

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

Last weekends Trash and Treasure was well-attended on a fine, mild morning. After BBQ lunch, great use was made of the grassed area in front of the Centenary Building for visitors to stand and talk to each other, as it is currently off limits for car parking. Many also stayed on for an interesting discussion at the radio experimenters group gathering at noon. The next T&T is on the 29th of September.

Also Last Sunday morning, ARNSW had the pleasure of having WIA President, Greg VK2GPK on site. Also on site was ARNSW President Mathew VK2YAP and together they talked to those present about the upcoming WRC 2019 conference. These conferences are held every few years, and the decisions made there affect all users worldwide of the radio spectrum is used worldwide, including Radio Amateurs.

The WIA - as the National Amateur Radio society for Australia - has the privilege to have a representative invited as part of the Australian government delegation attending WRC in November 2019. In support of Amateur Radio representation, ARNSW president Mathew took the opportunity to present the WIA - through Greg - a donation to help fund our attendance. Some photos are available on the ARNSW Facebook page.

While WIA members help fund attendance as part of their membership fee, other individuals or members of clubs can contribute to supporting this important activity; contact can be made directly with the WIA, at their national office.

ARNSW members on the email notice list will have received the first issue of *All Access*, the new newsletter of Amateur Radio NSW. Paper copies should arrive during the week, and it will soon be available for download from our website. The production schedule is every two months, coming out in time for that month's Trash and Treasure.

On Saturday the 17th of August, there is both the Remembrance Contest and the start of the International Lighthouse and Lightship Weekend. The RD contest starts at 1pm local time, and VK2WI will transmit the official address immediately before. As this news goes to air the duration of the address is not known, so listen on the VK2WI frequencies from 12.30pm.

Education Update

The next Foundation Course and examination weekend at ARNSW is in September, on the weekend of the 14th and 15th. Bookings close on Friday the 30th August, and contact to the Education team is best made by email, to education@arnsw.org.au. The Foundation Manual is available from VK2WI on a Sunday morning or late Monday afternoon from the Library, but please email first to make arrangements.

For something a bit different in amateur radio education – don't forget that it is now possible to get a US amateur licence, without leaving Australia. VEA is a group of ARRL Volunteer Examiners, and they are planning an examination session here at VK2WI Dural, on Sunday the 25th of August, starting at 9am.

At this session, it is possible to take whatever exams are necessary to obtain a new US licence at your desired level, or to upgrade, for a single session fee.

Candidates need to obtain a US address, which can be a friend's address, or a Shopmate one; and use this to register for an FCC Registration Number, (FRN) on the FCC CORES site. Print these, and bring them with your ID, pencils, a pen, and a calculator on August 25.

If you are coming along, please email: vec.nsw@veexams.com to register.

Weekly Solar and Geophysical Report

For the period of the 26th of July to the 1st of August.
First, the summary;

Dates across the columns are	26 th	27 th	28 th	29 th	30 th	31 st	1 st
10cm flux	68	67	67	66	66	67	67
Fredericksburg Index (Afr)	4	4	7	5	8	10	7 estimated
Australian Index (Aaus)	0	2	2	1	5	3	3 estimated
T index	-6	-1	+4	-6	-4	0	-1

Solar activity was very low all week.

Geomagnetic activity was quiet from the 26th to the 29th, quiet to unsettled on the 30th and 31st of July, and returned to quiet conditions on the 1st of August.

F2 critical frequencies in the southern Australian region, remained near predicted monthly values during daylight hours, all week. Some enhanced conditions were observed during local nights; 40% on the 28th, 20% on the 30th, 45% during the night and 25% after local dawn on of the 31st of July. The 1st of August also saw enhancement of 30% during local night and 20% after local dawn.

Now, the forecast for the 2nd to the 8th of August;

Solar activity is expected to be very low.

Geomagnetic activity is expected to be at unsettled to active levels between the 4th and 6th of August, with quiet to unsettled conditions on other days.

Maximum Usable Frequencies should remain 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 just finished July, the figures were a;

Minimum of 66, Average of 67, and a Maximum of 68
With peak dates from the 10th the 11th, and the 20th to the 28th

As we start August, we have a;

Minimum of 66, Average of 67, and a Maximum of 67
With peak dates from the 3rd to the 31st

And looking ahead to the prediction for September, we are expecting a;

Minimum of 67, Average of 67, and a Maximum of 67
With no peak predication at this time.

