

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

While the VK2WI Dural site is currently closed to visitors, you can still make contact via email, to [office@arnsw.org.au](mailto:office@arnsw.org.au), or by leaving a phone message with the office, on 02 9651 1490.

We wish to remind our listeners of some telephone services that are currently available if you have health concerns – the National COVID hotline is 1800 020 080, providing general advice; if you are feeling unwell, Healthdirect is on 1800 022 222. Both services are available 24 hours a day; and are a free call from most telephone services.

Later in this bulletin, we have a summary of on-air activities from Sydney and across the state. We would welcome any updates from club and groups especially regarding events and activities over the holiday period. You can email [news@arnsw.org.au](mailto:news@arnsw.org.au) – we don't need full items, just the details of the activity and contacts; and, as always, we welcome reports to follow up on the outcome of recent activities.

Tonight, we again 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.

# Weekly Solar and Geophysical Report

For the period of the 31<sup>st</sup> of December to the 6<sup>th</sup> of January;  
This report issued on the 7<sup>th</sup> of January.

First, the summary;

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	102	94	89	84	86	84	94
Fredericksburg Index (Afr)	2	9	7	9	5	3	2 observed
Australian Index (Aaus)	3	8	5	9	2	3	1 estimated
T index	46	58	41	39	31	18	26

Solar activity was moderate on both the 31<sup>st</sup>, with a C9.0 flare at 0658UTC, and the 1<sup>st</sup> of January with an M1.0 at 0732UTC. Activity returned to low levels on the second, and was very low from the 3<sup>rd</sup> to the 5<sup>th</sup>, becoming low again on the 6<sup>th</sup>.

Geomagnetic activity was quiet on the 31<sup>st</sup>, quiet to unsettled on the 1<sup>st</sup> and 2<sup>nd</sup>, then quiet to active on the 3<sup>rd</sup>, before returning to quiet levels from the 4<sup>th</sup> to the 6<sup>th</sup>.

F2 critical frequencies in Southern Australia, were mostly near predicted values with some depressed periods of up to 15%, during local day on the 2<sup>nd</sup>, 5<sup>th</sup> and 6<sup>th</sup>; and depression of 20% after local dawn on the 4<sup>th</sup>.

Now, the forecast for the 7<sup>th</sup> to the 13<sup>th</sup> of January;

Solar activity is expected to be low levels, with a chance of M-class flares.

Geomagnetic activity is expected to be at quiet to unsettled levels, with active periods possible on the 8<sup>th</sup> and 9<sup>th</sup>.

Maximum Usable Frequencies are likely to be near predicted monthly values.

*Data courtesy of Space Weather Services.*

## Solar Flux Index update

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

Having finished December, we had a;

Minimum of 76, Average of 103 and a Maximum of 140  
With peak dates from the 17<sup>th</sup> to the 30<sup>th</sup>.

As we start January, we are expecting a;

Minimum of 84, Average of 103 and a Maximum of 120  
With peak dates from the 16<sup>th</sup> to the 26<sup>th</sup>.

And looking ahead to February, we are expecting a;

Minimum of 85, Average of 106 and a Maximum of 120  
With peak dates from the 10<sup>th</sup> to the 22<sup>nd</sup>.

*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>]

# Space Weather Summary for December 2021

*Compiled with data courtesy of Space Weather Services*

Solar activity was predominantly at Very Low to low levels throughout December, though some M-class flares resulted in Moderate activity on the 5, 17<sup>th</sup>, 20<sup>th</sup>, 22<sup>nd</sup> and 28<sup>th</sup>. There were numerous C-class flares, particularly in the second half of the month as several Ospot regions rotated across the solar disc. The largest flare was an M1.8 on the 20<sup>th</sup>. Many coronal mass ejections (CMEs) were also observed, but none significantly impacted Earth; there were no proton events at or above 10MeV level.

Geomagnetic conditions in the Australian region were generally quiet, though active periods were observed on the 1<sup>st</sup>, and some minor storm levels on the 19<sup>th</sup>, 20<sup>th</sup> and 27<sup>th</sup>; all of these were associated with coronal hole wind streams.

