in a high-quality power supply that can handle the demands of your equipment. Avoid overloading circuits, and always follow the manufacturer's guidelines for power ratings.

2. Grounding and Bonding

Proper grounding and bonding are crucial to protect both the operator and equipment from electrical faults and lightning strikes. Grounding your equipment helps to dissipate static electricity and prevents dangerous voltage build-ups. Use appropriate grounding rods and ensure all components are adequately bonded to a common ground point.

3. Ventilation

Adequate ventilation is necessary to prevent overheating of equipment, which can lead to fires. Ensure your shack has sufficient airflow, especially if you have multiple high-powered devices running simultaneously. Consider installing fans or air conditioning if natural ventilation is inadequate.

4. Fire Safety

Fire safety measures include having a fire extinguisher readily accessible and knowing how to use it. Avoid placing flammable materials near your equipment and keep your shack tidy to reduce fire risks. Regularly inspect power cables and connectors for signs of wear or damage that could potentially cause a fire.

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5. Ergonomics

Ergonomics may not be the first thing that comes to mind, but it is essential for long-term health and safety. Ensure your workstations are at a comfortable height and that you have adequate seating to prevent strain or injury. Poor ergonomics can lead to repetitive strain injuries and long-term musculoskeletal issues

6. Cable Management

Proper cable management is vital to prevent tripping hazards and to maintain a clean and organized workspace. Use cable ties and labels to keep cables neat and avoid tangling. Route cables away from walkways and ensure they are not pinched or damaged by furniture or equipment.

7. RF Exposure

Radio frequency (RF) exposure can pose health risks if not managed correctly. Follow the guidelines set by regulatory bodies such as the FCC to limit exposure. Use RF exposure calculators to ensure your station is within safe limits, and position antennas and equipment to minimize exposure to humans.

8. Personal Protective Equipment (PPE)

When working on installations or repairs, use appropriate personal protective equipment such as gloves and safety glasses. This is especially important when dealing with high voltages or soldering. PPE can prevent injuries from electrical shocks, burns, and other hazards.

9. Emergency Preparedness

Being prepared for emergencies is essential. Keep a first aid kit in your shack and ensure you know basic first aid procedures. Have an emergency plan in place, including how to shut down equipment quickly in case of fire or other emergencies. Regularly review and practice emergency procedures.

10. Regulatory Compliance

Adhering to regulatory standards and guidelines is crucial for safety and legal compliance. Ensure your equipment and installation meet the standards set by regulatory bodies like the FCC. This includes proper licensing, adherence to power limits, and following installation guidelines.

SUMMARY

Safety in an amateur radio shack should never be an afterthought. By adhering to these top ten safety aspects—electrical safety, grounding and bonding, ventilation, fire safety, ergonomics, cable management, RF exposure, PPE, emergency preparedness, and regulatory compliance—you can create a safe and enjoyable environment for your radio operations. Always prioritize safety and stay informed about best practices to protect yourself and your equipment.

Amateur Radio—What Is It...

For those involved it is fun, a way to learn and make new friends, a technical communications hobby or recreational activity that provides a true sense of personal achievement.

While we commonly hear about Facebook, YouTube and Twitter, long before they came along amateur radio was the world's first social media network and it continues to provide that role today.

While many talk on amateur radio, across town or around the world, radio amateurs also communicate in other interesting ways - more details later in this backgrounder.

There is also a serious side to it with radio amateurs providing emergency communications. When disaster strikes the telephone, mobile phone and internet connection often fail or are overloaded.

This aspect of amateur radio, that gives support to rescue, relief and recovery efforts and saves lives, was seen following earthquakes and tsunamis in recent years including those in China, Indonesia, Italy, Japan, Haiti and Chile.
The New York World Trade Centre terrorist attack on 11 September 2001, Hurricane Katrina 2005 and other major disasters have involved radio amateurs providing their skills and support.

In Australia emergency communications were provided in response to the Black Saturday bushfire disaster 2009.

That followed a tradition which began in the 1920's during tropical cyclones in Queensland, the Black Friday bushfires in Victoria 1939, and includes the New South Wales floods in 1955, Tropical Cyclone Tracy 1974, Ash Wednesday disaster 1983, Newcastle Earthquake 1989 and on numerous other occasions.

Around the world regular training occurs so radio amateurs can be prepared to use their skills when required.

30 Metres SSB and FT8

As FT8 activity continues to increase, there is not much room to move on 30 metres.

Back in 2017 the 30 metre band plan was modified to address an interference issue between CW and SSB operators. It was recommended that whenever possible, SSB activity should be within the segment 10.125 - 10.135 MHz.

In other words, whenever it is possible - and bearing in mind the time of day - preference should be given to filling this segment before spreading down into the CW segment, or up into the digital modes segment.

