

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.

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.

Antenna Day 2 in review

Last Sunday, just over fifty members attended part of HF antenna day presentations here at VK2WI Dural, along with several others viewing online.

There were four presentations on the day;

Starting the day, Raffy VK2RF recounted his experiences operating on HF while travelling. Raffy chose an Alex-loop, a magnetic loop HF antenna that can be easily transported and assembled.

Then Ken VK2BBQ, an avid contest operator, discussed his field antenna of choice, the G5RV. Lewis Verney invented the antenna out of necessity in 1949, and its simplicity and compact size still finds it many users today.

After lunch, Mal VK2YA and Jan VK2FEB presented the Terminated Folded HF broadband antenna; first reviewing the principles of operation, followed by a practical setup at the rear of the Centenary Building. The antenna outside was connected to a network analyser showing the setup and typical performance.

Rounding out the day, Peter VK2EMU presented a simple shortened HF dipole for backyards and other places where spaces is limited. Using home-made loading coils, Peter was able to make a usable 80 metre antenna that could be installed in a space for a 40-metre dipole.

For those interested who couldn't attend or stream on the day, both Raffy's and Ken's presentations are now up on the ARNSW YouTube channel – there's a link on the ARNSW home page – and more presentations will be added in the coming days.

[ARNSW youtube: <https://youtube.com/@ARNSW>]

Weekly Solar and Geophysical Report

For the period of the 26th of April to the 2nd of May.

First, the summary of activity;

Dates across the columns are	26 th	27 th	28 th	29 th	30 th	1 st	2 nd
10cm Flux	153	153	140	138	130	135	142
Fredericksburg A-Index	11	12	7	7	10	10	24
Australian A-Index	10	6	2	3	9	4	21 estimated
T index	153	134	127	119	103	123	108

Solar activity reached R1 levels on the 27th and again on the 29th, each with two M-class flares. The 30th was R2 with four flares; the largest M9.5, at 2346UTC. The 1st and 2nd of May were also at R1, with 2 M-class flares.

Geomagnetic activity was low to moderate until the 2nd when activity reached G1. Weak geomagnetic impulses were observed on the 30th of April at 10 nanoTesla, and 12 nanoTesla on the 2nd of May.

F2 critical frequencies in Southern Australia remained mostly near predicted monthly values. Enhancement of 20% was observed during local night on the 26th, and enhancement of 15% was observed on the 27th. Depressions of up to 35% were observed after local dawn on the 2nd of May.

The forecast, issued on the 3rd of May, through until the 9th;

Solar activity is expected to be at R1, with two solar regions recent producing significant flares.

Geomagnetic activity is expected to reach G1 with a chance of G2 on the 3rd of May; returning to quiet levels afterwards.

Maximum usable frequencies are likely to be slightly depressed after local dawn early in the forecast period, returning later to near predicted monthly values.

Data courtesy of the Australian Space Weather Forecasting Centre.

Space Weather Summary for April 2024

Compiled with data from the Australian Space Weather Forecasting Centre

Solar activity in March was mostly at the R0 to R1 level, with isolated periods of R2 and R3 activity. There was a total of 21 flares for the month; the largest two for the month were on the 3rd and again on the 29th; each X2.1.

A minor increase in solar proton flux was observed from the 13th to the 15th of March, reaching a maximum flux of 22pfu resulting in S1 warning levels. This was likely due to a very strong far side CME observed on the 13th; but, due to the direction, this CME posed no threat to the Earth's geomagnetic field.

Geomagnetic conditions were mostly quiet, with the largest regional disturbances reaching G2 level on the 23rd of March. Disturbance was stronger in the northern hemisphere, reaching G4 levels due to a coronal mass ejection associated with a solar filament eruption. This slow CME contained a persistent southward IMF magnetic field orientation that resulted in a more intense disturbance. Auroral observations were reported from southern Australian sites during this geomagnetic storm period. Despite the high storm levels, observed planetary Ap indices reached 66 on the 24th of March, more towards the lower end of potential geomagnetic storm values.

Ionospheric conditions for HF radio communications were generally good. The 24th of March depression up to 50% in Southern Australia, following significant geomagnetic activity. Enhanced conditions of 30-40% followed on on the 25th, across the southern Australian region. Northern Australian region MUFs remained generally enhanced during the month. Occasional mild depressions were observed for southern Australian region MUFs in association with periods of mildly elevated geomagnetic activity from solar coronal hole wind streams. Minor shortwave fadeouts were observed on the 5th and 6th. 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.

[Play File: 15-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: 16-FOAR168.wav]

Duration: 6m53s

In: The topic of how...

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.

Club News

We start this week with news from the Oxley Region Amateur Radio Club; and the next informal get-together is May Coffee Morning – 10am on Thursday the 9th at Brooklyn's Burger Bar, Thrumster.

The Club's Annual Antenna Shootout will be at 10am on Sunday the 19th of May at Huntingdon, a short distance west of Wauchope. Full details in the soon to be published May issue of the Club's bimonthly newsletter, Oxtales.

It is now only five weeks until 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 – the area is a very popular holiday destination during the Long Weekend, so be sure to make accommodation bookings soon. You can camp at the Wauchope Showground in your tent, caravan, or motor home; details are on the Wauchope Showground website.

The next Foundation Licence training and assessment weekend will be held as soon as sufficient candidates have registered. 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 March 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.*

[Play File: 17-E-ID3.wav]

Central Coast Amateur Radio Club

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

Last week the club held its regular Show and Tell. Col VK2ZCO showed off some satellite antennas. Graham VK2GRA brought in some mobile antennas, and an old meter from the 1970s. Glenn VK2GEM showed various types of microphones and a testing kit that he has and Michael VK2HFN showed a portable kit he is working on.

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 repeater is currently only operating in P25 or Analogue FM modes.

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 7th of June at the clubrooms, 4 Moore Street Glenbrook, in the Blue Mountains – doors open from 7pm. Visitors and prospective new members are always welcome.

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.

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.

Licence Upgrade classes run on Wednesday nights, both on Zoom and in-person at the Glenbrook clubrooms. Foundation classes are offered bi-monthly.

With a 98% pass rate, the Club's courses and exam days 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 Blue Mountains Amateur Radio Club, can be found on the website, at www.bmarc.org.

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

St George Amateur Radio Society

Last weekend was the Society's foundation training and assessment weekend for April.

All the candidates were successful with four new Foundation operators, two new Standard operators and two Advanced operators. Congratulations to them.

Further training and assessment weekends are being planned for the rest of the year. Dates will be announced soon.

In two weeks' time, The Don Edwards memorial slow Morse contest returns for 2024; on Saturday the 18th and Sunday the 19th of May. This contest commemorates Don VK2NV, whose operating was almost exclusively on CW. Don was always willing to assist other amateur to learn, or to improve, their Morse Code.

The contest aims to encourage all amateurs – but especially those who don't usually operate Morse – to take part. Contest rules are simple – sent by hand and received by ear, no more than 10 words per minute. Past contests have seen many successful contacts at 5 words per minute or less.

The contest times – on 80 metres on Saturday the 18th, and on 40 metres, Sunday the 19th.

For more details on the contest, and other activities of the St George Amateur Radio Society's, visit the website, www.sgars.org.

73 de Peter VK2EMU.

[ID4 and Activities on the air]

[Play File: 17-E-ID4-AOTA4.wav]

Duration: 5m32s

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 7:30pm 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.*
