

#### **Down The Coax**

#### Monthly meetings & Friday Nights held in the SES Building Central Road, Port Macquarie.

Ross Hull Memorial Contest 1 to 31 January 2024

Monthly General Meeting Saturday 6 January 2024 2:00 pm

Coffee Morning - Brooklyn's Burger Bar, Thrumster 10am Thursday 11 January 2024

Summer VHF-UHF Field Day Saturday 13 & Sunday 14 January 2024

> Friday Night Get-Together Friday 19 January 2024 7.00 pm

AX Prefix May be Used on Australia Day Friday 26 January 2024

Australia Day Contest 2200 UTC 25th January to 1000 UTC 26th January 2024

Monthly General Meeting Saturday 3 February 2024 2:00 pm Guest Speaker TBA

ORARC Antenna Shootout Postponed to cooler time of year – Date to be confirmed

Coffee Morning - Brooklyn's Burger Bar, Thrumster 10am Thursday 8 February 2024

Friday Night Get-Together Friday 16 February 2024 7.00 pm

Monthly General Meeting Saturday 2 March 2024 2:00 pm Guest Speaker TBA

Coffee Morning - Brooklyn's Burger Bar, Thrumster 10am Thursday 14 March 2024

> Friday Night Get-Together Friday 15 March 2024 7.00 pm

John Moyle Memorial Field Day Saturday 16& Sunday 17 March 2024

Urunga Convention - To be Confirmed Saturday and Sunday 30 and 31 March 2024

| Nets on Voice Repeater VK2RPM 146.700 MHz |          |                      |                                  |  |  |  |  |
|---|----------|----------------------|----------------------------------|--|--|--|--|
| Sundays<br>(0900 Local)                   |          | <b>Thur</b><br>(1930 | <b>Thursdays</b><br>(1930 Local) |  |  |  |  |
| January 2024                              |          |                      |                                  |  |  |  |  |
|   |          | VK2EM                | Jan 4                            |  |  |  |  |
| VK2FMGM                                   | Jan 7    | VK2ZHE               | Jan 11                           |  |  |  |  |
| VK2FMGM                                   | Jan 14   | VK2ICQ               | Jan18                            |  |  |  |  |
| VK2FMGM                                   | Jan 21   | VK2EM                | Jan 25                           |  |  |  |  |
| VK2FMGM                                   | Jan 28   |                      |                                  |  |  |  |  |
| February 2024                             |          |                      |                                  |  |  |  |  |
|   |          | VK2ZHE               | Feb 1                            |  |  |  |  |
| VK2FMGM                                   | Feb 4    | VK2ICQ               | Feb 8                            |  |  |  |  |
| VK2FMGM                                   | Feb 11   | VK2EM                | Feb 15                           |  |  |  |  |
| VK2FMGM                                   | Feb 18   | VK2ZHE               | Feb 22                           |  |  |  |  |
| VK2FMGM                                   | Feb 25   | VK2ICQ               | Feb 29                           |  |  |  |  |
| March 2024                                |          |                      |                                  |  |  |  |  |
| VK2FMGM                                   | March 3  | VK2EM                | March 7                          |  |  |  |  |
| VK2FMGM                                   | March 10 | VK2ZHE               | March 14                         |  |  |  |  |
| VK2FMGM                                   | March 17 | VK2ICQ               | March 21                         |  |  |  |  |
| VK2FMGM                                   | March 24 | VK2EM                | March 28                         |  |  |  |  |
| VK2FMGM                                   | March 31 |                      |                                  |  |  |  |  |
|   |          |                      |                                  |  |  |  |  |

**Net Controllers' Roster** 

#### A happy customer!

The following good news story was sent in from John VK2KC of a comment made by VK2FLY on the Club's Facebook page. Thanks to all.



jaycar\*

#### Continued from front cover

he could attend the ORARC and Mid North Coast WICEN January meetings. Eric addressed the ORARC meeting and spoke on several Amateur Radio NSW matters of interest. It was an opportunity for the ORARC members present to personally pass on their thanks to ARNSW for so generously providing the Motorola DMR repeaters for Radnet the VK2RCN Telegraph Point and VK2RPM Middle Brother repeater sites.