This has been working moderately well, but the issue has arisen again due to a further increase in FT8 activity. There are now three FT8 frequencies in use, and the lowest of these is 10.131 MHz. Unfortunately this clashes with the recommended SSB segment extending up to 10.135 MHz. To keep the two modes apart, it will be necessary for SSB stations whenever possible to keep clear of frequencies above 10.130 MHz. For USB operation, this means a dial (suppressed carrier) frequency no higher than 10.127 MHz.

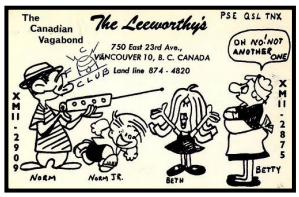
So the band plan has been revised to change the preferred (core) SSB segment to 10.120 - 10.130 MHz.

This is inconvenient for SSB stations, and for CW operators who also have to share the remaining band space with SSB. But there is no real alternative. The frequencies used for FT8 are internationally co-ordinated, so we cannot tell the rest of the world to move. The only way to avoid QRM is to avoid the frequencies where it is happening.

QSL Cards—Make Your Own...

www.radioqth.net/qslcards

You can use this web page to create QSL cards. The cards will be created in the form of a PDF document that you can then print on light-weight card stock. The individual cards can then be cut out and the information filled in and mailed to the intended recipient. You have the option of printing a single QSL card or printing up to four cards per page. The cards are printed 5.5 inches wide by 3.5 inches high. This is a standard size for a QSL card. Fortunately, since these are pdf files you can print them and have the page print with the fit to page option. This will slightly reduce the size of the cards and allow them to be printed on whatever printer that you have. This will allow you to make better use of any special paper you are using, assuming you don't mind having the cards slightly smaller than is normal.



USING MICROPHONES IN VEHICLES.

"Unlike Mobile Phones there is no legislation that prevents the use of CB radio or any other 2-way radio whilst driving. (See references below). However, there is legislation covering the proper control of a vehicle. So a driver could face prosecution while using the radio if it's use caused a distraction or affected the standard of driving. The more serious offense of careless or dangerous driving, causing death by careless or dangerous driving are also available to prosecutors if the distraction can be shown.

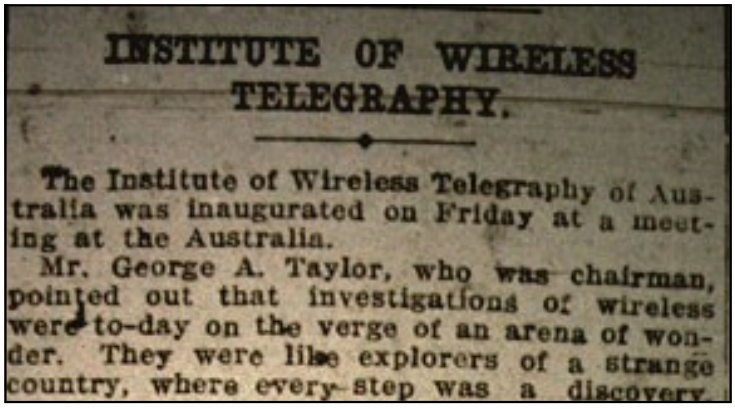
Use of a CB radio or any other 2-way radio while driving is not illegal as long as a user maintains proper control of the vehicle.

In SA: mobile phone does **not** include a CB radio or any other two way radio— [Australian Road Rules 2014, Rule 300, paragraph 4].

http://www5.austlii.edu.au/au/legis/sa/consol_reg/arr210/s300.html

As you can see, the key point is that you have full and proper control of your vehicle. The interesting grey area is what happens when using a handheld radio, especially when you consider the cameras now being used are using the latest technology to detect mobile phone usage in vehicles.

Organised Amateur Radio



INSTITUTE OF WIRELESS TELEGRAPHY.

The Institute of Wireless Telegraphy of Australia was inaugurated on Friday at a meeting at the Australia.

Mr. George A. Taylor, who was chairman, pointed out that investigations of wireless were to-day on the verge of an arena of wonder. They were like explorers of a strange country, where every step was a discovery.

On 11 March, 1910 a meeting of like-minded people in the Hotel Australia, Martin Place, Sydney, formed the Institute of Wireless Telegraphy of Australia, and soon after dropped the word 'telegraphy' from its name. Chairman of the founding meeting, George Taylor, proposed "the formation of an institution amongst experimenters and enthusiasts in wireless for their mutual benefit."

