

## **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](mailto: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](mailto:office@arnsw.org.au), or by leaving a phone message on 02 9444 0123.

The 2023 AGM of Amateur Radio NSW is on Saturday the 22<sup>nd</sup> of April. Reports and Notices for the meeting have now been sent to members, though the office has seen some emails bouncing. If you were expecting to see your report via email and it hasn't arrived, please make sure our office has the right address for you – forward your details to [membership@arnsw.org.au](mailto:membership@arnsw.org.au) so that we can update our database.

Members intending to join the AGM online should note, that the teleconference information in the reports, is out of date and will not work. Updated information is contained in the email – and there will be a link on the ARNSW home page, that will take you straight into the conference.

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.

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## Repeater Update

The VK2RKG repeater at Bathurst is back on air at it's new location.

It's intended as a "fill-in" repeater, to cover the holes in the Bathurst township that VK2RCW doesn't see due to a big hill in the way.

VK2RKG is on 146.9MHz with a negative 600kHz offset and no tone required for access. It is experimentally linked to VK2RCW at Gowan.

It's been a group effort, co-ordinated by Josh VK2MES, who also designed the custom Arduino repeater controller.

Josh would particularly like to thank Gary VK2GLJ for supplying the mast and VHF antenna, Dave VK2JDS for helping modify and tune the cavities, Paul VK2GX for providing the UHF radios for linking, the multitude of other people for help with testing, and the previous custodians of the repeater Paul VK2AHB and Adrian VK2BFN.

# Weekly Solar and Geophysical Report

For the period of the 31<sup>st</sup> of March to the 6<sup>th</sup> of April.  
First, the summary of activity;

Dates across the columns are	31 <sup>st</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>
10cm Flux	129	125	127	134	136	137	137
Fredericksburg A-Index (AFr)	17	0	13	11	10	9	7
Australian Index (Aaus)	10	9	6	10	8	7	9 estimated
T index	121	137	129	138	128	130	124

Solar activity remained below warning threshold from the 31<sup>st</sup> of March until the 5<sup>th</sup> of April. The 6<sup>th</sup> of April saw activity at R1 level with an M3.0 flare at 0544UTC. Geomagnetic activity was at low to moderate levels, remaining below warning threshold.

F2 critical frequencies in Southern Australia were depressed 15% during local day on the 31<sup>st</sup> of March, recovering at night to near predicted, with some Spread-F observed in both Hobart and Perth.

The 1<sup>st</sup> and 2<sup>nd</sup> of April were enhanced up to 15%; the 3<sup>rd</sup> and 4<sup>th</sup> were enhanced 25% during local day, with enhancement of 15% continuing into local night on the 4<sup>th</sup>. The 5<sup>th</sup> saw enhancement of 15% during local day, and the 6<sup>th</sup> was enhanced by 20%, over predicted monthly values.

The forecast, issued on the 7<sup>th</sup> of April, through until the 13<sup>th</sup>;

Solar activity is expected to be at R0 level, with a chance of R1 or R2 events from a new solar region that recently rotated onto the visible solar disk. Geomagnetic should mostly remain at G0 level, though there is a chance of G1 activity on the 11<sup>th</sup>.

Maximum usable frequencies in the Southern Australian region are expected to be up to 15% enhanced for most of the week. Mild depressions of up to 15% are possible on the 11<sup>th</sup> and 12<sup>th</sup> if elevated geomagnetic activity develops. Isolated shortwave fadeouts are possible.

*Data courtesy of the Australian Space Weather Forecasting Centre.*

# Space Weather Summary for March 2023

*Compiled with data from the Australian Space Weather Forecasting Centre*

Solar activity was generally low to moderate in March; The largest flare was an X2.1 – R3 level – flare on the 3<sup>rd</sup> which was associated with a westward, non Earth-directed CME. The other R3 for the month was a short duration X1.2 flare on the 29<sup>th</sup>. Most flare activity was between the 4<sup>th</sup> and the 6<sup>th</sup>, with only isolated R1 flares on other days of the month. A total 21 flares were observed, none associated with significantly Earth-directed coronal mass ejections.