Above Rob VK2CRF, Arthur VK2ATM, Larry *VK2CLL and John VK2KHB at a recent meeting.* 

Below

Peter VK2PX, Henry VK2ZHE and Eric VK2VE



John VK2PJW and new member Ben VK2BJW



Peter VK2MPK

The next Monthly General Meeting is on Saturday the 3rd of February 2024. A guest speaker has not yet been secured. If there is no guest speaker, after the 15 minute meeting there will be business an opportunity for "show and tell" and short talks from the floor. Alternatively, one of the many interesting Amateur Radio videos that are available can be shown on the large video screen.

Please let the committee know If you have any suggestions or contacts for future presentations. So far there is a suggestion for an astronomy presentation.

The monthly Friday night get togethers at 7pm on the third Friday of each month are an excellent opportunity to meet up with fellow members. Members are invited to bring items along for "Show and Tell". There is always something interesting to look at and discuss. It is also an opportunity to bring equipment in if you would like assistance from the collective "brains trust". Rag chewing and brainstorming over tea, coffee and biscuits is always popular.

## **Coffee Mornings**

The informal Coffee Mornings at 10am on Thursday of each month second the continue to be popular. The venue is Brooklyn's Burger Bar in the Sovereign Hills shopping centre at Thrumster.

The first Coffee Morning for 2024 was on Thursday the 11th of January 2024. It was particularly well attended with a couple of long-time members

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including Stuart Melville VK2KSM and Keith Bayliss VK2PTL attending for the first time.

The next Coffee Morning will be at Brooklyn's Burger Bar at Thrumster at 10am on Thursday the 16th of February 2023.

The Coffee Mornings are a great opportunity to meet fellow members and their families socially over a leisurely morning tea.

## **Coming Events**

ORARC 2024 Field Day 8 & 9 June



The ORARC 2024 Field Day takes place on Saturday the 8th and Sunday the 9th of June during the Kings Birthday long Weekend. The 2024 Field Day will be the 48th Annual Field Day.

The Field Day venue will be the Wauchope Showground Hall. This venue has proven to be very popular. The hall has been booked again for the 2024 Field Day.

The Wauchope Showground hall is spacious with plenty of off-street parking.

On site camping is available and the Wauchope Showground is pet friendly. Early bookings to the live-in caretaker on phone 0475 111 074 are essential

http://www.wauchopeshowsociety.com.au/

camping.html as the camp sites are very popular during the Kings Birthday Holiday weekend. Rates are very reasonable with power available. There are toilets and hot showers. You can even stable your horse!

The Field Day Dinner will be at 6 pm on the



evening of Saturday the 8th of June 2024 in the Seabreeze Function Room at the Port Macquarie Golf Club. Thank you to Gary Ryan VK2ZKT of Radio Supply for sponsoring the function room for the dinner. Gary has kindly sponsored the hire of the room for several years and ORARC is indebted to Gary for his continuing sponsorship. The Golf Club has an extensive menu to suit all tastes. Meals are at club prices.

Planning for the 2024 Field Day has commenced so please consider offering your assistance. The committee will be very pleased to hear from you. The position of Field Day Manager is still open, and there are lots of tasks to volunteer for.

#### Summer VHF UHF Field Day Saturday 13th and Sunday 14th January 2024

The event runs from 12 noon on Saturday the 13th to 12 noon on Sunday the 14th of January 2024.

This year the club station VK2BOR did not operate in the Summer VHF UHF Field Day.

The VHF/UHF Field Days are held three times a year, in Summer, Winter and Spring. The next one is the Winter VHF/UHF Field Day on the weekend of the 22nd and 23rd of June 2024. Club members are encouraged to participate in these Field Days. This can be done using home stations, or perhaps operating portable *Continued on next page* 

or mobile. If enough members do this, quite respectable scores can be amassed by working each other. Activity breeds activity so amateurs from surrounding areas will hopefully be tempted to come on air and add to the number of stations that can be worked.

Six metres has been open regularly with good sporadic E contacts into VK3, VK4, VK5, VK6, VK7 and ZL. Amongst the ORARC members who have been adding six metre contacts to their log books in VK2EM. Rob are Bruce January VK2CRF, Paul VK2UPR, Barry VK2ZHE, VK2LBG. Henry Steve VK2ZVG and Grahame VK2FA.

It is worth mentioning that the higher HF bands have been opening on an almost daily basis. There has been a lot of activity on 17, 15, 12 and 10 metres on both the digital modes such as FT8 and on SSB phone. There has even been some CW activity. Darren VK2MIA is often mobile on 10 metres SSB.