A similar organisation was formed in Melbourne - the Amateur Wireless Society of Victoria, on 30 November 1911 at a meeting attended by 50 enthusiasts. In 1913 it changed its name to the Wireless Institute of Victoria, and then became the Wireless Institute of Australia, Victorian Division. Then followed The Wireless Institute of Queensland (1912), the West Australian Radio Club (1913) became the Wireless Institute of Australia, Western Australia Section.

Source: WIA Web Pages

AGM Results for 2025/2026

The AGM was held at the clubrooms on 27 August, 2025 commencing at 7:30pm.

The club President, Roger Jordan VK5YYY welcomed all members and outlined the highlights of the year. Roger thanked all the members who helped with the club and for their contributions.

Elected positions are as follows:

President:	Roger	VK5YYY
Vice-President:	Debbie	VK5DCR
Secretary:	John	VK5NL
Treasurer:	Bevan	VK5BD
Committee 1:	Albert	VK5NAW
Committee 2:	Steve	VK5MSD
Committee 3:	Paul	VK5PY

Calendar of Events

November 2025

M	Tu	W	Th	F	Sa	Su
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

November		
05/11/25 (Wed)	WARC RMN Net Night	RMN
12/11/25 (Wed)	WARC Social Night	Social Night
19/11/25 (Wed)	WARC ZOOM Mtg	ZOOM
26/11/25 (Wed)	Club Mtg Night	Meeting
22/11/25 (Sat)	VK Shires Contest	Event
23/11/25 (Sun)	VK Shires Contest	Event

December 2025

M	Tu	W	Th	F	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

December		
03/12/25 (Wed)	WARC RMN Net Night	RMN
10/12/25 (Wed)	WARC Social Night	Social Night
17/12/25 (Wed)	WARC ZOOM Mtg	ZOOM
14/12/25 (Sun)	Club X'mas Lunch	Holiday
31/12/25 (Wed)	NO MEETING	NO MTG.

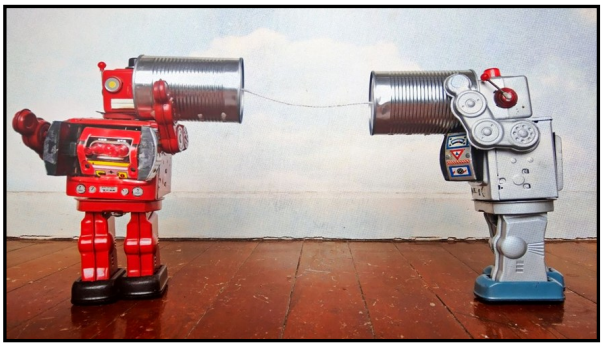
Find the Words

AIRWAVES
ALLIGATOR
BALLOON
COOTIE
COWTOWN
MAGNETIC
POLARITY
QUARTZFEST
RADIOSONDE
RESIN
SOLDER
SWAPNET
TRANSMITTER
UNIVERSITY
WINTER

H T Y T Z L R F R S T E P D Y
C A S R E E Y O L R G D O M K
P L C E T N T J A U B N L R X
M B L N F A P N U T O O A E Z
N A I U G Z S A E O U S R D E
Q W G I I M T G W T F O I L T
P G L N I H F R P S F I T O T
B L L T E W R J A O H D Y S Q
A P T L B T K E J U K A Q J B
N E C O O T I E S D Q R D A C
R N W O T W O C Y I I K L T Q
A I R W A V E S F Z N L R I B
Y T I S R E V I N U O A A Z D
V X Y V F N A C L O W W A K I
Z S R S H M J R N P H V Z A G

Artificial Intelligence! *Research by RMIT*

Let's investigate the impact of AI-powered bots on social media. Plus, proposals that spark a flurry of mis-information.



AI is creating more bots, and terrible conversations.

Online bots have become a fixture of the modern media landscape, used to sell products, shape public opinion and manipulate national elections.

Of course, bots — or automated programs that perform repetitive tasks — are nothing new, but they are more prolific than ever. By some estimates, they account for more than half of all internet traffic and 20 per cent of online chatter about global events. On social media, they are also getting harder to spot.
So what's behind the surge in bots, and what does it mean for our social media feeds?

Rise of the noisy bot.

Timothy Graham, an associate professor in digital media at Queensland University of Technology, said the arrival of new AI tools such as ChatGPT had meant bots could now be programmed cheaply and easily.

And rather than simply "parroting" content over and over, they can respond to people in a more conversational and realistic way. But this doesn't mean they have useful things to say. Having recently investigated a series of accounts posting about the Great Barrier Reef, Dr Graham found bots talking to each other in a loop of AI-generated chatter, producing misleading content without any concern for accuracy.

He said this kind of "bot babble" served to create the impression of a groundswell of support around an issue by flooding social media with content.