Ionising background solar flux was at low levels until the middle of the month. Numerous solar regions rotating onto the solar resulted in higher flux levels, peaking on the 22<sup>nd</sup> then declining, as the regions decayed or rotated off the disc. MUFs responded in kind; being lower in the first half of December, then rising and becoming enhanced above predicted monthly values apart from a depression on 20 December due to geomagnetic activity on the 19<sup>th</sup> and 20<sup>th</sup>.

MUFs began to decline late in the month but remained near predicted monthly values. Minor short-wave fadeouts impacting lower frequencies were observed in the Australian region on the 17<sup>th</sup> and 28<sup>th</sup>. The largest depression in the southern region resulted in MUFs depressed 20% below predicted monthly values, on the 2<sup>nd</sup>.

## What use is an F-call?

Tonight, we continue with this series, written and produced by Onno VK6FLAB. Each episode looks at different aspects of the diverse hobby of Amateur Radio.

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### **[Play File: 15-FCAL008.wav]**

*Duration 2m17s*

*In: "What use is an F-call?"*

*Out: "I'm Onno VK6FLAB"*

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For more information about this series, including transcripts and useful resources for F-calls, Onno's website is; [vk6flab.com](http://vk6flab.com), or follow him on Twitter, @VK6FLAB.

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## **ARRL DX news**

GUINEA; Jean-Philippe, 3X2021 is active from Conakry. Activity is on the HF bands. He has been active on 20 metres using SSB around 2100UTC.

BARBADOS; Chris, WA7RAR is active as 8P9CB from St. Phillip. Activity is in his spare time on 30 to 10 metres using CW and SSB.

GERMANY; Special event station DM60CSJ is active until July 31 to celebrate the 60<sup>th</sup> anniversary of Club Station Jesewitz.

KYRGYZSTAN; Andrea, HB9DUR is active as EX0DX from Bishkek, until January 10.

SWITZERLAND; Members of USKA Schaffhausen are active with special event station HB50SH during 2022 to celebrate the club's 50<sup>th</sup> anniversary.

COLOMBIA; Special event station 5K6RM is active until January 10 during the annual Manizales Fair. Activity is on 160 to 6 metres using CW, SSB, and various digital modes.

THAILAND; Look for E20AX/p to be active from Samet Island, IOTA AS-107, until January 10. Activity will be on 40 to 10 metres using CW, SSB, and FT8 with two to three stations active simultaneously. They may also try to be active on 80 metres.

NORWAY; Special event station LA100B is active during 2022 to celebrate NRRL's Bergensgruppen 100<sup>th</sup> anniversary.

BRAZIL; Look for ZY6A to be active from Friars Island, IOTA SA-023, from January 13 to 16. Activity will be on the HF bands.

GREECE; Special event call SX1CAF commemorates the first flight over Greece 110 years ago.

NORFOLK ISLAND; Rob, VK2FBBB is active as VK2FBBB/VK9 until January 16. Activity is on 80, 40, 15, and 10 metres using SSB, generally in the 0500 to 0900UTC time frame.

MONTSERRAT; Thaire, W2APF will be active as VP2MDX until February 18. Activity will be holiday style on 80 to 6 metres using CW and SSB.

INDIA; Members of the West Bengal Radio Club will be active with special call sign AU1GSI from Sagar Island, IOTA AS-153, until January 16, to draw attention to the annual holy dip ritual, Ganga Sagar Mela 2022. Activity will be on 40, 20, and 15 metres.

MEXICO; In celebration of the 90th anniversary of the FMRE, look several stations using the 4A90 prefix until the end of March.

THIS WEEKEND ON THE RADIO; The ARRL RTTY Roundup, CW QRS Xmas Activity, NCCC RTTY Sprint, QRP 80-Metre Fox Hunt, NCCC CW Sprint, K1USN Slow Speed Test, PODXS 070 Club PSKFest, YB DX Contest, Old New Year Contest, SKCC Weekend Sprintathon, RSGB AFS CW Contest, EUCW 160-Metre CW Contest, NRAU-Baltic Contest and DARC 10-Metre Contest are all on tap over this weekend.