Solar wind speed enhancements in March were mostly due to solar filament eruptions on the 13<sup>th</sup> of March, and coronal hole high speed wind streams on the 21<sup>st</sup> and 22<sup>nd</sup>. Very minor S1 solar proton activity was observed between the 13<sup>th</sup> and 15<sup>th</sup>, likely due to a very strong and fast, far side CME observed on the 13<sup>th</sup>. Due to being directed away from Earth, this CME posed no threat to the Earth's geomagnetic field.

The largest Geomagnetic disturbance for the month was on the 23<sup>rd</sup> and 24<sup>th</sup>, with Australian regional field reaching G2 and G1 levels respectively, and northern hemisphere disturbance reaching G3 and G4 levels. This was associated with a slow CME containing a persistent southward IMF magnetic field orientation, resulting in a more intense disturbance. Auroral observations were reported from southern Australian sites during this geomagnetic storm. The 15<sup>th</sup> saw a sudden impulse from a faster CME that induced much weaker geomagnetic activity, again associated with a solar filament eruption. An isolated G1 period was observed on the 30<sup>th</sup>, associated with a coronal hole high speed wind stream.

The deepest ionospheric depression for March was on the 24<sup>th</sup>, with southern Australian regional (MUFs) depressed up to 50%. Enhanced conditions of 30 to 40% followed on the 25<sup>th</sup>, for the southern Australian region. Occasional mild depressions were observed, following periods of mildly elevated geomagnetic activity.

Minor shortwave fadeouts were observed on the 5<sup>th</sup> and 6<sup>th</sup>.

Frequent brief periods of ionospheric scintillation were observed during local night hours during the month at Darwin, Weipa and Niue. Australian T-index average for the month was 131.

## Foundations of Amateur Radio

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

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*Duration: 1m14s*

*In: "There is a persistent perception..."*

*Out: "I'm Onno VK6FLAB"*

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For more information about this series, including audio, transcripts and other useful amateur radio resources, Onno's website is; [vk6flab.com](http://vk6flab.com); you can follow him on Twitter, @VK6FLAB; and you can contact Onno by email, to [cq@vk6flab.com](mailto:cq@vk6flab.com).

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## WICEN News

Up next on the WICEN calendar is the NSW Pickleball Open at Wahroonga in northern Sydney, running from Friday to Sunday this week. WICEN will distribute VHF DMR handhelds to event officials, and provide instruction and technical support, including being on-call during the event.

Dementia Australia's next Memory Walk is in Sydney, on the 21<sup>st</sup> of May. Memory Walks last just a few hours, so they are ideal “starter events” for new (or rusty) WICEN members to get some field experience.

To participate in any event, or to find out more about WICEN, email [wicen.ops@vrarescue.org](mailto:wicen.ops@vrarescue.org).

There's a WICEN meetup here at VK2WI Dural next Sunday, dedicated to learning about VRA 62, the WICEN tactical communications vehicle.

WICEN's voice nets are at 6pm and 6:30pm each Sunday, 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 Kurrajong 70cm FM repeater, 439.825MHz with a 91.5Hz tone, with net controller VK2WIB; and the 6.30pm net will be on HF, on or near 7110kHz LSB. Net controller VK2WIZ will announce the call-in sequence and other information.

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; which provide practical training in tactical field communications, and build general radio skills.

To find out more, visit the WICEN NSW web site at [nsw.wicen.org.au](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](http://wicen.org.au) – and click on the map.

[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.

The next Club Coffee Morning is at 10am this coming Thursday the 13<sup>th</sup> of April at Brooklyn's Burger Bar, Thrumster.

The Telegraph Point VK2RCN repeater site is nearly complete. The APRS digipeater, and the 6-metre repeater will be installed once some technical issues with the equipment, are rectified.