The path from the Mid North Coast of NSW to Tasmania is often open on 10 metres, particularly in the mornings. Don't forget that there is FM simplex and repeater activity on 10 metres above 29 MHz. The FM simplex calling frequency is 29.600 MHz.

The Mt Nelson VK7RHF 29.68 MHz repeater in Hobart is back on the air and is often heard in Port Macquarie with a noise free signal. The input frequency for VK7RHF is 29.58 MHz and the repeater requires a 91.5 Hz CTCSS tone for access. With only 100 kHz separation between receive and transmit frequencies this repeater has three remote receivers with voting so that the strongest signal will key the repeater. Note that VK4RTQ in Towoomba and VK6RHF in Perth are also on the same frequency pair. To access VK4RTQ requires a 146.2 Hz CTCSS tone and VK6RHF requires a 179.9 Hz CTCSS tone.

## Antenna Shootout Day 2024

In earlier years the club's popular annual Antenna Shootouts were held on the first Sunday in February at the Tuffins Lane sports fields. However, everyone agreed that the weather was too hot in February so last year Larry Lindsay VK2CLL and his wife Penny very kindly hosted the antenna shootout on Sunday the 14th of May 2023 at their property at Huntingdon, a short distance west of Wauchope. The weather in May was very pleasant and everyone who attended thoroughly enjoyed both the social and technical parts of the day.

The 14th of May was Mothers' Day and partners were made very welcome and they enjoyed their own celebration while the antenna measurements were being made. This year Mothers' Day is on Sunday the 12th of May 2024. The Antenna Shootout date will be finalized soon but it will likely be the Sunday before or after Mothers' Day. The details will be in the March 2024 issue of Oxtales.

## Wyong Field Day 2024



The Central Coast Amateur Radio Club 2023 Wyong Field Day was cancelled. After previously being held in February each year for over half a century, the Field Day was held in

May as Mayham for two years during the COVID restrictions. The club is reassessing and is planning to again run a Wyong Field Day in 2024. An announcement will be made later this year but the Central Coast Amateur Radio Club is suggesting that people keep Sunday the 5th of May 2024 free.

The long running Central Coast Field Day has been the largest Amateur Radio Field Day in the

Southern hemisphere. After many years at the Gosford Showground in Showground Road, the Field Day moved to the Wyong racecourse where facilities were significantly upgraded a few years ago. The flea market has been under cover and the Traders have enjoyed an air-conditioned environment. However, running such a large event is expensive and requires a lot of resources and planning so there are likely to changes for the 2024 event.

## Urunga Convention 30 & 31 April 2024



After being cancelled for the last few years due to COVID-19, the postponed 71st annual Urunga Convention had been scheduled for Easter 2023 on Saturday and Sunday the 8th and

9th of April 2023. However, the Urunga Convention was again postponed and an announcement regarding the possible resumption of the convention over Easter 2024 on Saturday and Sunday the 30th and 31st of March 2024 has not yet been made.

#### **Recent Events**

#### Coastal Walk Against Domestic and Family Violence 28 November 2021

The Liberty Coastal Walk Against Domestic and Family Violence, previously known as the White Ribbon Walk, took place on Sunday the 3rd of December 2024.

In past years ORARC members had provided safety communications for the walk from the Tacking Point Lighthouse Beach Surf Club to Westport Park in Port Macquarie. However, the event was run informally during COVID and last year ORARC was unable to provide safety and co-ordination communications for the event as the Club had already committed to provide the safety communications for the Beechwood Billycart Classic which ran on the same morning as the Coastal Walk.

This year the revised safety plan for the Coastal Walk without Amateur Radio communications was approved so ORARC radio operators were not required.

ORARC is a strong supporter of this most important cause and has aways encouraged as many people as possible to take part in the Coastal Walk.

## 2023 Christmas Party



The extremely enjoyable 2023 Christmas Party was held at the Long Point Vineyard and Art Gallery on Saturday the 2nd of December.

The weather on the day ended up fine for the duration of the party despite some of those travelling to the Christmas Party encountering rain on the way to Long Point earlier in the morning.

Thank you to everyone who attended the party and contributed to making the day a great success. The sausage sizzle lunch was expertly barbequed and served by Larry Lindsay VK2CLL and Rob Frost VK2CRF.



Larry VK2CLL with Rob VK2CRF

The delicious trifle dessert made by Sue Meade and the Pavlova were a very popular treat to end a very enjoyable lunch. There was even whipped cream to go with the dessert.



