

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

VK2WI News would like to hear from clubs and groups planning Amateur Radio activities; just email the details and contact information, to news@arnsw.org.au. We also welcome reports on recent activities.

General enquires can be directed to the ARNSW office via email, to office@arnsw.org.au, or by leaving a phone message on 02 9651 1490.

In last week's news, we mentioned that the planned frequency changes to VK2WI transmissions, have been postponed. We will let you know about the new date, in a future news bulletin.

Tonight, we also 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.

ARNSW Elections

As previously announced, the Annual General Meeting of Amateur Radio New South Wales is on Saturday the 22nd of April 2023.

At the AGM, five of the nine directors will be retiring. Nominations are open for eligible members who wish to be a director for the years 2023 and 2024. The term of a director elected in 2023 is two years – until the AGM in 2025.

Nomination forms are now available for download from the website, arnsw.org.au, or from the office.

Nominations close at 11am on Saturday the 11th of March 2023.

[link to form https://arnsw.org.au/Nomination_2023a.pdf]

Peter VK2EMU
Returning Officer

Weekly Solar and Geophysical Report

For the period of the 10th to the 16th of February.

First, the summary of activity;

Dates across the columns are	10 th	11 th	12 th	13 th	14 th	15 th	16 th
10cm Flux	208	210	200	189	180	174	163
Fredericksburg A-Index (AFr)	12	10	5	3	6	23	21
Australian Index (Aaus)	9	6	5	4	5	21	20 estimated
T index	100	121	126	121	145	152	80

Solar activity was at R1 level on the 10th, with five M-class flares. The 11th saw activity at R3 level, with 8 M-class flares, and an X1.2 at 1549 UTC. Activity at R1 was then observed on the 12th with 4 M-class flares; the 13th and 14th, each with 2 M-class flares; the 15th with 4 M-class flares, and the 16th with an M1.1.

Geomagnetic activity remained below warning threshold from the 10th to the 14th, then reached G1 on the 15th and 16th.

F2 critical frequencies in Southern Australia remained mostly near predicted levels during local daylight hours – until the 15th when there was enhancement of 30%, which sadly turned around into 15% depression on the 16th. Local night hours brought more periods of enhancement – 20% on the 11th, 15% on the 12th, 20% on the 13th, 30% on the 14th and 25% on the 15th.

The forecast, issued on the 17th of February, through until the 23rd;

Solar activity is expected to be at R0 to R1 levels.

Geomagnetic conditions should mostly remain quiet. There is a possibility of G1 to G2 activity on the 18th, and some G1 on the 19th, if the CME first observed on the 15th turns out to be geoeffective.

Maximum usable frequencies in the Australian region are expected to be near predicted monthly values. Depressions of up to 15% are possible if CME-induced geomagnetic activity occurs.

Data courtesy of the Australian Space Weather Forecasting Centre.

Space Weather Summary for January 2023

Compiled with data from the Australian Space Weather Forecasting Centre

January saw an increase in high-level solar flare activity, with a total of 42 solar flares. Thirty-six flares resulted in activity reaching R1 level, three flares at R2, and three at R3. The largest flare for the month was an X1.9 on the 9th, an R3 event. Despite the high number of flares, none were associated with significant Earth-directed coronal mass ejections or solar proton events.

The bulk of the month's flare activity was produced by solar regions AR3182, AR3184 and AR3186, during the period from the 6th to the 15th. Solar regions AR3190 and AR3192 contributed to flare activity later in the month, producing isolated minor R1 flare events on the 25th and 26th.

Solar wind speed was elevated during the intervals 1-3, 5-9, 14-19, 21-24 and 25-31 of January due to high-speed wind streams resulting from coronal holes. A CME produced by a filament eruption observed on the 20th may have contributed to elevated solar wind conditions observed on the 23rd.

Despite the elevated solar activity, geomagnetic activity in the Australian region remained at G0 level for the entire month, with no significant geomagnetic storm days. Mild disturbances were induced by coronal hole wind streams, below the warning threshold. The strongest disturbance for the month was observed on the 15th of January, with the planetary Ap index reaching 23.

Ionospheric depressions observed during the month of January were all associated with mild geomagnetic activity induced by coronal hole high-speed wind stream effects. Sporadic E was frequently observed across the Australian region, particularly during local night hours.

Shortwave fadeouts impacting lower HF frequencies were observed following flares on the 6th, 7th, 9th, 10th, 11th, 13th, 14th and 15th. Ionospheric scintillation was observed at Niue, at 1029UTC on the 27th. Aside from some depressed periods on the 6th, 16th and 22nd, MUFs were near monthly predicted values to 25% enhanced in the Australian region during local daylight hours.

Australian T-index average for the month was 119.

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: 15-FOAR019.wav]

Duration: 2m31s

In: "Foundations of Amateur Radio ..."

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; you can follow him on Twitter, @VK6FLAB; and you can contact Onno by email, to cq@vk6flab.com.

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

WICEN News

This weekend, WICEN conducted the FEBEX23 training exercise, with off-grid HF stations passing simulated emergency traffic using 80 and 40 metres, as well as a commercial channel on the 5MHz band.

