

In the news from Amateur Radio New South Wales for this week;

Later in this bulletin, we have a summary of on-air activities from both Sydney, and across New South Wales. We would welcome any updates from club and groups; simply email news@arnsw.org.au – we don't need full items, just the details of the activity and contacts. Don't forget, we always welcome reports on the outcome of recent activities, as well.

General enquires can be directed to the ARNSW office via email, to office@arnsw.org.au, or by leaving a phone message on 02 9444 0123.

VK2WI news bulletins are streamed live from our website, arnsw.org.au/audio, and recordings of previous bulletins are also available.

Tonight, we welcome listeners on the EchoLink "HAM" conference, and the Australian & New Zealand EchoLink Network. Callbacks will also be taken after tonight's bulletin; our thanks to John VK3HJQ, and the Australian & New Zealand EchoLink Network team, for making this relay available.

[Play File: 14-E-ID1.wav]

HF Antenna Day – part two...

Continuing with our presentation program for 2024, members of Amateur Radio NSW are invited to the second part of our HF antenna presentation. Its starts at 10am on Sunday the 28th of February 2024, here at VK2WI Dural.

This event will feature presentations of interest for all levels of expertise, and a further range of specialist presenters. It's an opportunity to;

Gain insights into portable operation;
Learn techniques and strategies to enhance your home station;
And connect with specialists, eager to assist and guide others.

The event is catered, and RSVP are essential for seating and catering purposes – we are not able to admit 'walk-ins' on the day.

Places are limited, so reserve your spot now by emailing events@arnsw.org.au, including your name, callsign and contact information.

*Advised by AI VK2OK
Event Co-ordinator for ARNSW.*

Weekly Solar and Geophysical Report

For the period of the 8th to the 14th of March.

First, the summary of activity;

Dates across the columns are	8 th	9 th	10 th	11 th	12 th	13 th	14 th
10cm Flux	129	135	127	127	131	128	127
Fredericksburg A-Index	9	11	6	4	4	7	7
Australian A-Index	7	7	5	3	4	7	5 estimated
T index	111	123	130	126	121	130	106

Solar activity reached R1 on the 8th with an M1.3 flare, R2 on the 10th with an M7.4 at 1213UTC, and R1 on the 14th with an M1.0 flare. Low to moderate activity was observed on other days. Geomagnetic activity remained below warning threshold.

F2 critical frequencies in Southern Australia were mostly near predicted monthly values. Enhancement of 15% was observed during local night of the 10th, and depressions of 15% were observed during local day on the 14th.

The forecast, issued on the 15th of March, through until the 21st;

Solar activity is expected to be at R0 levels, though Active region AR3590 may return to the solar disk after the 16th, bring a chance of higher flare activity.

Geomagnetic activity is expected to remain low.

Maximum usable frequencies are likely to be near predicted monthly values, with a chance of shortwave fadeouts from the 16th if solar flare activity increases.

Data courtesy of the Australian Space Weather Forecasting Centre.

Solar Flux Index update

Here are the updated Solar Flux Index (SFI) figures for this week.

Having finished February, we had a;

Minimum of 136, Average of 172, and a Maximum of 208
With peak dates from the 6th to the 16th, and the 23rd to the 26th

So far for March, we are expecting a;

Minimum of 127, Average of 139, and a Maximum of 164
With peak dates from the 1st to the 6th, and the 19th to the 22nd

And looking ahead to April, we are expecting a;

Minimum of 118, Average of 131, and a Maximum of 142
With peak dates from the 17th to the 24th.

Update with thanks to Noel, VK2FUL.

[using daily data updates from :
<http://www.swpc.noaa.gov/products/usaf-45-day-ap-and-f107cm-flux-forecast>]

Technical Feature

Continuing with our series, introducing various aspects of DMR... tonight, Matt VK2FLY introduces how to get on air with the VK-DMR network.

[Play File: 15-TF-DMR6.wav]

Duration: 4m55s

In: The VK-DMR Network ...

Out:....reliably with other users.

[Transcript]

The VK DMR network is the most prevalent DMR network in Australia. So, I thought I would discuss some of the on air operating procedures and protocols. In a further episode, I will discuss the dreaded code plug and how to configure your radio, but for now let's concentrate on how the talk groups and time slots work and how to operate on air.