Its now only two months until the Club's annual Field Day on Saturday and Sunday the 10<sup>th</sup> and 11<sup>th</sup> of June 2023; during the Kings Birthday long weekend. The field day is at Wauchope Showground Hall, with Field Day dinner at Port Macquarie Golf Club on Saturday night. The Field Day will have all the usual activities including fox hunts, trade displays on both days, trash and treasure, and home brew display. Be sure to book accommodation, well ahead.

The Club ran a successful Foundation training and assessment course last weekend. Courses are run once sufficient candidates have registered; so, if you are interested, 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](http://orarc.org). The March 2023 edition of the club's bimonthly newsletter "Oxtales" is now online, and past issues are on the website as well. 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.*

## Illawarra Amateur Radio Society

The next meeting of the Society is on this coming Tuesday the 11<sup>th</sup> of April. The general meeting starts at 7:30pm, directly following the Society's Committee Meeting at 6:30pm. Attendees are most welcome to arrive from 6.30 onwards to enjoy a pre-meeting chat and cuppa in the foyer.

Meetings are at the BlueScope Steel Visitors Centre, on the southern side of the Wollongong CBD. After turning off Springhill Road into the BlueScope main entrance road, attendees then turn immediately right before the security gates, following the large signs towards the Visitors Centre.

Tuesday night's meeting will have IARS Member Ned VK2AGV presenting the life of a little known, but very interesting person, who was a pioneer in the development of radio and electronics. He was in fact unknown to many even though his contribution has affected many. To keep the intrigue, Ned has asked that the name be kept secret! So, if you want to find out who this person is and of their inventions, you're invited to come along and join us for the evening. As usual there will be some goodies on our trash, treasure and disposals table, as well as the usual excellent supper of coffee, tea, cake and biscuits.

The Society now has *\*three\** weekly Nets.

The Saturday morning net starts at 9:30am, run by Steve VK2BGL; join in via the 2 metre repeaters, VK2RMP on 6850 or VK2RUW on 6675, or from out of town via EchoLink, VK2BGL-R.

The new Net is at 12pm on Thursday afternoons, run by Chris VK2CY. This Net is made up of many retired Marine Radio Operators and Radio Inspectors, but everyone is welcome. As you can imagine their topics of discussion can be far reaching, informative and enlightening. The Net is also the Society's 2 metre repeaters 6850 and 6675, while out-of-towners can check-in on Echolink via VK2MT-R.

The third weekly Net is on 80 metres on Tuesday evenings, except for meeting nights, at 8:30pm; this Net is a get together of Society members having a casual chin-wag. The usual frequency is 3666kHz, plus or minus for other usage.



You can find out more about the Illawarra Amateur Radio Society, including details on Amateur Radio training and examination activities, on the web at [iars.org.au](http://iars.org.au), and the society is also on Facebook. The website again; [iars.org.au](http://iars.org.au).

To conclude, all listeners are invited to attend the next meeting of the Illawarra Amateur Radio Society, at 7.30pm this coming Tuesday the 11<sup>th</sup> of April, at the BlueScope Steel Visitor Centre in Wollongong.

*Rob VK2MT*

*President of the Illawarra Amateur Radio Society.*

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## Blue Mountains Amateur Radio Club

The club wishes all listeners a happy and safe Easter.

The next meeting returns to the usual schedule – and will be on Friday the 5<sup>th</sup> of May, at the Club Rooms, 4 Moore Street Glenbrook, in the Blue Mountains. Doors open at 7pm, and visitors and prospective new members are always welcome.

The Club has several weekly nets – we have details in “Activities on the air” later in this bulletin. There is also a DMR Net on Monday nights – see the BMARC website for details.

Foundation licence and Upgrade courses continue at the Club; the next course is scheduled for the weekend of the 15<sup>th</sup> and 16<sup>th</sup> of April. Licence upgrade training is held on Wednesday evenings at Glenbrook, with online options available; Standard and Advanced Exams are also available, on the second day of foundation weekends.