Next month, WICEN will be providing comms support for True Grit at Lower Portland on the 4th and 5th. There also five Memory Walk events: Western Sydney on the 5th, Illawarra on the 12th, Canberra on the 19th, and in both Cronulla and the Hunter, on the 26th.

WICEN is seeking operators for all these events. The Memory Walks last just a few hours, so they are good “starter events” for newer WICEN members to get some experience.

If you would like to participate, or to find out more, email wicen.ops@vrarescue.org.

The latest WICEN newsletter is now ready for download; on website, just click the “Newsletters” link on the left side of the page.

[https://nsw.wicen.org.au/files/newsletter/WICEN_NSW_Newsletter_2023-02.pdf]

Weekly voice nets are at 6pm and 6:30pm on Sunday evening, using FM voice, DMR or HF voice, depending on the week. All WICEN members and other Amateurs are welcome to join 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 the WICEN VHF DMR repeater network.

WICEN NSW is a communications support squad of VRA Rescue NSW, providing skilled radio communicators, in times of emergency. WICEN also supports local community events; providing practical training in tactical field communications, and to build other radio skills.

For more details of WICEN net schedules, and other information, check out the WICEN NSW web site, at <http://nsw.wicen.org.au>, that's

N - S - W DOT W - I - C - E - N DOT O - R - G DOT A - U

WICEN is also on Facebook and on Twitter @wicennsw [at WICEN N S W]; there, you can find photos and information about current and previous activations.

For information about other WICEN groups around Australia, visit the web at wicen.org.au – and click on the map.

[True Grit: <https://truegrit.com.au/event/nsw-10km-obstacle-course-2023/>]

[Memory Walks: <https://www.memorywalk.com.au/find-an-event>]

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

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

Club News

We start this week from the Oxley Region Amateur Radio Club; Friday night's club get-together was well attended, however, the planned the DMR code plug clinic had to be cancelled at the last minute. Instead, an informal "how to edit time slots of talk groups using the radio keypad" session, saw attendees successfully updating their radios to the recent VKDMR network changes.

The March General Meeting is coming up at 2pm on Saturday the 4th of March at the SES Building, Central Road, Port Macquarie. After a brief business meeting, David VK2AYD will present part two of his very interesting history, of the contribution by Amateur Radio operators to the success of the work at Bletchley Park during the second World War.

At the Club's VK2RCN site, intensive working bees continue. The 2 Metre voice repeater on 147.0MHz, and the 70cm RadNet DMR repeater are both working well. The APRS digipeater is about to be installed, with the 6-metre repeater on 53.8MHz planned for the following week.

Foundation training and assessments, along with examinations for Standard or Advanced licences, are planned for February. To register, contact the club via the contact form on the website, or write to PO Box 712 Port Macquarie NSW 2444.

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.

To find out more 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 2023 edition of the club's bimonthly newsletter "Oxtales" is now online, with past issues on the website as well. The January 2023 issue contains a progress report on the new VK2RCN Telegraph Point site, although a great deal of additional work has been completed since the report was written. You can also find the Club on Facebook; just search for Oxley Region Amateur Radio Club.

*Advised by Henry VK2ZHE
For the Oxley Region Amateur Radio Club*

Central Coast Amateur Radio Club

The Club's Kariong Clubrooms are open even Saturday from 10am. Next Saturday is the regular "Show and Tell", with this month's theme "Your Favourite Collection". Bring along something you like; be it radio, electronic or something completely unrelated that you like. You are welcome to do a presentation or slideshow using our data projector if you don't wish to bring along physical items. As always, members and visitors are most welcome.

As previously mentioned, Mayham will not run this year – the committee are refocusing and re-aligning the direction of the event, and hope to return in 2024. The third "Christmas Ham" event is on in March, from the 1st to the 24th. If you think you might be interested in either a Rigexpert AA-1500 Antenna Analyser, or a DX Commander Classic 80-10m Vertical Antenna kit; check the club's website and social media for more details.

At VK2RAG Somersby, D-Star, RadNet DMR and 2m EchoLink services are fully functional; and BrandMeister DMR and 70cm EchoLink and IRLP are still on the sick list. In an effort to reduce "ker-chunking"; the 146.725 repeater has been modified to require a key-up delay, meaning that you'll need to hold the PTT button down for half a second to key it. The repeater committee are monitoring the effect of the change.

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 Morning Tea Net is on each weekday from 10am, and the weekly Net is at 8pm on Thursday night. Both nets are on the VK2RAG 2 metre repeater - 146.725MHz with a 91.5Hz sub-audible tone, and on the CCARCNSW and HAM EchoLink conferences. The Thursday evening net 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.

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Sydney ATV Group

If you are interested in finding out more about ATV, Group member Gary VK2CRJ, assisted by John VK2ATU, will be guest presenters at the March meeting of the St George Amateur Radio Society.

Gary will be talking about amateur TV from his early days in the UK being involved in setting up ATV repeaters and working DX to Europe.

Being professionally trained in electronic engineering, Gary will be taking you through the early analogue days, the transition to digital then to full HD digital, the latest trends in ATV and narrow band digital transatlantic transmissions and much more.