The easiest way to get on air is by using a local repeater, and there's no shortage of them in VK. In NSW alone, there are 24. You can find the frequencies on the VKDMR website. We are going to assume your radio is configured for your local repeater and it's in range.

You can easily tell if a repeater is in range of your radio. As I'm sure you remember from when we began this journey. There is the two-way handshake between your radio and the repeater when you key up. Most radios will give you a series of beeps when you key the button. However, these beeps are not random tones. They are a clear to transmit indication. They tell you your radio is in range of repeater and radio are in sync, and the repeater is waiting for you to transmit audio.

Most radios will also relay an error tone if the repeater is out of range. So, it's best to familiarise yourself with these tones depending on your radio. On the VKDMR network, tune your radio to talk group 505, time slot 2. This is the Australia wide calling talk group. A call on this talk group can ease up every repeater and every hotspot in Australia.

Every DMR radio, likely many hundreds of them, will open its squelch and relay your audio. Your call sign and name will also appear on all the radios listening. This happens even with a quick ca chunk, so ca chunking over and over to see if you're in range is frowned upon. And in a lot of cases, it's unnecessary, as a correctly configured DMR radio will usually indicate on the screen if you are in range of a repeater.

So if you're on 505 and ready to go, why not start with a CQ, or requesting a radio check? Typically, someone will reply, Remember, if you're asking for or giving a radio check, only your audio quality is useful. Signal strength means nothing on digital DMR. It either works or it doesn't. So, radio checks should be limited to audio quality and where there are any breakup or other noises.

I simply like to stick to a simple 1 to 5 readability scale. It's also useful if you have a computer or tablet handy to have the VKDMR dashboard up when you're making your first calls. The dashboard will show all the repeaters on the network, and all the current transmissions. When you make your first call on 505, you will note that the dashboard will indicate green on your local repeater, indicating your call is being received.

An orange on all the other repeaters to indicate they are transmitting your message across Australia. Once you have established contact on 505 and if you want to continue the conversation longer than a quick exchange, the administrators of the VKDMR network request that you QSY to another vacant talk group to continue the conversation.

These are called TAC talk groups and are in the range from 3801 to 3810 on time slot 1. This frees up 505 for another user to make a call. Once you have QSYPed to another talk group, the network will automatically

route your call between two or more repeaters when that talk group is selected. So only those repeaters with active users on that talk group will be engaged in the conversation.

The rest of the network remains free for other conversations. This is the power of the DMR network, to provide massive capacity for intercommunications simultaneously. Once you have finished your QSO on one of the available TAC talkgroups, all you need to do is QSY back to 505. The network will automatically remove the links between repeaters when they have remained idle for longer than 15 minutes.

It's mostly just that simple. Call on the call channel, make a contact, QSY to a vacant talk group and continue the QSO. No matter what the repeater or what part of the country you're in, the network does all the heavy lifting for you. Whether you're in Port Macquarie or Port Melbourne, it's all exactly the same.

A universal resource for radio amateurs in Australia to communicate at will and reliably with other users.

Don't forget to join us next Sunday night, when Matt tackles... the horrors of the dreaded "code plug"...

[Play File: 16-E-ID2.wav]

Foundations of Amateur Radio

This series, written and produced by Onno VK6FLAB, continues a weekly examination, of the building blocks of Amateur Radio.

[Play File: 17-FOAR097.wav]

Duration: 4m26s

In: The hobby of...

Out: ...I'm Onno VK6FLAB

For more information about this series, including audio, transcripts and other useful amateur radio resources, Onno's website is; vk6flab.com; and you can contact Onno by email, to cq@vk6flab.com.

[WICEN News]

And now with this week's WICEN News, here's Richard VK2SKY;

[Play File: 18-E-WNS0317.wav]

Duration: 1m29s

In: WICEN holds meetups...

Out: ... at wicen.org.au

[Transcript]

WICEN holds meetups here at Dural on the first Sunday of every month; the next one is on 7 April. VRA Rescue NSW recently announced the establishment of a new "State Rescue Group - Metro Squad". So, VRA's Wayne Dreghorn will present an information session about the new squad and the implications for WICEN. All members are encouraged to attend.

WICEN nets take place every Sunday evening, using FM voice, DMR, P25, or HF voice, depending on the week. All WICEN members and other Amateurs are welcome to call in.

Next Sunday, the 6pm net will be on the Chatswood 2m FM repeater, 147.150MHz, with net controller VK2WIC; the 6.30pm net will be on WICEN's Kurrajong VHF DMR repeater, followed at 6.45pm by a net on WICEN's VRA P25 repeater.