Courses and exam days do fill-up quickly, so please contact Club secretary, Irene VK2VAN, by email to; [secretary@bmarc.org](mailto:secretary@bmarc.org) to register, or for more information.

More information about the club can be found on the website, at [www.bmarc.org](http://www.bmarc.org).

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

## Central Coast Amateur Radio Club

Happy Easter from the Central Coast Amateur Radio Club.

The Club's Kariong Clubrooms are open every Saturday from 10am. As always, members and visitors are most welcome.

At VK2RAG Somersby, D-Star, RadNet DMR and 2m EchoLink services are fully functional.

The Somersby WebSDR is online at [websdr.ccarc.org.au](https://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](https://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.*

## Fisher's Ghost Amateur Radio Club

Ted Powell Memorial DX Challenge entries are currently open until the 14<sup>th</sup> of April. This will be a huge quarter with some seriously high-ranking DX on-air, including Bouvet Island! See the contest page for more info, [contest.fgarc.org.au](http://contest.fgarc.org.au).

The next General meeting is on Wednesday the 26<sup>th</sup> of April, in Block M at the Campbelltown School of Performing Arts, Beverley Rd. Campbelltown, commencing at 7:30pm. Visitors wishing to learn more about Amateur Radio are most welcome to attend.

The Club's weekly net on Thursday evenings starts at 7:30pm on the Club's repeater, VK2RFG, on 438.65MHz. Anyone is welcome to check-in. The repeater has a negative 7MHz input and a 91.5Hz CTCSS tone is required for access - its also available via EchoLink.

To find out more about the Club's activities, visit the website at [fgarc.org.au](http://fgarc.org.au); and the Club's Facebook page can be found by searching for VK2FG.

*Advised by Peter VK2PR  
For the Fishers Ghost Amateur Radio Club.*

## Manly-Warringah Radio Society

The Society's YouTube channel, VK2MB-TV, has uploaded two new videos this week. The March lecture by Zara VK2ZYP on the History of Luna Park is there, and a long-lost recording by David VK2CZ on Antenna Modelling Software has been found and uploaded.

The recent Show and Tell night was a great success, and video from the night will be uploaded soon. Dick VK2DIK was there as guest judge, and Dave Jones from EEV Blog recorded his own video of the proceedings too.

The Manly-Warringah Radio Society meets every Wednesday evening at the First Terrey Hills Guides Hall, 7 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](http://mwrs.org.au), that's M-W-R-S dot O-R-G dot A-U.

*73 Richard VK2SKY*

*Publicity Officer, Manly-Warringah Radio Society.*

## Hornsby and Districts Amateur Radio Club

The March Monthly meeting featured a presentation by Rob VK2DIO, on DMR, how it works, and the four key steps to get on air.

The four steps are;

1. Get a DMR ID
2. Get a DMR Radio
3. Get a Codeplug
4. Get on air.

More details on DMR and all of these steps, can be found on the Club's website, at [hadarc.org.au](http://hadarc.org.au).

Also at the March Meeting, HADARC Members agreed to a set of Values HADARC want to be known for. The Six Values are: Being Considerate, Loyal, Progressive, Friendly, Balanced and finally of Service to the community. Whether via email or on a net or in person, please expect these Values at HADARC.

Finally, an important note about the Mid-monthly meeting this Tuesday night. In a break with tradition, it will \*not\* be at Mt Colah! Instead, it will be at the Rifle Club near Mount Wilga Hospital, Rosamond St Hornsby. So, the Club looks forward to seeing members and visitors at the Hornsby Rifle Club Hall.

73 for now 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.

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

**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, 146.9Mhz and 438.025MHz.

**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;*

**National VKDMR Net:** from 7:30pm on Talkgroup 505.

**Blue Mountains ARC** net from 8pm on 3543kHz.

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

### *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 146.9MHz.

**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.

***Thursdays;***

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

**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;***

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

**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.

***Sundays;***

**Westlakes** DMR Net from 8:30am, usually on Talkgroup 3802; listen to Talkgroup 505 at 8:28am.

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

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