What was left of Sue's trifle minutes after it was put on the table!!



After advertising that it would be served, Henry VK2ZHE made the Pavlova this year as Lesley who normally makes the Pavlova was travelling overseas with Arthur VK2ATM. Photograph above.

The substitute Pavlova must have been palatable as it was completely eaten but everyone is looking forward to Lesley's Pavlova in 2024. Thank you to everyone who brought along the many tasty nibbles to share.



Special thanks to Jamie Campell VK2YCJ, pictured left, for bringing coleslaw and the most delicious grapes and super large strawberries for us to enjoy. No one went hungry. The tea and coffee, soft drinks and chilled water ensured that no one remained thirsty.

The cellar door was well patronised with many attendees taking the opportunity to stock up on Christmas cheer.



Bruce Ekert VK2EM and Richard Osborne VK2AUS/VK2OKR set up their portable HF station, pictured left, on a very convenient covered picnic table which had an ideally placed tree with overhanging branches that provided a perfect

support for antennas.





The station created a lot of interest and Bruce and Richard demonstrated several alternative antenna types. Everyone was impressed at how well the station worked and how quickly it was able to be set up and dismantled. The enthusiasm for portable operation was infectious and those attending picked up a lot of useful tips on how to make the most from the opportunity to get on air when out and about.

Those attending included Dennis Meade VK2DAM and Sue, John Hansen VK2AYQ, Bruce Ekert VK2EM, Bob Ecclestone VK2ZRE and Diana, Richard Osborne VK2AUS/OKR, Larry Lindsay VK2CLL, Ray Mullins VK2JU and Lynne, Mark McGuire VK2FMGM, Paul Colledge VK2ICQ, Paula Colledge VK2PDC, Rob Frost VK2CRF, Jamie Campbell VK2YCJ, Richard Hall VK2BXO and Beatrice, Peter Kucera VK2MPK, Ian Lindqurst VK2GL, Ziggy VK2TN and Barbara and Henry Lundell VK2ZHE and David Lenord VK2SIG.

Many apologies were received from members who were unable to attend. Hopefully, those members who will be able to join attend the 2024 Christmas party.

The venue has already been booked again for the 2024 Christmas Party on Saturday the 7th of December 2024. Mark your calendars now! The Christmas Party is indeed the social family highlight of the year and should not be missed. The covered timber deck picnic area at the Long Point Vineyard and Art Gallery is a perfect party venue. Please see the last pages of Oxtales for an extensive photographic gallery of the day.

#### Middle Brother Mountain VK2RPM Repeater Site

The Middle Brother Mountain VK2RPM 146.7 MHz 2 metre voice and VK2RPM 438.525 MHz Radnet DMR digital voice repeaters and the VK2RPM-1 145.175 MHz APRS digipeater have been working well.

## **Telegraph Point VK2RCN Repeater Site**

The VK2RCN 53.800 MHz FM 6 metre voice, VK2RCN 147.000 MHz 2 metre analogue FM voice and 438.425 MHz UHF Radnet DMR digital voice repeater and the VK2RCN-5 145.175 MHz APRS iGate digipeater are all working well.

There had earlier been an issue on the VK2RCN DMR repeater with some radios such as the Retivis RT-3S not being able to access Time Slot 2 Talk Groups such as TG505.

In early December 2023 ARNSW Radnet Co-Ordinator Matthew Perkins VK2FLY was holidaying in Forster with his family. He very kindly came up to the Telegraph Point VK2RCN repeater site on the afternoon of Thursday the 14th of December 2023 to investigate the Time Slot issue. He was joined by six ORARC members who also travelled to the site after the December Coffee Morning.

The photograph shows Matt VK2FLY in the VK2RCN repeater building accompanied by Rod Bailey VK2AJ, Ian Lindquist VK2GL, Arthur Monck VK2ATM, Lyle Smith VK2SMI and Rob Frost VK2CRF. Henry Lundell VK2ZHE took the photo.



Matt VK2FLY carried out a number of tests and reloaded the VK2RCN repeater Code Plug and rebooted the repeater.



The VK2RCN DMR repeater has been working correctly since the site visit. Interestingly, some other DMR repeaters subsequently

reported a problem similar to that which Matt had corrected at VK2RCN so the

opportunity for Matt to carry out the various tests on the VK2RCN repeater helped him to fast track the restoration of the other repeaters. Thank you, Matt.