Dominique Carlon, a research fellow studying bots at Swinburne University of Technology, told The Repost that, thanks to bots, "You can no longer assume that what you see in the comment section is a reflection of reality or representative of wider public sentiment." At the same time, the presence of bots doesn't always signify something more sinister.

As Elise Thomas, a senior OSINT investigator at the Centre for Information Resilience, noted, most bots are there to make money, so when they comment on social issues, it's more likely because they have been programmed to target "hot topics" than to subvert elections, for example. "Anything that attracts attention online is going to attract bots," she said.

So what's the point of these bots?

Dr Graham posited that Lana was likely an attention-management bot, there to "make others feel like [the comments section] is a happening place".

Dr Carlon, meanwhile, suggested Lana could be a fame-enhancement bot, working alongside other paid bots to enhance the visibility and engagement metrics of other accounts. She said such networks can spread the risk of a fame campaign because if one account is detected, the others can remain active.

Alternatively, Ms Thomas said, the account might be a commercial bot seeking to establish an "authentic" pattern of life, after which it could be stockpiled for later use.

In an ironic twist, as humans increasingly use AI programs in their own lives, they may unwittingly help bots to become better at avoiding detection. "Increasingly, human users are adopting the phrasing patterns of AI programs such as ChatGPT in their posts and comments," Dr Carlon said.

"When humans copy and paste direct sentences from AI models or slightly rephrase them (or even subconsciously start to imitate them), the boundaries between automated and human content is increasingly blurred."

Faking Reality: How AI Images Are Being Used to Scam You

New tools mean new threats.

By Leo Nootenboom

Scammers take advantage of AI's ability to create fake photos that look very real. From phony images of your car to completely made-up situations, it's easier than ever to be fooled. Learn how they're made, why they're dangerous, and what you need to do to protect yourself.

Fake photos to scam you

AI can create fake photos that look real, and scammers are ready to use this to trick you. If an image shows something shocking or too perfect, think twice. It might be a fake made to fool you — perhaps even *specifically* you. You can't believe everything you see. Always be sceptical.

Son of Photoshop

I think we've all come to be slightly suspicious of photos because of the rise of Adobe Photoshop and similar tools. In the hands of the right person, Photoshop can generate amazing things, ranging from altering existing photos to creating "photos" of things and situations that never happened. With talent and time, a Photoshop artist can create just about anything.

Emphasis, of course, on both *talent* and *time*.

AI removes both of those requirements. The image below was created by asking ChatGPT:

> *Please create a 16:9 photorealistic image of a blue 2006 Kia Grand Carnival, registration number "VK5NL" parked in front of "The Golden Banana" strip club at night.*

Two minutes later, the image below appeared. It's plausible enough to pass for real to the casual observer.

Scammers know this.

Scammers don't have to extort you personally; perhaps they use fake images to sway public opinion. There's a range of uses:

- Photos in extortion attempts, no matter how realistic you think they look, are often AI-generated fakes. Scammers can use data discovered in breaches and elsewhere to create highly targeted scams, including bespoke images related to the targets of their scams.
- Photos on social media of someone doing something you'd never expect them to do are frequently AI-generated fakes.
- Sadly, photos from just about any organization with an agenda — political, social, or otherwise — are now often complete AI-generated constructions (or existing photos altered using AI) to reflect something that never really took place.

It's now trivial for anyone to create images that look real and are completely fake. Scammers, hucksters, and others with less than altruistic intentions are more than happy to use this new technology to fool us.

And fool us, they do, especially if the fake image is of something we want to see or confirms our pre-conceived ideas.

How to avoid getting fooled

It all boils down to paying attention, and that's very difficult in today's fast-paced, attention-grabbing world. Always do this.

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Be skeptical.

I can't emphasize this strongly enough. ***You must question everything, even — perhaps especially — if it appears to support what you already believe.***

When the scammers come calling, know that they have used information found in breaches and elsewhere to make their scams as legitimate-looking as possible. Don't be fooled.

Especially if you've never been to a strip club. (Or at least, not *that* strip club.)

The Lighthouse Caper & RD Contest

Aug 16th to 18th, 2025

On Friday, Aug 16 2025, Bevan and Steve, after

meticulous planning and organising, set off to the Point Lowly Light-house for the Annual ILLW weekend.

With antennas to build and radios to set up, they set to and soon were ready to hit the airwaves.

The first operating team was Steve VK5MSD and Paul VK5PY who were soon making contacts galore.

Bevan VK5BD and John VK5NL followed on as the second crew but with less success.

Hunger was kept at bay with the oversight of and many thanks to Jill. So much appreciated. By the time I left, Roger was seen preparing the ongoing feast with some delicious chicken and such. Of course not forgetting the cakes and goodies.

And with Steve "Volunteering" to make the coffee, how could this weekend be anything but a success, which of course it was.