Darling Downs Radio Club Inc.

Newsletter

Toowoomba November 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: David Toal **VK4JPS**
Vice President:David Curry **VK4SP**
Secretary: John Maizels **VK4JPM**
Treasurer: Cameron Scarvell **VK4CSS**

STEERING COMMITTEE:
Sam Pascoe **VK4SAM**;
Rod Webb **VK4ZJ**
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**

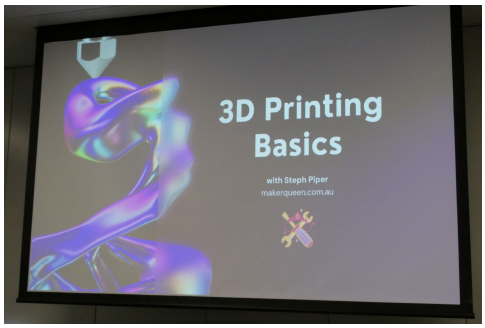
CLUB MEETINGS:
2nd Monday of the month.
Start 7pm.
First half hour business matters, then social meeting incl a lecture.

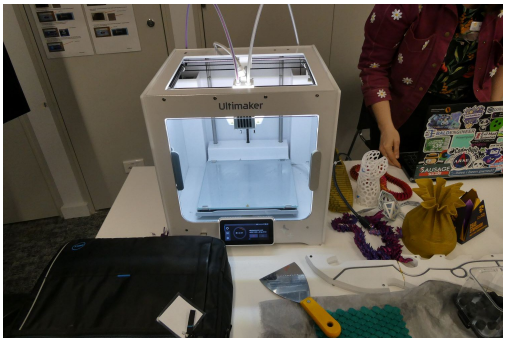
MEETING PLACE:
Community Venues, Level 3 City Library
Victoria St. Toowoomba

CLUB NETS: using VK4WID
80m on 3.650MHz, Saturday7.30pm
2m on 146.750MHz on VK4RDD
Toowoomba Repeater Sunday 10am

OTHER REGULAR NETS:
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

At the October meeting we had the pleasure to welcome Steph Piper when she came along to demonstrated how to use a 3D printer to make various items that could be useful in our hobby.





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ACMA publishes outcome of consultation on amateur repeater and beacons assignment process

On 24 June 2024, we opened a consultation on introducing more options for the amateur community to licence repeater and beacon services. We also wanted to increase the transparency of the frequency coordination process.
The consultation closed on 5 August 2024. We received one submission, which was supportive of the process proposed.
We have now published frequency assignment practice 10 and radiocommunications assignment and licensing instructions (RALI) AA1, AA2, AA3 and AA4.
We thank all those invoved in the consultation process.

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 are interested in Getting
a new Licence (Foundation),
or Upgrading you existing Licence
to a Standard or Advanced
you now have access to our
very own Club Assessor VK4JPS.
Did you know you can go straight
to a Standard or Advanced licence?
What are some of the Reason you
might look to upgrade?
More Power?
More Bands?
Personal Challenge?
General Increased Radio Knowledge?
Contact Dave on 0431335184
or via email: vk4jps@gmail.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@drci.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.

Scientists finally confirm that solar maximum is well underway — and the worst could still be to come

published October 17, 2024

A surprise announcement from scientists involved in monitoring the solar cycle has finally confirmed that the sun's most active and dangerous phase — solar maximum — is already well underway, and could continue for at least a year.

The explosive peak in the sun's roughly 11-year cycle of activity, known as the solar maximum, is already well underway, scientists have announced. While many experts suspected that this was the case, the official confirmation comes as a big surprise given that researchers normally hold off on making such announcements until after this active phase starts winding down.

Representatives from NASA, the National Oceanic and Atmospheric Administration (NOAA) and the international Solar Cycle Prediction Panel (SCPP) made the announcement on Tuesday (Oct. 15).

The groups confirmed that the solar maximum has already begun and suggested that it may have started as early as two years ago, long before initial solar cycle forecasts had predicted. The scientists also noted that solar activity will likely remain high for around another year.

"This announcement doesn't mean that this is the peak of solar activity we'll see this solar cycle," Elsayed Talaat, director of space weather operations at NOAA, said during the announcement.

Solar activity could still increase in the coming months, bringing more vibrant aurora displays and potentially damaging solar storms to Earth, he added.

Many scientists not involved with the SCPP already speculated that solar maximum had begun earlier this year. However, SCPP researchers normally wait until months after solar activity starts to ramp down to announce exactly when a solar maximum began. The unusually early announcement may have been prompted by a series of extreme space weather events over the last few weeks and months.

