

## **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.

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.

## **A note from our News Editor.**

VK2WI News reports on a wide variety of activities relating to Amateur Radio. For over 41 years, VK2WI has been Australia's only dedicated centre, continuously producing and transmitting amateur radio news and information bulletins on a regular basis.

VK2WI News is only possible due to the support and dedication of our broadcast team – members of Amateur Radio News South Wales that put in their time and effort to produce, present and operate these news bulletins every week.

Each quarter, we ask for volunteers to take part in the team's activities – and its that time again, where we call for those to put in the effort for the next three months.

But recently, we have been running rather short of volunteers. Without some broader support and contribution, we may reluctantly need to reduce the output of VK2WI bulletins.

Besides operating VK2WI Announcing and engineering for morning and particularly evening bulletins, there are roles available in producing scripts and audio items. If you can't make it to Dural on a regular basis, much of this work can be done remotely, and some items can be prepared on a schedule that suits you.

Of course, training and support are provided, too.

We receive more than 250 callbacks reported to VK2WI each week, suggesting that many people find VK2WI News a useful service. With your help, we can continue to provide an even better news and information service.

For more information or any enquiries, contact the VK2WI News team via email, [news@arnsw.org.au](mailto:news@arnsw.org.au).

*Mathew VK2YAP  
News Editor, VK2WI News.*

# Weekly Solar and Geophysical Report

For the period of the 23<sup>rd</sup> to the 29<sup>th</sup> of June.

First, the summary of activity;

Dates across the columns are	23 <sup>rd</sup>	24 <sup>th</sup>	25 <sup>th</sup>	26 <sup>th</sup>	27 <sup>th</sup>	28 <sup>th</sup>	29 <sup>th</sup>
10cm Flux	170	161	155	158	151	155	162
Fredericksburg A-Index	9	16	10	11	7	8	13
Australian A-Index	6	11	12	7	5	4	14 estimated
T index	109	113	122	110	104	93	103

Solar activity was at R1 level on the 24<sup>th</sup>, 26<sup>th</sup>, 27<sup>th</sup>, 28<sup>th</sup> and 29<sup>th</sup>. Each day a single M-class flare was observed. The strongest flare was M3.8, at 1415UTC on the 29<sup>th</sup>.

Geomagnetic activity remained below warning threshold. On the 29<sup>th</sup> a weak geomagnetic impulse of 8 nanoTesla, was observed at 0735UTC.

F2 critical frequencies in Southern Australia remained mostly near predicted monthly values, with enhancement of 15% observed during local night on the 23<sup>rd</sup>; enhancement of 15% all day on the 24<sup>th</sup>; increasing to 25 to 35% on the 25<sup>th</sup>; and enhancement of 15% observed during local day on the 26<sup>th</sup>.

The forecast, issued on the 30<sup>th</sup> of June, through until the 6<sup>th</sup> of July;

Solar activity is expected to be at R1 with a chance of R2 for the start of the week, with R0 to R1 expected later. Active solar region AR3544, which produced the M3.8 on the 29<sup>th</sup> of June, has increased in area and complexity; bring the chance of an R2 flare.

Geomagnetic activity is expected to remain below warning levels, with a chance for G1 on the 1<sup>st</sup> of July.

Maximum usable frequencies should be mostly near predicted monthly values up to 15% enhanced, but Shortwave fadeouts are possible on daylight HF circuits.

*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 June, we had a;

Minimum of 144, Average of 162, and a Maximum of 180  
With peak dates from the 2<sup>nd</sup> to the 10<sup>th</sup>, and the 19<sup>th</sup> to the 24<sup>th</sup>.

As we start July, we are expecting a;

Minimum of 130, Average of 165, and a Maximum of 175  
With peak dates from the 12<sup>th</sup> to the 23<sup>rd</sup>

And looking ahead to August, we are expecting a;

Minimum of 130, Average of 154, and a Maximum of 175  
With peak dates from the 7<sup>th</sup> to the 14<sup>th</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>]

## 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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### **[Play File: 15-FOAR048.wav]**

*Duration: 4m53s*

*In: "Today I'm going to talk about..."*

*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]

And now with this week's WICEN News, here's Richard VK2SKY;

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### [Play File: 17-E-WNS0702.wav]

*Duration: 1m45s*

*In: " WICEN NSW ..."*

*Out: "... at wicen.org.au."*

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#### [Transcript]

*WICEN had its monthly meetup at Dural this morning, for a simulated ground search communications exercise; the next meetup is on 6 August.*

*Weekend after next, the New South Wales SES "NavShield" bush navigation event is on, and WICEN will be providing communications support.*

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

*WICEN nets take place every Sunday evening at 6pm and 6.30pm, 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 and a 91.5Hz tone, with net controller VK2WIB; and the 6.30pm net will be on DMR Talk Group 3810, with net controller VK2WID.*

*WICEN NSW is a support squad of VRA Rescue NSW, specialising in tactical radio communications. In between activations, WICEN supports local community events: these provide practical training for members, and help raise the public profile of Amateur Radio.*

*To find out more, check out 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 recent and upcoming WICEN activities.*

*For information about other WICEN groups around Australia, visit the web at [wicen.org.au](http://wicen.org.au).*

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[WICEN NSW web site: <https://nsw.wicen.org.au/> ]

[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; and their July Coffee Morning is coming up at 10am on Thursday the 13<sup>th</sup> of July, at Brooklyn's Burger Bar, Thrumster.