The talk will be backed up with informative slides and ATV hardware on display.

Be sure not to miss this most interesting talk on Wednesday the 1st of March, starting at 7:15pm at Donnelly Park, Kyle Parade Connells Point. The talk will also be video recorded.

*Advised by John VK2ATU
on behalf of the Sydney ATV Group.*

Fisher's Ghost Amateur Radio Club

The next meeting of the Club is the Annual General Meeting. It is on this Wednesday the 22nd of February, in Block M at the Campbelltown School of Performing Arts, Beverley Rd. Campbelltown, commencing at 7:30pm. The AGM will be followed by the Monthly General Meeting.

All financial members are encouraged to attend the AGM to vote for their 2023 committee; and, as usual, visitors wishing to learn more about the hobby of amateur radio are most welcome to attend.

The Club's weekly net, on Thursday evenings, starts at 7:30pm on the Club repeater, VK2RFG. The repeater frequency is 438.650MHz. It has a negative 7MHz input and a 91.5Hz tone is required for FM access. It's also accessible via EchoLink.

To find out more about the Club's activities, visit the website at fgarc.org.au.

Submitted by Peter VK2PR

On behalf of the Fisher's Ghost Amateur Radio Club.

St George Amateur Radio Society

The Society's next gathering is on Wednesday the 1st of March, at Kyle Bay.

48 years ago, on the 1st of March 1975, Australia officially launched colour television with the slogan "March first into colour".

Entirely by coincidence, this month's gathering will feature a presentation by the Sydney ATV Group, tracing the development of amateur television from the early days of low definition black and white, to high-definition digital. Truly a presentation not to be missed.

There also will be an opportunity for those attending to peruse the disposals tables for a bargain and enjoy tea, coffee, biscuits, and cake while catching up with friends.

The gathering will be at the 1st Kyle Bay Scout Hall in Donnelly Park; Kyle Parade Connells Point – near South Hurstville, starting at 7:30pm on Wednesday 1st March.

Details about all of the Society's activities can be found on the website, www.sgars.org.

*Peter VK2EMU
Publicity Officer, St George Amateur Radio Society.*

Hornsby and Districts Amateur Radio Club

January's "start the year" BBQ went so well, that the Club added a Valentine's Day dinner at Magpies Waitara, with a strong member turnout – while no new romances have been reported, there were some great conversations and many YL's in attendance.

The Club's next Monthly meeting is on Tuesday 28th February, and will take a look at Digital Communication.

Rob VK2DIO and Tony VK2BTL will look at the theory and practical ways to use DMR and wider digital modes.

With the recent changes to the VKDMR network, its timely for a DMR refresher. What do all those terms like Talkgroups, Timeslots and Codeplugs really mean? What is the difference between DMR+ and Brandmeister? How do Hotspots work? Rob VK2DIO will attempt to make sense of it all and provide a pragmatic approach to getting started. And, to make sure Rob does not get carried away, Tony VK2BTL will tell how he went setting up his DMR radio – the good, the bad and the ugly. Together the digital dynamic duo will certainly be a Club evening not to miss.

So please join HADARC on the 28th February at 8pm at Mount Colah.

In other HADARC News... planning work has begun on the solar and battery upgrade to the VK2RNS Storey Park repeater site. And, some Club members have working hard on learning morse code. On the HADARC website, there are links to some resources, including a very helpful site with lots of ways to try out morse, including; generating morse from text or speech, and practice sending morse from a mouse or keyboard.

HADARC looks forward to catching up with Club members and guests on the weekly Club nets; Monday Nights on VK2RNS, Wednesday Nights on 80 metres, and Friday Mornings on 40 metres.

73 and let's keep radio-active,

*Matt VK2BAI
HADARC President.*

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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.

The **CCARC Morning Tea net** on *weekdays* from 10am; VK2RAG, 146.725MHz with 91.5Hz tone, also on EchoLink.

Mondays;

Westlakes ARC nets 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, 146.9Mhz and 438.025MHz.

Sydney ATV Group net 7:30pm; call in on 2m repeater 147.325MHz.

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, also available via EchoLink.

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

Tuesdays;

Blue Mountains ARC net from 8pm on 3543kHz.

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

Wednesdays;

Westlakes ARC net 9:30am on 7115kHz.

HADARC 8pm on 3608.5kHz

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

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

Hunter Radio Group net 7:30pm on 146.9MHz.

Thursdays;

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

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

St George ARS 8pm on VK2RLE 146.8MHz.

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

Fridays;

Morning tea with HADARC at 9am on 7106kHz.

Westlakes at 9:30am on 7115kHz.

Amateur Radio Central West Group at 8pm on VK2RCW.

Saturdays;

Illawarra ARS net 9:30am on VK2RMP 146.850 and VK2RUW on 146.675.

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

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

Sundays;

Oxley Region ARC from 9am, VK2RPM 146.7Mhz with 91.5Hz tone.

Westlakes DMR Net from 8:30am on Talkgroup 8. 2 Metre nets throughout the week, see website for details.

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