

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

VK2WI News continues with regular morning and evening bulletins throughout January; we would like to hear from you, if you are planning any activities for the holiday season. 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.

At the end of this month, we will be making some changes to VK2WI transmissions. Our 80 metre transmissions will change frequency, moving up the band to 3695kHz; and 6 metre transmissions will move to the VK2RWI repeater, on 53.85MHz.

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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Weekly Solar and Geophysical Report

For the period of the 6th to the 12th of January.

First, the summary of activity;

Dates across the columns are	6 th	7 th	8 th	9 th	10 th	11 th	12 th
10cm Flux	172	179	184	191	193	195	212
Fredericksburg A-Index (AFr)	4	5	7	7	6	8	8
Australian Index (Aaus)	3	5	5	4	5	9	7 estimated
T index	65	104	120	118	126	118	123

Solar activity was at R3 levels on the 6th with an X1.2 flare at 0057UTC; R1 on the 7th, with an M1.6 flare; R1 on the 8th with 4 M-class flares; R3 on the 9th with 3 M-class flares and an X2.0 at 1850UTC; R3 on the 10th, with 6 M-class and one X1.1; R2 on the 11th with five M-class flares; and R1 on the 12th, with five M-class flares.

Geomagnetic activity was at quiet to unsettled levels, below the G1 warning threshold. At 0056UTC on the 6th of January, Magnetometer data recorded a weak impulse of 8 nanoTesla.

F2 critical frequencies in Southern Australia were mostly near predicted monthly values. Some enhancements were observed; 15% during local day and 20% at night on the 8th; 20% at night on the 9th; 25% during the night of the 10th; 15% during the night of the 11th; and 20% all day on the 12th.

The forecast, issued on the 13th of January, through until the 19th;

Solar activity is expected to be at R1 to R2 levels, with a chance of some R3 events. Geomagnetic conditions should remain quiet to unsettled, with a chance of G1 disturbance on the 19th due to coronal hole effects.

MUFs in Southern Australia are likely to be near predicted to 15% enhanced. Mild degradation is possible on the 19th, and there is an increased chance of shortwave fadeouts during the week.

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 December, we had a;

Minimum of 111, Average of 146 and a Maximum of 167
With peak dates from the 12th to the 20th, and the 27th to the 31st.

Halfway through January, so far we are expecting a;

Minimum of 130, Average of 172 and a Maximum of 212
With peak dates from the 7th to the 21st;

And looking ahead to February, we are expecting a;

Minimum of 130, Average of 157 and a Maximum of 185
With peak dates from the 1st to the 10th, and the 27th to the 28th.

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>]

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: 5m19s

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.

WICEN News

Weekly voice nets continue at 6pm Sunday, on either the Chatswood 2 metre repeater, or the Kurrajong 70cm repeater, please check the website for details.

WICEN NSW, is a communications support squad of VRA Rescue NSW, the web address is nsw.wicen.org.au, on twitter @wicennsw, and on Facebook.

For information about other WICEN groups; WICEN ACT is part of the Canberra Region Amateur Radio Club. Their website includes WICEN and general Club information and can be found at www.crarc.org.au. WICEN Victoria has a weekly net on Tuesday at 8:30pm, on 3.6MHz. More details on the web at vic.wicen.org.au.

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ARRL DX news

UGANDA; Anders, SM0HPL is active as 5X7W from Kampala until January 23. Activity is on the HF bands using QRP power.

ALGERIA; Members of radio club 7X2VFK are active with special event call sign 7U7C during the Africa Cup of Nations football tournament.

QATAR; Tony, RN1B is active as A75GC from Doha until the end of January.

CROZET ISLAND; Station FT8WW is active until January 26.

CAPE VERDE; Harald, DF2WO is active as D44TWO from Sao Tiago, IOTA AF-005, until January 21. Activity is on 160 to 6 metres using CW, SSB, FT8, and FT4, as well as on Satellite QO-100.

ETHIOPIA; Ken, K4ZW, Bob, W9XY, and Nodir, EY8MM plan to be active from the Ethiopian Amateur Radio Society's club station ET3AA until January 21. As part of their activity, they will also try to mentor newcomers to amateur radio.

GUADELOUPE; Herve, F5HRY will be active as FG/F5HRY from Marie Galante Island from January 19 to February 2. Activity is holiday style on 80 to 10 metres, including 30, 17, and 12 metres, using CW, with SSB on request.

FEDERAL REPUBLIC OF GERMANY; Special event station DR100XRAY is active until June 30 to commemorate the 100th anniversary since the death of Wilhelm C. Roentgen, the physicist whose discovery of X-rays revolutionized diagnostic medicine.