In December 2019, when the current solar cycle (Solar Cycle 25) began, the SCPP predicted that solar maximum would likely start around 2025 and be relatively weak compared with past cycles, much like the previous maximum during Solar Cycle 24, which peaked between 2011 and 2014. However, it soon became apparent that these initial predictions were inaccurate when signs of solar activity, such as sunspot numbers and the frequency of solar flares, began to sharply climb in late 2022 and early 2023. In June 2023, Live Science was one of the first major media outlets to predict that the solar maximum would arrive earlier and be more active than initially expected. And in October last year, SCPP scientists released an unprecedented updated forecast predicting that the solar maximum could begin in early 2024.

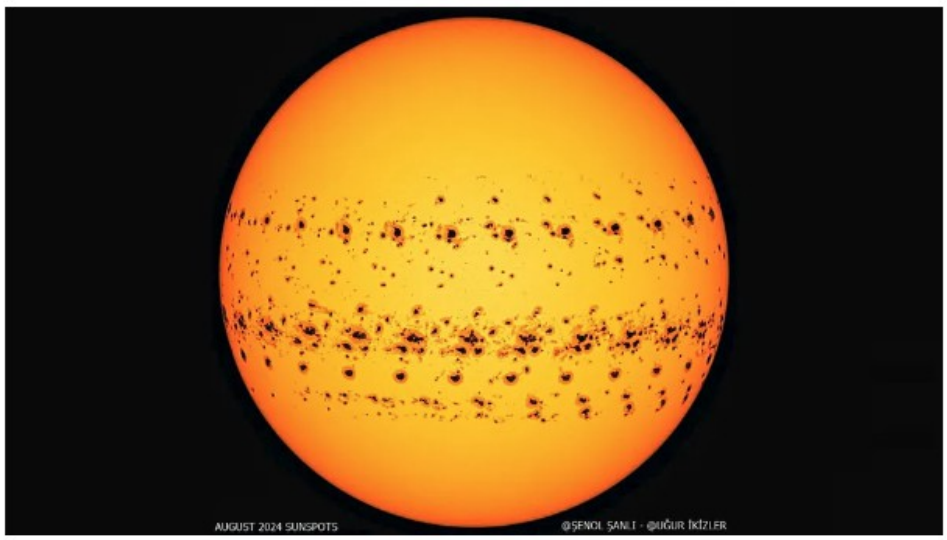
Solar activity "has slightly exceeded expectations," Lisa Upton, co-chair of the SCPP, said during the most recent announcement. But the solar activity is not out of character for a typical solar maximum, she said. However, 2024 has already demonstrated some potentially record-breaking levels of solar activity. For example, in August, the number of visible sunspots on the solar surface reached a 23-year high, including the highest daily count since 2001.

The number of X-class solar flares — the most powerful explosions the sun can produce — has also exceeded any other year on modern record (since 1996), according to SpaceWeatherLive.com. The most powerful of these solar outbursts was an X9 magnitude blast on Oct. 3, which was the most explosive flare since 2017.

Solar flares can launch clouds of plasma and radiation, known as coronal mass ejections (CMEs), at Earth. These can trigger geomagnetic storms, or disturbances in our planet's magnetic field, which can paint the skies with auroras. In May, a barrage of CMEs triggered the most intense geomagnetic storm for 21 years, leading to one of the most widespread aurora displays in the last 500 years. Several other "severe" geomagnetic storms have also hit our planet this year, most recently between Oct. 10 and Oct. 11.

Time will tell if solar activity will reach even greater levels in the coming year. But there is a chance that even more powerful solar storms, on par with the 1859 Carrington Event, could strike our planet, potentially impacting ground-based infrastructure, triggering widespread radio blackouts and causing satellites to tumble back to Earth.

Harry Baker



The number of visible sunspots in August was the highest since September 2001. This time-lapse image shows them all moving across the sun. (Image credit: SDO/Şenol Şanlı/Uğur İkizler)

JOTA/JOTI report from Cameron and Dougal October 2024

Dougal and myself attended the Guids Unite JOTA/JOTI on Saturday at Goombungee and set up the club trailer with 20m, 40m and 15m dipoles. Interest from the girls was high with some even having a second turn at talking to other guides in Brisbane and Canberra. Overall the day was a success with groups of 20 girls filing through at a time to try their hand at HF radio. VK4CSS

On Saturday 19th October Cameron (VK4CSS) and myself turned up at the Guides Units camp at Goombungee about 8:00 am. By 9:30 am the club trailer was set up under the trees with 40, 20 and 15 metre dipole antennas hung up in the trees. It was a very windy day and there would have been a fair bit of wind noise transmitted.
By the end of the day the Guide Leaders reckoned we had put more than 70 Guides on the microphone to other Guide camps and stations. Cameron stayed all day and helped with operation and then pulling things apart after 5:00 pm, many thanks.

Dougal VK4EKA

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As the Club's Treasurer, Cameron reports that the Club's finances are doing well with $1340.01 in the S21, $4574.77 in the S26 and $100 in the S13 accounts.