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 July 2019

Compiled with data courtesy of Space Weather Services

Solar activity was again at Very Low levels this month, with no significant solar flares observed. There were also no significant geomagnetic disturbances. There was a high-speed solar wind stream associated with a coronal hole, observed between the 9th and 10th of July, but this only resulted in a mild elevation of geomagnetic activity on the 10th.

The ionosphere was relatively stable, with no significant ionospheric depressions. Some mild depressions were probably in association with continued lower solar flux levels; the maximum depression for the Southern Australian region was observed on the 11th, with MUFs depressed 15% below predicted monthly values.

Ongoing low levels of solar activity have led some people to speculate that we have reached solar minimum, and that the new solar cycle will soon begin. Taking the usual estimate of a solar cycle being about 11 years long, this is about the right time for the new cycle to start; The current cycle, Cycle 24, started at the solar minimum in December 2008.

But... its not quite that straightforward. The solar minimum is derived from a calculation of the 12-month smoothed sunspot number; so we need at least six months of data, after the minimum, to make an accurate calculation. Sometimes, we have to wait a bit longer still, to make sure the smoothed sunspot number has started to rise. Indeed in 2008, the start of the new cycle was proceed by a protracted minimum, which continued for quite a few months. So we may be seeing the start of Cycle 25 soon, but we won't know for sure, until later next year.

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What use is an F-call?

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

[Play File: E-FCAL064.wav]

Duration: 1m55s

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

Out: "I'm Onno vk6flab"

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

ARRL DX news

GEORGIA; Darek, SP9DLM will be active as 4L/SP9DLM from Kobuleti until August 16. Activity will be on 40, 20, 15 and 10 metres.

MADAGASCAR; Giovanni, IZ2DPX will be active as 5R8PX from Nosy Be, IOTA AF-057, until August 17. Activity will be on the HF bands using SSB and various digital modes.

MALDIVES; Gil, IZ2DLV plans to be active as 8Q7GB from Nika Island, IOTA AS-013, until August 18. Activity will be holiday style on 40 to 15 metres using CW, SSB and FT8.

CHILE; Special event calls CB70E, CB70K, CB70O and CB70Y are active until August 31 to celebrate the 70th anniversary of Condorito, a Chilean cartoon character very popular throughout Latin America.

ST. PAUL ISLAND; A group of operators are active as CY9C until August 8. Activity is on 160 to 6 metres using CW, SSB, FT8 in DXpedition mode, EME, and on various Satellites.

ENGLAND; Members of the Martello Tower Group are active with special event call GB55RC until August 5 to celebrate 55 years of Radio Caroline.

ECUADOR; Joe, IZ1HGP is active as HC2/IZ1HGP until the end of August. Activity is on 160 to 6 metres.

PANAMA; Members of the Radio Club de Panama are active with special event call sign HO1D during August to celebrate the 500th anniversary of Panama City.

ITALY; Members of the ARI Section Fidenza are active with special event call II4BRD during August to commemorate Cesare Bardeloni, one of Italy's pioneers in the history of radio.

LITHUANIA; Special event station LY30A is active until September 29 to commemorate Black Ribbon Day.

BULGARIA; Members of the Bulgarian Radio Club Blagovestnik are active with special event station LZ304AE during August to honour Orthodox Saints.

ALAND ISLAND; A group of operators will be active as OH0UDG until August 17. Activity is on 80 to 10 metres using CW, SSB and various digital modes.

CZECH REPUBLIC; A large group of operators are active with special event call signs OL88YL and OL88YL/p until August 8, including various SOTA activations.

LORD HOWE ISLAND; Rick, AI5P is active as VK9APX until August 10. Activity is holiday style on 40 to 17 metres using CW and FT8.

BERMUDA; Joshua, W9HT is active as W9HT/VP9 from Hamilton Parish, IOTA NA-005, until August 6. Activity is on the HF bands and 6 metres.

OPERATIONS APPROVED FOR DXCC CREDIT. The following operations are approved for DXCC credit: St. Paul Island, CY9C, 2019 operation; Afghanistan, T6AA and T6A, 2019 operations.

COUNTRY NAME CORRECTION. As reported in a previous DX News bulletin, the correct country for Kalanchakskiye Island, IOTA EU 179, is Ukraine.

THIS WEEKEND ON THE RADIO. The ARRL 222 MHz and Up Distance Contest, 10-10 International Summer SSB Contest, North American CW QSO Party, QRP 20-Metre CW Fox Hunt, NCCC RTTY Sprint, NCCC CW Sprint, European HF Championship, WAB 144 MHz Low Power Phone and the SARL HF Phone Contest are all scheduled for this weekend.

