



Darling Downs Radio Club Inc.

Newsletter

Toowoomba March 2024

CLUB INFORMATION

Postal address: PO Box 3257

Toowoomba QLD 4350

Email address

secretary@ddrci.org.au

Web Site: www.ddrci.org.au

EXECUTIVE COMMITTEE:

President Dougal Johnston VK4EKA

Vice President: David Curry VK4SP

Secretary: Theo Moller VK4ESK

Treasurer: Wayne Richter VK4ARW

STEERING COMMITTEE:

Sam Pascoe VK4SAM;

Cameron Scarvell VK4CSS;

Robert Hosking VK4FRH;

Bruce Boardman VK4MQ.

REPEATER COMMITTEE

Chairman Bruce Boardman VK4MQ

Members: Paul Stevens VK4CPS;

Cameron Scarvell VK4CSS;

Rod Webb VK4ZJ

Station Manager Theo Moller
VK4ESK

2 Metre Net Convenor

Kevin Crandell VK4VKX

80 Metre Net Convenor

Theo Moller VK4ESK

CLUB MEETINGS:

2nd Monday of the month.

Start 7pm.

First half hour business matters, then
social meeting incl a lecture.

Meeting place:

Community Venues, Level 3 City
Library

Victoria St. Toowoomba

CLUB NETS:

80m on 3.650MHz, Saturday 7.30pm

2m on 146.750MHz Toowoomba

Repeater. Sunday 10am

Other Regular Nets in the

Toowoomba area:

Monday: UHF Net on 438.025MHz
7.30pm

Tuesday: The new Horizons Net
on 147.050 MHz 7.30pm

Thursday: Scrub Turkey Net on
147.050MHz 7.30pm.

Friday: VK4 Friendship Net on
3.587MHz at 7.00pm



A note from the President

Summary of minutes for DDRCi

Management Meeting 12th February 2024.

There were 10 members and welcome to Ben as a visitor at the meeting. The previous minutes and correspondence were accepted, with RedFest noted as coming up on 6th April. The Treasurer Wayne reported the overall finances still above \$6300. Bruce as repeater Committee Chair has made up the brackets for the new VK4RDD 2 metre antennas and tested them, installation will be co-ordinated with Andrew.

For those interested, the new 10 metre repeater of Andrew Chapman on 29.680 (a CTCSS of 123 Hz needed on the input) is working near Crows Nest.

In General Business the DDRCi is still working on participating in the John Moyle Memorial Field day on March 16th, looking at our publicity effort, the name for the good newsletter edited by Len VK4BLZ, and looking for more to help add items to the web page. Terry noted Andrew is planning another repeater to go into the WAN located at Mt England near Goomeri.

After management business, Bernie vk4awj showed us his field strength meter and then a short video about the measuring of a coax feed line with a Nano NVA was enjoyed by all.

With the new ACMA Amateur Radio portal being set up with a limited amount of information compared to the RADCOM database, the WIA Board are currently considering the possibility of again producing an Australian Amateur Radio Callbook. Some hurdles such as copywrite and privacy concerns need negotiating and the format in which the callbook would be produced will need to be considered.

The ACMA will contact you 5 years down the track either by email or letter to make sure you are still alive and that you want to continue to operate with your call sign under the Class Licence system.

Non-assigned licences

From 19 February 2024, ACMA will no longer renew any non-assigned amateur licences.

If you have a non-assigned amateur licence, you can surrender it and operate under the class licence. Surrendered licences may be eligible for a refund.

If you want to keep your licence, you can operate under it until it expires. Conditions will continue to apply. Once it expires, you will be required to operate under the class licence.

CLUB REPEATERS.

Both VHF and UHF repeaters are co-sited and have the same call identifier: **VK4RDD** 146.750 Mhz, negative offset, no access tone required; **VK4RDD** 439.275 Mhz, negative offset, 91.5 Hz, access tone required. **VK4WID** is the club's call sign for all nets on HF, VHF and UHF, as well as all contests. Please note that during contests which conflict with our regular net times, the contest has priority over the net in so far as the club call sign is concerned. The nets will then be conducted under the convener's call sign instead of **VK4WID**.

Education

If you would like to register for a Foundation License Course, or contest any of the exam levels available, please contact Steven Dudley who may be contacted:

steve@vk4fi.net.au

Mob0403 910 087,

or you may also contact Philip Webb from the Border Ranges Club via email philip01@scisat.com

Assistance

Assistance to those in need. This radio club offers assistance to those in need of physical work involved in the maintenance of their antennas etc. If you require assistance, please contact the club secretary via email on secretary@drcl.org.au and we will organise your assistance.