The K1USN Slow Speed Test, 4 States QRP Group Second Sunday Sprint, OK1WC CW Memorial, Worldwide Sideband Activity Contest, RTTYOPS Weeksprint, QRP 40-Metre CW Fox Hunt, Phone Fray, CWops Mini-CWT CW Test and VHF-UHF FT8 Activity Contest are all scheduled for January 10 to 12.

## WICEN News

WICEN weekly voice nets are on Sunday evenings, starting at 6pm, on either the Chatswood 2 metre repeater, or the Kurrajong 70cm repeater. Please check the WICEN website for details.

The VK2RWS 70cm repeater is now back on the air, operating from Hornsby. It is not currently linked to the Kurrajong repeater. Signal reports are welcome, and can be emailed to [tech.team@nsw.wicen.org.au](mailto:tech.team@nsw.wicen.org.au).

WICEN NSW, is a communications support squad of VRA Rescue NSW. The website is at [nsw.wicen.org.au](http://nsw.wicen.org.au).

WICEN ACT is part of the Canberra Region Amateur Radio Club. Their website includes WICEN and general Club information; its at [www.crarc.org.au](http://www.crarc.org.au).

WICEN Victoria has a weekly net is on each Tuesday at 8:30pm, on 3.6MHz. More details on the website at [vic.wicen.org.au](http://vic.wicen.org.au).

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## Club News

The next Monthly General Meeting will be held on Saturday the 5<sup>th</sup> of February. Due to COVID-19 related issues, the January general meeting was cancelled, and the Committee Meeting was held as an on-line meeting. Minutes of the Committee Meeting will be emailed to members to keep them abreast of club affairs.

The club's Friday Night Get together on Friday the 21<sup>st</sup> of January has been cancelled, along with the Club's annual Antenna Shoutout previously planned for Sunday the 6<sup>th</sup> of February. The inconvenience caused by the cancellations is regretted, but the Committee will continue to closely monitor the COVID-19 situation to ensure that future activities comply with restrictions and circumstances which may change at short notice.

Candidates for the Foundation, Standard and Advanced Licences can contact the club via PO Box 712 Port Macquarie NSW 2444. Assessments for the Advanced, Standard and Foundation licences will be run early in the New Year once sufficient candidates have registered their interest.

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 on 146.7MHz, which requires a 91.5Hz sub-audible tone for access. Access to VK2RPM is available via EchoLink for those outside the repeater coverage area. 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](http://orarc.org). The site contains a wealth of Amateur Radio items in addition to the club information. The newly published January 2022 web edition of the club's bimonthly newsletter "Oxtales" is online, and past issues can be viewed 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.*

## Central Coast Amateur Radio Club

The Club's committee has taken the decision to keep the clubroom closed until the 5<sup>th</sup> of February. This decision has been taken reluctantly, but the increased risk of transmission of the Omicron variant makes it a prudent step in the public interest. Month-end exams have likewise been cancelled.

Planning is underway for next year's field day, Mayham, scheduled for the 1<sup>st</sup> of May, 2022.

At the VK2RAG Somersby site, 70cm EchoLink and IRLP and the BrandMeister DMR repeater are still having problems. All other services are fully operational.

The Club's webSDR is now operating from Somersby; [websdr.ccarc.org.au](http://websdr.ccarc.org.au) is currently configured to listen on 6m, 2m, 70cm and 23cm.

The Club's Morning Tea net is currently on hiatus; However, the Weekly 2m net resumes this Thursday night at 8pm. Its on the VK2RAG repeater on 146.725MHz with a 91.5Hz tone for access, also via EchoLink on the CCARC and HAM conferences.

The SSTV net will resume on January 21.

SSTV and Weekly nets are also video streamed live to the club's Facebook page, and past nets can be replayed as well.

You can find out more about the CCARC on the web at [ccarc.org.au](http://ccarc.org.au); via phone on 02 43402500 or on social media by searching for Central Coast Amateur Radio Club; remember to "like" to follow for updates.

The club wishes all a safe and happy break,  
*73 Alan VK2MG*  
*Publicity Officer, Central Coast Amateur Radio Club.*

## 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; on the site, select the VK2 callsign and if requested, the HTML5 option. 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.