WICEN NSW is a support squad of VRA Rescue NSW, specialising in tactical radio communications. In between activations, WICEN supports local community events: these provide practical training for members, and help raise the public profile of Amateur Radio.

To find out more, check out the WICEN NSW web site, at nsw.wicen.org.au

WICEN is also on Facebook, and on X; there, you can find photos and information about recent and upcoming WICEN activities. Links are in the text edition of this news.

For information about other WICEN groups around Australia, visit the web at wicen.org.au.

[Memory Walk and Jog Events: <https://www.memorywalk.com.au/find-an-event>]

[WICEN NSW web site: <https://nsw.wicen.org.au/>]

["National" WICEN on Facebook: <https://www.facebook.com/groups/124735400158>]

[WICEN NSW facebook at <https://www.facebook.com/WICENNSW>]

[WICEN NSW X at <https://twitter.com/wicennsw>]

Club News

We start this week with news from the Oxley Region Amateur Radio Club.

The Club's April general meeting will be at 2pm on Saturday the 6th of April, at the SES building in Port Macquarie.

It is now time to plan to attend the Club's 48th Annual Field Day. It is at the Wauchope Showground Hall on Saturday and Sunday the 8th and 9th of June, during the Kings Birthday Long Weekend. The Field Day Dinner will be at Port Macquarie Golf Club on Saturday night. Don't forget to book accommodation early, as the area is a very popular holiday destination during the Long Weekend. It is possible to camp at the Wauchope Showground in your tent, caravan, or motor home; more details are on the Wauchope Showground website.

The next Foundation Licence training and assessment weekend will be held once the new arrangements with ACMA are in place. Candidates for the Foundation Licence and for assessments for all grades of licence can register their interest via the contact form on the ORARC website.

There are two club nets each week; the mid-week net from 7:30pm on Thursday nights, and the weekend net at 9am Sunday mornings. Both are on the VK2RPM 2 metre repeater, 146.7MHz with a 91.5Hz sub-audible tone for access, and on EchoLink as VK2RPM-R. Members and visitors are encouraged to participate in the club on air nets as often as possible.

For more information about the Oxley Region Amateur Radio Club, visit the website at orarc.org. The site contains a wealth of Amateur Radio items in addition to club information. The January 2024 issue of the club's bimonthly newsletter "Oxtales" is now online, and past issues are on the website as well. The club is also on Facebook; just search for Oxley Region Amateur Radio Club.

*From Henry VK2ZHE
For the Oxley Region Amateur Radio Club.*

Westlakes Amateur Radio Club

February's car boot sale was washed out; but, to make up for it, there's another coming up on Saturday the 20th of April. As usual, its at the club grounds, 6a York St, Teralba.

There will be bargains to be had, and you can also sell your pre-loved gear. The BBQ, raffles and the hot coffee van will be on site.

All are welcome.

2024 is the Club's 60th birthday, and special event station VI60ATZ will be operating throughout April – including at the car boot sale. Westlakes also has several on air nets each week, details are a little later on in this bulletin.

*Advised by Barrie VK2QG
For the Westlakes Amateur Radio Club.*

[Play File: 19-E-ID3.wav]

Central Coast Amateur Radio Club

The club rooms at Kariong are open on Saturdays from 10:30am, and as always, members and visitors are most welcome.

The March show and tell is a week earlier to avoid clashing with Easter. Its on next Saturday, March 23, with the theme “It looks the same, but is it?” All are welcome to bring along your projects, or just something you are passionate about to share with like-minded enthusiasts.

At the VK2RAG Somersby repeater site, the 6-metre repeater, D-Star, Rad-Net DMR and 2m EchoLink, 70cm and 23cm, are all fully functional. The WICEN UHF MMDVM is still having problems.

The Somersby WebSDR is online at websdr.ccarc.org.au; its configured to listen on 6 metres, 2 metres, 70 centimetres and 23cm.

The Club’s Weekly net is on Thursday Nights at 8pm. It’s on the VK2RAG 2 metre repeater – 146.725MHz with a 91.5Hz sub-audible tone, and on the CCARCNSW and HAM EchoLink conferences. It is also live video-streamed on the club’s Facebook page.