Garden City Award.

The DDRC i also has an award worthy of adorning the walls of your shack. This is the Garden City Award. Please check the web page for details.

So many of us

At the start of this year (2024) there were 15,181 callsigns allocated within Australia. This is made up of 9,523 Advanced, 2,082 Standard and 3,576 Foundation operators.

Big battery advance

In announcing a breakthrough last year on the development of solid-state batteries, a major vehicle manufacturer claimed it will enable halving the weight, size and cost of current vehicular batteries. Toyota, the world's second largest car manufacturer plans to put its advanced solid-state batteries into production by next year and start rolling out cars including them by 2027. The new battery technology is claimed to offer significant benefits over liquid-based batteries such as lithium-ion and lead-acid types, particularly in attaining a charge time of under 10 minutes, reducing the fire risk, and enabling an EV range of 1200 km. To date, solid-state batteries have generally been more difficult and costlier to make, which has limited their uptake in commercial applications.

That type of battery in your hand-held should last you for years.



The Club's bi-monthly Lunch was held at the Southern Hotel on the 10th of February. Good food, good company and a good time was had by all.

Class License has started

From the 19th of February 2024 Amateur Radio in Australia has permanently changed to a Class License system. With this change the ACMA has assumed the management of Amateur Radio call signs and oversight of all Exam Assessments.

This is a significant moment in the history of our hobby. For those of us who are already licensed and operating, the effects will be minimal.

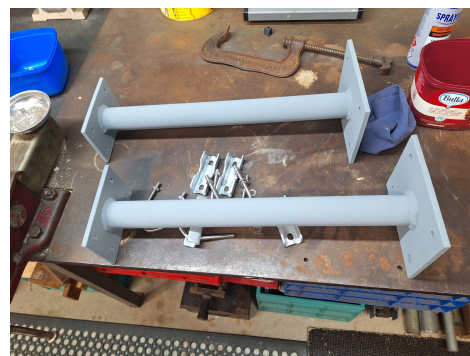
For new participants this change brings free exams via a new Assessor network.

By now all established callsign holders and clubs should have received a letter from the ACMA. Some of the text within the letter has confused operators about what they should do next, but the essence of that message comes down to the following points:

- * If you already have a call sign, you don't have to do anything, just continue to operate.
- * Existing operators will not have to pay any future fees in order to operate their station.
- * The same applies to any current Club callsigns
- * If you paid your last renewal after December 9, you may be entitled to a partial refund.
- * The bands, frequencies and power levels you are entitled to use have not changed
- * Your legal ability to construct your own radio equipment, or report interference has not changed.

The new VK4RDD 2m antenna.

The manufacturer that Bruce (VK4MQ) had tried to line up to make the mounting brackets for the new antenna for the 2 metre VK4RDD had not produced them. Hence Bruce picked up the antennas and acquired some materials and made them (the brackets) himself. He assembled and tested them in the back yard.



When you have mismatch between the feed-line and the antenna, part of the power feeding the antenna system reflects back toward the tuner and the transmitter. The part of the power going toward the radiating part of the antenna system is called forward power. The part reflected back down the feed-line is called reflected power. The larger the mismatch the larger the reflected power will be. If the feed-line and antenna are not matched, waves traveling toward the radiating part of the antenna system meet the waves being reflected back down the feed-line. The waves interfere with each other, and at certain points along the feed-line, the amplitudes of both waves combine. This will result in a current maximum to be found at that point; and at that point, the current will appear to be standing still.

The length of feed-line and the frequency will determine where this point occurs. At another point, the forward and reflected waves interfere, and they subtract from each other. At that point, there will be a current minimum. If you could visualise this phenomenon, you would see a series of current maximums and minimums standing still along the feed-line. This is why we refer to them as standing waves. At different points along the feed-line, where you have high current, you will have low voltage, and where you have low current, you will have high voltage.

At any point along the feed-line, multiplying the voltage times the current will equal the power in Watts. When the feed-line is matched to the antenna, current and voltage remain the same all along the feed-line because there is no reflected current to interfere with the forward current. As happens with the current, the voltage will also appear to be standing still.

The voltage maximums and voltage minimums will not be at the same locations as the current maximums and minimums. SWR is the ratio of the maximum voltage to the minimum voltage on the line. It is called "Voltage Standing Wave Ratio" or VSWR, but we shorten it to just SWR.