SAINT BARTHELEMY; Phil, K2LIO is active as FJ4WEB until August 15. Activity is on 40 to 10 metres using SSB.

THAILAND; Jack, F5LIT will be active as HS0ZPU from January 17 to February 6. From January 17 to 20, he will be active from Krabi Island, IOTA AS-053.

PAPUA NEW GUINEA; David, VK4FABN is active as P29DT from Tabubil in the Star Mounts in the North Fly District of the Western Province. Activity is holiday style on 40, 20, 15, and 10 metres using CW and SSB.

ARUBA; Jeff, VA3QSL is active as P4/VA3QSL until February 8. Activity is holiday style on 40 to 6 metres using CW, SSB, and various digital modes.

PALAU ; Operators Mike, JA6EGL, Kuzo, JH6WDG, and Mune, JR6DRH are active as T88SM, T88AQ, and T88RH, respectively, from Koror Island, IOTA OC-009, until January 19. Activity is on 160 to 6 metres using CW, SSB, and various digital modes.

CONGO; A group of operators are active as TN8K until January 21. Activity is on 160 to 6 metres using CW, SSB, RTTY, PSK, FT8, and FT4. This includes being active on Satellite QO-100.

MONTserrat; Thaire, W2APF is active as VP2MDX until March 28. Activity is on 80, 40, and 30 metres using CW and SSB.

UK SOVEREIGN BASE AREAS on CYPRUS; Garry, 2M1DHG is active as ZC4GR. Activity is on 40, 30, and 10 metres using FT8.

THIS WEEKEND ON THE RADIO. The North American CW QSO Party, NCCC RTTY Sprint and CW Sprint, QRP 80-Metre CW Fox Hunt, K1USN Slow Speed CW Test, YB SSB DX Contest, UBA PSK63 Prefix Contest, WAB 1.8MHz Phone, NRAU-Baltic SSB Contest, NRAU-Baltic CW Contest, RSGB AFS Data Contest and the Run for the Bacon QRP CW Contest are scheduled for this weekend.

The K1USN Slow Speed CW Test, ICWC Medium Speed CW Test, OK1WC Memorial, Worldwide Sideband Activity Contest, QRP 40-Metre CW Fox Hunt, Phone Weekly Test, A1Club AWT, CWops Test, VHF-UHF FT8 Activity Contest, Mini-Test 40 and the Mini-Test 80 are on from January 16 to 18.

Club News

We start this week, with news from the Oxley Region Amateur Radio Club. The next meeting of the Club is a Friday Night get-together, from 7pm this Friday the 20th of January in the SES Building, Central Road Port Macquarie. Copies of the Club's 2023 calendar will be available at the meeting. Last Thursday was the first Coffee Morning for 2023, with a group of members enjoying a catch-up. Coffee Mornings are an informal catch up, on the second Thursday of each month at Brooklyn's Burger Bar, Thrumster

The VK2RCN 2-metre repeater is temporarily back on air at the new Telegraph Point site, along with a 70cm FM voice repeater, temporarily on 438.525MHz. This will be replaced by the RadNet DMR repeater early in the New Year. The intensive working bees have been continuing, with fitout of the equipment shelter and installation of repeaters commencing on Monday. The site will be formally commissioned later in the month, once all the repeaters and equipment have been permanently installed and tested.

Candidates wishing to undertake Foundation training and assessment early in the new year, or an assessment for Standard or Advanced licences, can contact the club at PO Box 712 Port Macquarie NSW 2444, or via the contact form on the website.

There are two club nets each week; the mid-week net starts at 7:30pm on Thursday nights, and the weekend net starts at 9am Sunday mornings. Both nets 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 November 2022 edition of the club's bimonthly newsletter "Oxtales" is now online, with past issues are on the website as well. The January 2023 issue is in preparation and will be published later in the month. 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.

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 will now run place in the first quarter of this year.

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.

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 is on each weekday from 10am, and the weekly Net returns at 8pm this 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

The Group's ATV repeater at Lawson in the Blue Mountains, transmits high-definition TV on 445.50MHz, with analogue and digital inputs on 23cm.

Reception is possible over the Sydney Metro area, or via the British Amateur TV Club streaming web site; select VK2RTS Sydney. You can also text to say that you're watching – just enter /nick, a space then your name, your following text will appear in the column above.

Regular nets are on Monday evenings starting at 7:30pm. We regularly have technical talks, show our latest projects, general interest videos and much more.

You can call in during the net on the Lawson repeater, 147.325 MHz with positive offset, with reports, questions or help with receiving Amateur Television. Why not join in and find out more about this fascinating and fast-growing aspect of digital amateur radio.