Give us a call 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.*

## Fisher's Ghost Amateur Radio Club

The first Monthly General Meeting of the Club for 2022, will be held on Tuesday the 25<sup>th</sup> of January, at McDonald's Woodbine, commencing at 7:30pm. Visitors wishing to learn more about the hobby of Amateur Radio are most welcome to attend. This meeting has been moved from Wednesday to Tuesday because Wednesday is Australia Day.

Entries in the Club's contest – the Ted Powell Memorial DX Challenge – are still open until the 14<sup>th</sup> of January. So, if you worked any DX between October and December 2021, head over to [contest.fgarc.org.au](http://contest.fgarc.org.au) and submit an entry. There are several easy ways to enter, details are on the website.

The Club's weekly net is at 7:30pm on Thursday evenings on the Club repeater, VK2RFG. The repeater is on 438.65MHz with a negative 7MHz input and a 91.5Hz tone for access. The repeater is also accessible via EchoLink.

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

*Submitted by Peter VK2PR*

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

## Hornsby and Districts Amateur Radio Club

The club's three weekly nets continue during January, and visitors are most welcome. These are;

Monday evenings at 8pm on the VK2RNS 2m repeater, 147.25MHz. No tone is needed for access, but 91.5 Hz is sent.

Wednesday's 80 metres net, also at 8:00 pm, on 3608.5kHz.  
"Morning Tea with HADARC", Fridays from 9am, on 7106kHz.

Both HF nets are plus or minus QRM; Listen for VK2MA.

The Club is planning a BBQ in Hornsby, at 6pm this Tuesday, January 11. Please confirm attendance with club secretary, Steve VK2AAV.

International Marconi Day is the UTC day of Saturday, 23 April. HADARC will once again be operating VK2IMD across various HF bands.

The Club's website has up to date details on club activities, getting setup for Jitsi Meet, plus weekly nets, a web-based contact form and the Covid Safety plan; it's at [www.hadarc.org.au](http://www.hadarc.org.au). The club has a group on Facebook, which can be found by searching for VK2MA, and on twitter, @VK2MA.

*Submitted by Julian VK2YJS  
HADARC Publicity Officer.*

[Jitsi Meet details:  
Phone: 08 7150 1136 and enter 3145759306#  
Web: <https://meet.jit.si/HADARC> ]

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## Activities on the air

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

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

**Oxley Region ARC** nets 7:30pm Thursday, 9am Sunday, VK2RPM 146.7Mhz with 91.5Hz tone.

**Great Lakes Radio Club** weekly net 7pm Monday, back on the VK2RGL Repeater, 147.1MHz with 91.5Hz tone, EchoLink VK2RGL-R.

**Westlakes** 80 metre nets Monday, Wednesday, and Friday at 9:30am on 3565kHz. 2m nets on 146.775MHz, see website for details.

**Hunter Radio Group** VK2AWX News 7:30pm Monday, on 146.9Mhz and 438.025MHz. Meeting net Wednesday 7:30pm on 146.9.

**Central Coast ARC** Net Thursday night at 8pm on VK2RAG, 164.725MHz with 91.5Hz tone, and on EchoLink.

**Amateur Radio Central West Group** lunchtime net 1pm daily; evening net Monday and Friday at 8pm, VK2RCW. HF net 8pm Wednesday 3653kHz.

**Illawarra ARS** Nets Saturday 9:30am on VK2RMP 146.850 and VK2RUW on 146.675; Tuesday 8:30pm, 3666kHz.

**Blue Mountains ARC** Nets on VK2RBM, 147.050MHz with 123Hz tone; Wednesdays from 8pm; Second Sunday of the month from 5pm.

**Waverley ARS** net 8pm Monday on VK2RBV, 438.1125MHz. Activities online and on air, see website for details.

**Sydney ATV Group** net 7:30pm Monday on 445.5MHz from Lawson.

**Fishers Ghost ARC net** 7:30pm Thursdays on VK2RFG, 438.65MHz with -7MHz offset and 91.5Hz tone required, also on Echolink.

**St George ARS** net 8pm Thursday, on VK2RLE 146.8MHz.

**HADARC** Monday night 8pm on VK2RNS, 147.25MHz, Wednesday from 8pm on 3608.5kHz, Friday 9am on 7106kHz.