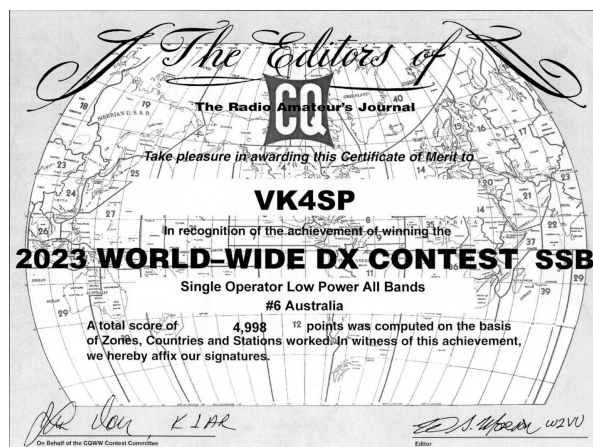
There is also a current SWR or ISWR, and it is the same value as the VSWR. For example, if the standing wave voltage maximum is 200 volts and the minimum voltage is 100 volts, the VSWR will be 2:1.

If the voltage maximum and voltage minimum are equal, the SWR will be 1:1. If the voltage minimum is zero, the SWR is infinite.



These 6 CW keys are believed to have been made by student at Bendigo Tafe many years ago.

They were in a collection of an old HAM/PMG worker (SK) and ended up in another collector's cabinet. They now reside in the cabinet of Warren Fritz VK4FJ who have spent many hours checking and polishing them to their full glory. Thank you to Merv VK4EM for forwarding the picture



Congratulation to Dave for his excellent effort.

REDFEST 2024

Saturday 6th April 2024.

Greetings from the Redcliffe & Districts Radio Club VK4RC.

Right here in South East Queensland!

We'll hold our Hamfest on:

Saturday the 6th April 2024 at 9:00am.

Please mark the date in the calendar on
your mobile phone.

Email: redfest@redclifferadioclub.org.au

You'll find us at St. Michael's College, Caboolture. On the Bruce Highway,
take Exit 152 and then Bribe Island Rd. Turn left at Old Toorbul Point Rd.

St Michael's College is well sign posted on the right.

On site parking.

BREAKFAST is served from 8:00am. REDFEST opens at 9:00am. \$5 Admission.

Don't forget to grab some raffle tickets

VENDORS: Book your tables anytime as of now.

\$10.00 per table. Vendors are admitted free.

VENDORS: Please arrive before 7:00am.

For Table Bookings Email: redfest@redclifferadioclub.org.au

Raffles drawn at 10:30AM.

Go to: www.redclifferadioclub.org.au We're also on Facebook.

It'll be a good day out. We look forward to seeing you.



Darling Downs Radio Club Inc

Meeting and Talk 2nd Monday only

Management Committee Meeting

March 11th 2024 7:00 pm

Community Rooms Level 3

Toowoomba Library, Victoria St



If you have any matters to raise please
bring them to the attention of
the Management Committee
or Steering Committee members
For March a short video and
some other bits and discussion
over a cuppa

Get that antenna outside and keep RF exposure down !

A Big Signal QUAD



VK6MJM is an LF/MF station located 300 km south of Perth at Manjimup, at the site of the town's de-commissioned aeronautical non-directional beacon, the morse ident of which was MJM.

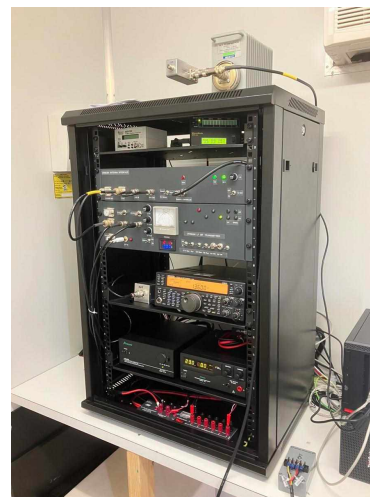
Early station operations have been block campaigns, supported with on-site personnel, but as of August 2023 remote operation via 4G internet is now in place.

Initial Operation

The first on-site operation of VK6MJM was conducted in the period 27-30 April, 2022. During that time most NDB equipment was removed, although the antenna coupler was retained and tuning verified on 630 m and 2200 m. First operations were confined to 630 m and the WSPR mode. About 5000 spots of the first from any VK6 station and, significantly, the signal-to-noise reports from well-known VK and ZL stations were notably better than those normally received by the few VK6 stations active to date on 630 m.

More info at

<https://www.qrz.com/db/VK6MJM>



Above: Equipment arrangement, August 2023. The homebrew transmitter in the centre of the rack contains the Zachtek WSPR exciter and two power amplifiers (one each for LF and MF). The main station multi-mode exciter and receiver is a Kenwood TS-590S transceiver; on the shelf above the power supplies. To the right of the rack is the hand-held remote variometer tuning control.