The ARS Spartan CW Sprint is scheduled for August 6.

The CWops Mini-CWT Test and Phone Fray are scheduled for August 7.

The Canadian National Parks on the Air, CNPOTA, event continues throughout 2019, with special stations active from Canada's parks and historic sites.

WICEN News

The Annual General Meeting of WICEN NSW will be held here at ARNSW, 63 Quarry Road Dural, at 2pm on Saturday, 21st of September.

There was a WICEN training session here at VK2WI Dural this morning. WICEN members are also encouraged to take advantage of the free courses offered by the Office of Emergency Management.

Operators are sought for two upcoming events. First is the Trek for Timor, in Kangaroo Valley on Saturday, September the 14th. This scenic walk stretches 14km from Kangaroo Valley, up McPhall's trail to Fitzroy Falls, optionally continuing to Meryla Pass, or all the way back to Jack's Corner Road. This event supports development projects in Timor-Leste, visit the website kvrp.net.au for details.

WICEN is also looking for extra operators for the Hounslow Classic, a running event in the upper Blue Mountains, on September 28 & 29.

A long-standing event on the WICEN calendar is the **Hawkesbury Canoe Classic**, including the new Classic Relay, running from Saturday October 26th, overnight to Sunday the 27th.

The WICEN website is nsw.wicen.org.au. Facebook users will find an official WICEN NSW page, and an informal national WICEN group.

The WICEN Mid North Coast Region meets at 3:30pm on the first Saturday of the month, at SES HQ, Central Road, Port Macquarie. The region is also running an HF net on Thursday evenings from 7pm, on the band-plan's 80 metre WICEN frequency of 3.6MHz.

WICEN ACT is part of the Canberra Region Amateur Radio Club, supporting events in the ACT and Capital Country, and on the South Coast of NSW. August 6th is the BMSC Narooma Rally; and the ACTERA Brookvale Horse Endurance Ride is September 2nd and 3rd, on the North-West border of the Territory. In October, on the 4th and 5th, WICEN is providing support for ANU's Inward Bound; the LCCC Monaro Stages are on Saturday the 19th; and Fitz's Challenge is on Sunday the 27th. For more information, see the WICEN and Events pages on www.crarc.ampr.org.

WICEN Victoria will be supporting the Eureka Rush on August 25th, held around Beaufort, near Ballarat. Field Weekend is on September 20th to 22nd, and the Stockman's Rally is on October 27th in Big River State Forest. The weekly net is on each Tuesday at 8:30 to 9:30 pm, on 3.6MHz. More information on WICEN Victoria can be found on the website, vic.wicen.org.au.

[OEM Link; <https://www.emergency.nsw.gov.au/Pages/emergency-management/Training-and-Capability/Training-and-capability.aspx>]

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Club News

We start this week, with news from the Oxley Region Amateur Radio Club. Yesterday saw the club's AGM, with the following office bearers being elected; President is Henry VK2ZHE; Vice President is Paul VK2ICQ; Secretary is Henry VK2ZHE; and Treasurer is Dennis VK2DAM.

Other Officials elected at the meeting are; Larry VK2CLL, Arthur VK2ATM, Rob VK2CRF, John VK2AYQ, Bruce VK2HOT, John VK2KHB, Ivan VK2IJS, John VK2KC, and Bob VK2ZRE.

The next meeting will be the Friday night gathering; at 7pm on the 16th of August, in the SES Building, Central Road, Port Macquarie.

Club station VK2BOR will participate in the International Lighthouse and Lightship weekend and the Remembrance Day contest, on the weekend of the 17th and 18th of August. VK2BOR will operate on HF and VHF from the club's Communications Caravan which will be set up in the carpark of the Tacking Point Surf Life Saving Club. This is the nearest practical location for the station as the road to the Tacking Point Lighthouse is currently closed for a major upgrade.

The club conducts two nets each week; the mid-week net starts at 7:30pm on Thursday nights, and the weekend net starts at 9am on Sunday mornings. Both nets are on the VK2RPM 2 metre repeater on 146.7MHz, which requires a 91.5Hz sub-audible tone for access.

Visitors are always made very welcome at the club's monthly general meetings at 2pm on the first Saturday of each month, and at the Friday night gathering at 7pm on the evening of the third Friday of each month. The venue for all these meetings is the SES Building in Port Macquarie.