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

Manly-Warringah Radio Society

This coming Wednesday is lecture night at the Society; and this month's exotic treat comes courtesy of Gavin Smith, who will speak on the topic of "Troubleshooting Ancient Roman Dodecahedrons".

Most of us know that a dodecahedron is a three-dimensional shape having twelve faces, each of which is usually a pentagon.

But, did you know that many mysterious bronze dodecahedrons, dating back to the Roman age, have been dug up all across Europe? These handcrafted objects are beautiful, but their purpose is still a matter of some debate.

Gavin's lecture will first explore what makes an explanation "good" or "bad", then experimentally test various proposed uses for these "Roman Dodecahedrons".

Featuring a ton of experimental archaeology, involving Arduinos, precision lasers, woodworking and... string, Gavin will present his own new explanation, and show how it both explains the observed data and predicts the properties of one particularly unusual specimen that was dug up.

As usual, doors open for an 8pm start. Members and visitors are welcome.

In other news, the 26th of February marks 100 years since the establishment of The Manly and District Radio Club, on Sydney's Northern Beaches. To celebrate this momentous occasion, the Society will be activating Special Event Callsign, V1100MB, starting on the anniversary and continuing throughout 2023. More details will follow in the coming weeks, but in the meantime, you can check out V1100MB on QRZ dot com, and see the website for updates.

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. If you need directions, call in on the society's 2 metre repeater on 146.875, or check the web site for details; the address is mwrs.org.au.

*73 Richard VK2SKY
MWRS Publicity Officer*

Waverley Amateur Radio Society

The next meeting is coming up at 7:30pm this Wednesday the 15th of January, in the ANZAC room of Rose Bay RSL Club, Vickery Avenue, Rose Bay.

At the meeting, Fred VK2WS will demonstrate RTTY as will be used in the upcoming CQ WW RTTY contest from the clubs contest site at Robertson.

Many members partake of dinner in the club's bistro prior to the meeting from about 6 pm and all are welcome; especially any visitors from other clubs or out of town.

Regular Monday evening nets are at 8pm on VK2RBV, 438.1125 MHz with a -5.4 MHz offset and 91.5Hz tone for access.

Wednesday lunchtime get togethers, are back on in the RSL bistro; these now adjourn after lunch to the ANZAC room where some practical activities are undertaken.

Other activities are continuing either in person and on Zoom. See the society's website for details.

The first Saturday of the month, is "project day", also in the ANZAC room of Rose Bay RSL Club. At the next one, on February 4th, Skip VK2ALR will present an introduction to N1MM contest logging software, which is the program used by the Society for contest logging.

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 get in touch for more information.

*73 from Eric VK2VE
Broadcast Publicity Officer*

St George Amateur Radio Society

The Society conducts Foundation courses, and Licence assessments for all grades. The next training and assessment weekend is scheduled for the 11th and 12 of February 2023, at Sutherland.

Courses and assessments are run in compliance with current public health restrictions and COVIDsafe guidelines.

Foundation licence courses are held over the whole weekend; with review of the Foundation Licence Manual, practical training, followed by assessment in theory, regulations and practical. Candidates will need to have read and be familiar with the contents of Foundation Licence Manual, prior to attending the weekend course.

Standard and Advanced licence assessments are held on Sunday. Candidates will need to have undertaken self-study in theory and regulations prior to attending the assessment session.

Advance booking is necessary to meet the current lead time requirements of the government selected outsourced examination provider, AMC; Bookings are required by COB on Friday the 27th of January. Late bookings cannot be accepted, as examination materials are provided specifically for each candidate.

For any further information please contact our education team via email to education@sgars.org.au.

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

Hornsby and Districts Amateur Radio Club

January the 24th is the date for the Club's customary BBQ get-together, to start the new year. This year, its at the Hornsby Manly Target Rifle Club, Rosamond St, Hornsby. Grant VK2ZOO has kindly worked with the club to allow us to use the facilities. Please see the HADARC Web site and QUA Magazine for further details.

Starting a new year brings new opportunities; at HADARC, Tony VK2BTL has been working on a new DMR setup. We are looking forward to hearing more at the next meeting in February. We also have early news from Jack VK2PCH that his new antenna setup coupled with a common mode balun choke as reduced his home QTH noise floor by 1-2 'S-points'. Nice work Jack.

In the past 10 days, Rob VK2DIO and Steve VK2AAV replaced the VK2RNS 2-metre repeater with a Tait transceiver. Feedback has been excellent, and we would welcome Amateurs across Sydney trying the repeater to provide us feedback via the HADARC web site. VK2RNS is on 147.25MHz; please let us know signal strengths at your QTH.

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 now back 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.

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** is back this week; 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; see website for details.