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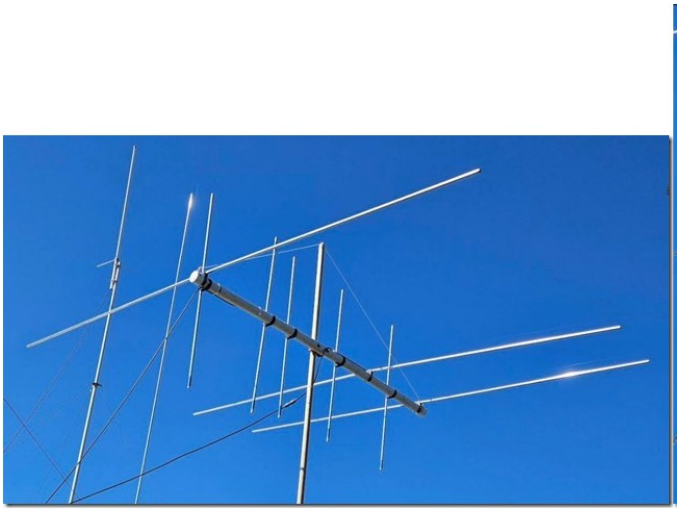
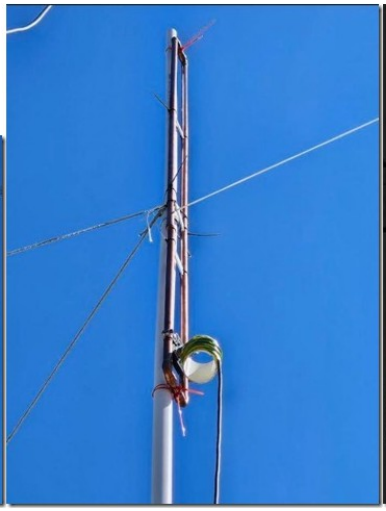
Some pictures from Gold Coast Ham Fest on Sunday 13th October 2024

Several members from our Club went to the Ham Fest and had a great day meeting up with friends and maybe picking up a bargain or two at one of the stalls.

I'm Dion and I have an antenna problem

In recent weeks I've contracted a debilitating condition: antenna building addiction. It all started when I was getting sub-optimal signal reports from fellow hams on the Sunday morning VK4RDD nets. Not terribly surprising that a store-bought vertical wasn't really making the 200km+ hop to Toowoomba but I wondered if I could do better?
With some persistent encouragement from one VK4EM, I embarked upon building a 5-element yagi for 2m. My first attempt, using Merv's dimensions, worked better than I could have expected except that the wooden boom was a bit top-heavy on the mast. Let's just say that, when the wind picked up, I was expecting insurance claims (or lawsuits) from the neighbours.
Unperturbed, I just dropped the mast down a bit and thought I'd just try it for a while. It worked exceptionally well with consistent S4+ signal strength into VK4RDD.
Then I became aware of a new ham needing a decent antenna, so I loaned him my 30 year old VK4EM-brand J-Pole to get him on-the-air. That meant I didn't have a second antenna for the Saturday evening Sunshine Coast RC SSTV net; which is rather necessary for SSTV nets by the way. Consequently, a copper pipe Slim Jim was soon in the offing. My first experience with soldering using a blow-torch was not for the faint hearted but the SWR was great once my fingers stopped burning!
Somewhere along the way, I got intrigued by meshtastic, so a cute little 1/4-wave droopy for 915MHz materialised. Thereafter I became aware of two teenage Foundation hams who were mad keen on radio but they were trying to make 2m and 70cm contacts using handhelds and UHF CB antennas. Queue the flowerpot building phase. Once both these whipper-snappers took home a working dual-band 2m/70cm flowerpot.
Merv's persistent nudging about a dual-band yagi finally came to the fore. Having "acquired" a suitable boom thanks to the Brisbane City Council kerbside pickup, I set to work creating a monster: 3 elements on 6m sharing a boom with 5 elements on 2m.



Fortunately my trusty 3D printer was up to the challenge of making the boom attachment brackets. The result was something only a mother could love, but it works admirably well on both 2m and 6m!
Cheers, Dion VK4DKW

KiwiSDR Explainer: The KiwiSDR is a particular make of a software-defined radio (SDR) receiver that works in conjunction with an "embedded" computer, along with an internet connection, enabling online access to the receiver system covering 0-30MHz. Through these online KiwiSDRs, you can listen to any of the communication services reaching their antenna/s. Only the antenna system configuration might limit performance across some parts of the spectrum.
Worldwide, more than 700 KiwiSDRs are online, and growing, with over 30 in Australia alone.
Some are public, others for private access. You can access a publicKiwiSDR with HTML-compatible web browsers, including Firefox3.5, Google Chrome3.0, Opera10.5, Safari3.1 etc.