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 July 2019 issue of the club's bimonthly newsletter, Oxtales, is now online, and past issues are available on the website as well. The club is also on Facebook; just search for ORARC.

*Submitted by Henry VK2ZHE
For the Oxley Region Amateur Radio Club.*

Central Coast Amateur Radio Club

The VK2RAG 70cm repeater now has P25 operational again, but D-Star still currently offline. Club volunteers are still working to restore normal services.

A reminder that the Club's weekly 2m net starts at 7pm on Thursday during the winter months.

The next Central Coast WICEN meeting will be held at the clubrooms on Saturday the 10th of August and all are invited, whether a WICEN member or not. There is no Club lecture on the 17th August due to the Annual General Meeting; there are plenty of positions to be filled.

Looking further ahead, the Shahzada [*sha-ZAR-da*] 400km Horse Enduro will be as usual on the last full week of August; starting on the 25th and running until the 31st. Although not an official Club event, many members take part in it. You can turn up for the full week, or just for a day or so, and you will have fun; especially if you have a four-wheel drive.

Meetings of the Central Coast Amateur Radio Club are at the Clubrooms in Dandaloo St, Kariong, just past the fire station. Meetings start at 1pm, preceded by the famous sausage sizzle run by master chef Steve VK2SKC, from noon, followed by Karen VK2AKB's home cooking; a specialty being her homemade cakes and pikelets.

The Clubrooms are accessible by bus, with a stop just opposite Dandaloo St, serviced by the route 34 bus from Gosford railway station every hour; and one can usually arrange a lift back. The Clubrooms are usually open from 10.30am on Saturday, for general chit-chat and access to the Club workshop and library.

The Club relays VK2WI News every Sunday morning and evening. Callbacks are taken after the morning news only, on the Somersby 6 and 2m repeaters VK2RAG on 53.725 and 146.725 MHz respectively; both repeaters require the standard sub-audible tone of 91.5 Hz.

The 70cm VK2RAG repeater on 439.950MHz is a mixed-mode repeater; currently supporting analogue FM and P25, with IRLP and Echolink access coming soon. A 91.5 Hz tone is required for analogue access, and highly recommended for receiving.

Along with these, there is a packet radio BBS on 147.6 MHz, as VK2EHQ; it can also be accessed via the digipeater VK2RAG-1.

There is a net every Thursday, starting at 7pm on Thursday during the winter months, on the 2m repeater VK2RAG on 146.725; all members are encouraged to join.

Club news is happily accepted at publicity@ccarc.org.au, preferably by noon on Friday. Listeners can “join” the net by email to netmaster@ccarc.org.au and their comments will be read out.

The Club also has a Facebook page: look for “centralcoastarc” and be sure to “like” it to receive further updates. There is also a Twitter account on @ccarclub [“At CC AR Club”], and a YouTube channel of the weekly streaming world-wide news via several modes which is proving to be quite popular, especially with Amateurs both interstate and overseas.

Further information about the Central Coast Amateur Radio Club can be found on the website, www.ccarc.org.au.

Dave VK2KFU

Publicity Officer, Central Coast Amateur Radio Club.

Hunter Radio Group

The next meeting of the group is on this Friday the 9th of August. It's at the Adamstown Bowling Club, 504 Glebe road Adamstown, starting at 7:30pm. There will be a lecture presentation at the meeting.

The Group conducts a Monday night broadcast starting at 7.30pm, on the Group's Repeaters, 146.9 MHz on 2 metres, and 438.025MHz on 70cm. Callbacks are taken after the broadcast.

*Regards from Rodney VK2CN
Secretary, Hunter Radio Group.*

Waverley Amateur Radio Society

The August meeting will feature a special talk by Kerrie Doherty entitled "The Dish was not the whole story: Australia's role in the Apollo lunar program".

The Dish is a delightful Aussie film about Australia's role in the Apollo 11 lunar landing. However, while it's "based on a true story", we must remember that it is only a movie: its focus on the crucial role played by the Parkes Radio Telescope in bringing the live television broadcast of the Apollo 11 lunar landing to the world, leaves untold the much larger role in the Apollo program played by space tracking facilities in Australia.

How did a lightning strike help to bring satellite communications to Australia? How can an Australian experiment placed on the Moon during Apollo help with future lunar exploration? How did the Parkes telescope contribute to NASA's Deep Space Network? How did Australia really bring the Apollo 11 landing to the world? Join space historian Kerrie Dougherty as she delves into the larger story behind *The Dish* to find out the answers.