You can find out more about the CCARC, including information on upcoming social events and all the details we can’t tell you about here; on the web at ccarc.org.au – by phone, 02 43402500 – or social media, search Central Coast Amateur Radio Club; remember to “like” to follow for updates.

73 Alan VK2MG

Publicity Officer, Central Coast Amateur Radio Club.

Blue Mountains Amateur Radio Club

The next meeting of the Club's is on Friday the 5th of April at the clubrooms, 4 Moore Street Glenbrook, in the Blue Mountains – doors open from 7pm.

April's guest speaker will be Russell Bryant; an all-round radio scanner aficionado, who will give us the benefit of his broad experience in the field from simple systems to the modern complex devices seen today.

The clubrooms are also open twice a month from about 10am, on the morning of the first and third Saturdays – unless otherwise noted on the Club's Facebook page.

Visitors and prospective new members are always welcome.

The Clubs has several weekly nets – we have details in “Activities on the air” later in this bulletin – and a new net time, Sunday nights at 8pm. On the 1st and 3rd Sunday of the month, the net is on the Club's 6 metre repeater, and on the 70cm repeater on the second and fourth Sunday.

The next Foundation Class will be on Saturday the 13th of April. Upgrade classes continue on Wednesday nights, both on Zoom and in-person at the Glenbrook clubrooms.

With a 98% pass rate, the Club's courses and exam days do fill-up quickly; please contact Club secretary, Irene VK2VAN via email to; secretary@bmarc.org for class dates, to register, or for more information.

More information about the club can be found on the website, at www.bmarc.org.

*Steven VK2TSG
President, Blue Mountains Amateur Radio Club.*

[Manly-Warringah Radio Society]

And now with news from the Manly-Warringah Radio Society, here's Richard VK2SKY;

[Play File: 20-B-MRS0317.wav]

Duration: 1m25s

In: This Wednesday is ...

Out:.... the Manly-Warringah Radio Society.

[Transcript]

This Wednesday is lecture night at the Society, when Rod Miller VK2ZZM will delve into history, how it sometimes get manipulated for political reasons, and how evidence can be misinterpreted due to cognitive biases. Rod is the author of the book, "Lost Women of Rabaul", which was made into the ABC television series, "Sisters of War".

Last month's lecture, "Amateur Radio Operations on HMAS Vampire", is now up the club's YouTube channel, VK2MB-TV.

The club has recently taken delivery of a KiwiSDR 2 web SDR receiver, which is now undergoing configuration and testing. We'll let you know when it is ready for public use. Meanwhile, check out other web receivers at map.kiwisdr.com

The Manly-Warringah Radio Society meets every Wednesday evening at the First Terrey Hills Guides Hall, Beltana Avenue, Terrey Hills. Doors open at 7.30pm for an 8pm start, and visitors are always welcome. If you need directions, call in on the club's 2 metre repeater on 146.875, or check the club web site for details. The web site address is mwrs.org.au. The club is also on Facebook, X, and YouTube: just search for the club callsign, Victor Kilo 2 Mike Bravo.

*73 Richard VK2SKY,
Publicity Officer for the Manly-Warringah Radio Society.*

[MWRS lecture, Amateur Radio Operations on HMAS Vampire:

<https://www.youtube.com/watch?v=Dz43nMwtQIQ>]

[MWRS on the web: <https://www.mwrs.org.au/>]

[MWRS on Facebook: <https://www.facebook.com/ManlyWarringahRadioSociety>]

[MWRS on X: <https://x.com/VK2MB>]

[MWRS on YouTube: <https://www.youtube.com/@VK2MB>]

Waverley Amateur Radio Society

The March project day continued development of the Arduino frequency source. This time, adding an encoder to the unit to make changing frequency easy by the twist of a knob. The day was also a great success with most getting everything working quite quickly. Thanks to Fred VK2WS and Skip VK2ALR for their effort in setting up and running these workshops.

The next monthly meeting is this coming Wednesday March the 20th, in the Anzac room at the Rose Bay RSL club, on Vickery Avenue, Rose Bay. The meeting will commence from 7:30 pm with the topic for the evening being “bring along and talk about your favourite software related to Amateur Radio”.

As always, many members and friends meet up in the bistro, normally from around 6 pm, prior to the meeting for dinner and all are welcome.

Weekly nets continue on Monday evenings, at 8pm on the VK2RBV repeater, with net controller usually Richard VK2XRC or Bob VK2NRC.