The new VK2RPM RadNet DMR repeater will be installed at Middle Brother Mountain early in July; this will be done in conjunction with implementation of linking between the VK2RPM 2 metre repeater on 146.7MHz, and the VK2RCN 2 metre repeater at Telegraph Point, on 147.0MHz.

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](http://orarc.org). The May 2023 issue of the club's bimonthly newsletter "Oxtales" is now online, and past issues are on the website as well; and on Facebook, just search for Oxley Region Amateur Radio Club.

*From Henry VK2ZHE  
For the Oxley Region Amateur Radio Club.*

## **Westlakes Amateur Radio Club**

The next car boot sale is on Saturday the 15<sup>th</sup> of July. Its at the Club grounds, 6a York Street Teralba, starting at 8am.

You can set up a stall at no charge; but bring your own table. There will also be a BBQ and hot and cold drinks available.

All are welcome.

Westlakes has several on air nets each week, details are a little later on in this bulletin.

*Advised by Barrie VK2QG  
For the Westlakes Amateur Radio Club*



## Blue Mountains Amateur Radio Club

A reminder about the Club's monthly meetings on the first Friday of the month; the next is this coming Friday night the 7<sup>th</sup> of July. Meetings are at the Club Rooms, 4 Moore Street Glenbrook, in the Blue Mountains – doors open from 7pm for a 7:30pm start.

Visitors and prospective new members are most welcome.

There are several weekly nets – we have details in “Activities on the air” later in this bulletin – and the Club is trialling a DMR Net on Monday nights on Brandmeister channel 50520.

The Club has Foundation Classes bi-monthly, and Upgrade classes on Wednesday evenings, both online and at the Glenbrook clubrooms. Exams for other licence grades are also available on Foundation weekends.

Courses and exam days do fill-up quickly, so please contact the Club Secretary, Irene VK2VAN, via email [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.*

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## Central Coast Amateur Radio Club

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

Members are reminded that renewals are due. Membership forms have been sent out and need to be completed.

Last week the club held it's regular Show and Tell. Items ranged from a Blitzortung lightning detector (try saying that quickly) and an antenna tuning unit for a WW2 era Wireless set No. 19, through to an early Web in a Box unit, an industrial cooking oven controller and a display of large model ships that Glenn built by hand. Thanks to all who attended, and you can find a full report, with photographs of the items displayed, on the club's web site.

There are rumours of something brewing in the Central Coast area. It's not clear exactly what, but it might be a good idea to write down Sunday the 5<sup>th</sup> of May, 2024 in your diary... and keep an ear out for updates.

At VK2RAG Somersby, D-Star, RadNet DMR and 2m EchoLink services are fully functional; the 23cm repeater is currently off-air, as it is being replaced. 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.*

## St George Amateur Radio Society

The Society's next gathering is on Wednesday the 5th of July at Kyle Bay. You are probably familiar with your local repeater, you may even be listening to this broadcast through a repeater. But, have you ever wondered how does this happen every week, and how do repeaters actually work?

At the next gathering of the St George Amateur Radio Society, Paul VK2GX will give a presentation on the magic of repeaters, in particular the three repeaters sponsored by the society.

Paul will give an insight into how full duplex operation is achieved with such narrow frequency separation, how the ARNSW broadcast is re-transmitted, and from where do those unfamiliar voices and call signs originate. More importantly, what is involved in keeping a repeater operational.

And finally, just another reminder about the VK2RDX 2 metre repeater; from early July, a 91.5Hz tone will be required to access the repeater.

Details about all of the Society's repeaters, along with the Society's other activities, are on the website, [www.sgars.org](http://www.sgars.org).

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

## Hornsby and Districts Amateur Radio Club

Lat week was HADARC's June Monthly Meeting at Mount Colah Community Centre. The evening focused on things that went wrong with technology or ordering online so we were spoiled with good – and not so good - stories.

Chris VK2YMW presented an innovative wood splitter designed by a young New Zealand lady and how inspired he was by her design. But what was delivered was a cheap copy from Asia, more ornamental than practical. He said the cheap box was a giveaway before even opening the item.

Walter VK2XWB showed a model aircraft engine he purchased online. But it had been glued together – that's right, glued together, no screws for joints.

Then to the good, with an overview of a FT-107M restoration by David VK2CZ. David had done a meticulous update, both for electrical and mechanical improvements; the final look was most impressive.

We then moved to a video of radio proximity fuses developed in World War II. This fuse markedly increased the effectiveness of artillery by triggering the explosion of the shell by its proximity to the target. The device transmits a radio signal, and by detecting the strength of the signal reflected from the target, the distance of operation may be controlled. Indeed, an interesting use of radio and signal management.

The July mid-monthly meeting will be over dinner at Magpies; so why not stop by HADARC and meet some fellow Amateurs. More details will follow in the coming weeks.

73 for now,

*Matt VK2BAI*

*For the Hornsby and Districts Amateur Radio Club.*

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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** *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

**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, 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, 123Hz tone.

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

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

**Oxley Region ARC** from 9am, VK2RPM.

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