Kerrie Dougherty is an independent space historian, curator and educator, who was previously Curator of Space Technology at the Powerhouse Museum. She is the author of *Australia in Space*, a comprehensive history of Australian space activities, a lecturer in space humanities for the International Space University and an elected Member of the International Academy of Astronautics.

So keep the date free; Wednesday, August the 21st. The meeting and talk will commence at 7:30pm; visitors will be most welcome. Please let the secretary know of your attendance by email, to secretary@vk2bv.org, so that arrangements to accommodate expected numbers can be made.

The next shack night is scheduled for Wednesday, August 7th starting at 7:30pm. The next project day is Saturday September 7th commencing at 1:30pm. And as usual, the club is open most Tuesdays from 10:00am until 3:00pm.

The Society's Morse code group meets on the first Sunday of each month at 11:00 am at Rose Bay, so that was on today...

The next Foundation weekend is scheduled for September 14th and 15th. Closing date for enrolments is August 28th; See the club website for details of how to reserve your place.

Don't forget the club's weekly net on the VK2RBV repeater from 8:00pm every Monday.

For more information on the Waverley Amateur Radio Society, visit the website at vk2bv.org. You can use the contact form on the website to obtain further information.

*73 from Eric VK2VE
Broadcast Publicity Officer*

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St George Amateur Radio Society

The next gathering of the Society is on this coming Wednesday evening, the 7th of August.

Roland VK2YAD will be hosting an open forum on "various software for the ham shack" including such things as measuring, generating and monitoring tools available in soft form. Roland will try to cover some of the CAT control systems and Sat control systems as used by radios used by amateur radio operators.

Roland will be asking the audience to nominate what software they use in an attempt to build up a list as to what programs are available and for free!

There will be the usual refreshments; All members, local amateurs and others interested are invited to attend.

The meeting rooms are at Donnelly Park, Kyle Parade, Connells Point – near South Hurstville, and the gathering starts at 7.30pm on Wednesday 7th of August.

The "What Three Words" address for the club is "torch bath frosted".

[\[http://map.what3words.com/torch.bath.frosted\]](http://map.what3words.com/torch.bath.frosted)

*Advised by Peter VK2EMU
for the St George Amateur Radio Society.*

Hornsby and Districts Amateur Radio Club

The next meeting of the club is an informal meeting on Tuesday the 13th of August, starting at 8pm. Its at Mt Colah Community Centre, near the northern end of Pierre Close, opposite the eastern entrance of Mt Colah railway station. The monthly general meeting will be on the 27th.

The Club operates a 70cm Repeater VK2RNS at Hornsby, on 439.975 MHz, with a - 5 MHz offset. In FM it uses a 91.5Hz sub-audible tone, and in P25, the NAC is 293. Back on-air is VK2RHT at Chatswood, a DMR-only repeater on 438.350 MHz, with a -5.4 MHz offset. The "Color Code" is 1, and it is linked to the VKDMR network.

The Club runs three nets each week, including on public holidays. Monday's net starts at 8pm on the VK2RNS 2 metre repeater, 147.250MHz No tone is required, but a 91.5 Hz tone is sent. The 80 metre net is on Wednesday evenings on 3608.5 kHz, also from 8pm, and Morning Tea with HADARC is on or near 7106 kHz from 9am on Fridays.

HADARC's website is at 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.*

Summary of coming events;

August

St George ARS gathering on the 7th
Waverley ARS shack night on the 7th
Hunter Radio Group meeting at Adamstown on the 9th
Central Coast WICEN meeting on the 10th
BMARC education weekend, 10th and 11th
HADARC mid-monthly meeting on the 13th
Illawarra ARS meeting on the 13th
Central Coast ARC AGM on the 17th
Waverley ARS meeting on the 21st
SARCFest – Summerland ARC at Lismore on the 25th
United States licence exams at ARNSW on the 25th
Shahzada horse Enduro, a WICEN event, from the 26th to the 30th
HADARC monthly general meeting on the 27th
ARNSW Foundation Course bookings close on the 30th
Waverley ARS Foundation course bookings close on the 31st

September

BMARC Monthly Meeting on the 6th
ARNSW Foundation Course and licence exams on the 14th and 15th
Waverley ARS Foundation and Assessments, September 14th and 15th
Special ARNSW licence assessments at Dural on the 21st
WICEN NSW AGM at ARNSW Dural on the 21st
ARNSW Trash & Treasure and Radio Experimenters Group on the 29th

October

Hawkesbury Canoe Classic, a WICEN event, from the 26th to the 27th