The club's new email reflector is on the groups.io platform – for any members who haven't yet found it, go to groups.io and search for Waverley Amateur Radio Society.

Wednesday lunchtime get togethers, continue from Midday in the RSL bistro; these now adjourn after lunch to the ANZAC room for some practical activities.

Other activities – including monthly meetings – are continuing both in person and on Zoom. See the society's website for details.

You can keep up to date with the Waverley Amateur Radio Society on the web, at vk2bv.org. On the site you can also find out more about kits available, update your membership details, and use the contact form to send in any enquiries.

*73 from Eric VK2VE
Broadcast Publicity Officer*

[ID4 and Activities on the air]

[Play File: 21-E-ID4-AOTA2.wav]

Duration: 5m33s

In: [IDENT 4]

Out: ...the office phone, 02 9444 0123.

[Transcript]

I'm Mathew VK2YAP.... And I'm Stuart VK2BMX.

It's time for your quick trip around the bands for this week, with; activities on the air.

Daily;

Manly-Warringah "early bird" net, 6:30am on or near 3690kHz LSB; if that's too early, the "morning" net is from 8am on or near 7189kHz.

Amateur Radio Central West Group lunchtime net; 1pm on VK2RCW.

Mondays;

Westlakes ARC net 9:30am on 40 metres, 7115kHz, VK2ATZ Portable.

Great Lakes Radio Club net 7pm on VK2RGL; 147.1MHz with 91.5Hz tone, EchoLink VK2RGL-R.

Hunter Radio Group VK2AWX News 7:30pm, on 146.975MHz.

The **Blue Mountains ARC** D MR Net at 7:30pm on Brandmeister 50520, hosted by Ben VK2AFK.

Amateur Radio Central West Group net at 8pm on VK2RCW.

Lightning Net 8pm on 1860kHz, net control Steve VK2STG.

HADARC net 8pm on VK2RNS, 147.25MHz

Waverley ARS net 8pm on VK2RBV, 438.1125MHz with 91.5Hz tone. Activities online and on air; see website.

Tuesdays;

National VKDMR Net: starts at 8pm on Talkgroup 505.

Blue Mountains ARC net from 8pm, 3543kHz.

St George ARS digital net, 8pm on 146.8MHz

Illawarra ARS 80m net at 8:30pm, 3666kHz.

[...continues]

Wednesdays;

Westlakes ARC net 9:30am on 7115kHz. 2 Metre nets throughout the week, see website for details.

Hunter Radio Group net 7:30pm, on 146.975MHz and EchoLink node 1474.

HADARC 8pm on 3608.5kHz

Blue Mountains ARC 8pm on VK2RBM, 147.05MHz, 123Hz tone.

Amateur Radio Central West Group from 8pm on 3653kHz.

Armidale District ARC net 8:30pm on 3633kHz.

Thursdays;

Illawarra ARS net 12pm; VK2RMP 146.850 and VK2RUW on 146.675.

Fishers Ghost ARC net 7:30pm on VK2RFG, 438.65MHz with -7MHz offset and 91.5Hz tone; also, on EchoLink.

Oxley Region ARC 7:30pm on VK2RPM 146.7Mhz with 91.5Hz tone.

St George ARS 8pm, VK2RLE 146.8MHz.

The **CCARC weekly net** from 8pm on VK2RAG, 146.725MHz with 91.5Hz tone, and EchoLink.

Fridays;

Morning tea with HADARC 9am on 7106kHz.

Westlakes 9:30am on 7115kHz.

Amateur Radio Central West Group at 8pm, VK2RCW.

Saturdays;

Westlakes Stone the Crows net; 6am on 3588kHz.

Illawarra ARS net 9:30am on VK2RMP and VK2RUW.

Snowy Mountains ARC net 7:30pm on Southeast network; VK2RFS 146.75MHz, VK2RSE 147.375, VK3RDH 146.625, and EchoLink.

Sundays;

Westlakes DMR Net from 8:00am, usually on Talkgroup 3802.

Oxley Region ARC from 9am, VK2RPM.

WICEN NSW nets; 6pm on Chatswood 2m or Kurrajong 70cm repeater, 6:30pm on DMR or HF, and 6:45pm on P25. Check website for details.

*Don't forget to get your activities on the air here... send us through the details of your activity!
Email the details, to news@arnsw.org.au... or leave a message on the office phone, 02 9444 0123.*