At the 14th of December 2023 site visit Rob Frost VK2CRF brought his whipper snipper with him and did a great job in cutting down the thistles and other weeds which had sprung up around the site after the December rain.

After the 11th of January 2024 Coffee Morning five members continued on to the Telegraph Point VK2RCN site for a working bee. They were Larry Lindsay VK2CLL, Rob Frost VK2CRF, Dennis Meade VK2DAM, Stuart Melville VK2KSM and Henry Lundell VK2ZHE. Continued on next page

Larry VK2CLL came equipped with his motorised sprayer and treated the surprisingly extensive weed growth around the site. Rob VK2CRF had his whipper snipper with him. The site is looking much tidier and the work has reduced the fire hazard.

The working bee cleaned the rainwater leaf strainer and washed the air intake filters. As well the performance of each of the Victron Solar controller battery systems were checked. The controllers store the performance parameters for each of the previous 30 days. All batteries are being fully charged early in each day.

#### VK2WI Sunday Morning and Evening Broadcasts



The ARNSW Sunday morning and evening broadcasts can usually be received at good strength from Dural in Sydney on the VK2WI HF frequencies of 1845 kHz AM, 3595 kHz LSB, 7146 kHz AM, 10.125 MHz USB and 14.170 MHz USB, and on the VKE580 morning transmission on 5425 The morning broadcasts kHz USB. recommenced at 10am Daylight Saving time on Sunday the 14th of January 2024 after the Christmas/New Year break. The Sunday evening broadcasts at 7:30 pm Daylight Saving Time will recommence as soon as sufficient volunteers are available to run both broadcasts. Callbacks are done in the SSB mode on all the VK2WI frequencies at the conclusion of the broadcasts.

ARNSW have been making an impassioned plea for more volunteers to join the broadcast roster. This has resulted in some additional volunteers but more are still needed. Volunteers who live too far from Dural to attend the site in person can still assist with some of the broadcast preparation tasks. If you can help, please email news@arnsw.org.au

The Sunday morning broadcasts are live streamed on the internet on the ARNSW web site at https://arnsw.org.au/audio If you miss the live streaming, mp4 audio files of past broadcasts are available on the same page.

#### **ARNSW Antenna Building Presentations**

ARNSW Events Co-Ordinator, Al Hirschel VK2OK, has advised that ARNSW will be running two Antenna Building presentations in the ARNSW Centenary Building at 63 Quarry Road, Dural in February and April 2024. Full details are in the VK2WI Sunday Broadcasts and will be posted to the ARNSW web site https://arnsw.org.au/

If you are in Sydney on the Sunday 25 of February 2024 and/or the Sunday 28 of April 2024 it would be a great opportunity to visit the ARNSW headquarters, the home of VK2WI and attend the sessions. Please email <u>events@arnsw.org.au</u> to reserve your place.

#### Education and Amateur Licence Assessments

The club's long serving Education Officer Larry Lindsay VK2CLL together with Steve Wynn VK2ZSW and Bob Ecclestone VK2ZRE all have their AMC assessor accreditations. It is understood that these accreditations will be transferred to the ACMA now that the ACMA is about to take back the administration of Amateur Licensing.

The last Foundation Licence training and assessment weekend under the AMC arrangements was held on the weekend of the 25th and 26th of November 2023. There were four candidates and all four were successful.

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Congratulations all round. Read more in the section "New Members and New Callsigns" at the end of this report.

A Foundation Licence training and assessment weekend is planned for early in the new year once the arrangements with ACMA are in place. Assessments for the Standard and Advanced Licence will also be available. Larry Lindsay VK2CLL will contact those candidates who have already expressed interest.

If you know anyone who would like to obtain their Foundation Licence or would like to upgrade their existing licence, please contact Larry Lindsay VK2CLL.

## **ORARC 2024 Calendar**



The club's 2024 calendar is as popular as ever despite the calendar no longer having photos of our current members. The calendar was launched at the 2023 Christmas Party on Saturday the 2nd of December 2023.

A big thank you to John Hansen VK2AYQ for producing the calendar and then very generously paying the \$140.80 cost of printing 100 copies as a donation to ORARC. Thank you, John.

In past years Jaycar have donated \$100 sponsorship towards the cost of printing the calendar. However, under their new sponsorship rules, Jaycar now only provide one sponsorship per Club each calendar year.

ORARC is applying to Jaycar for sponsorship of prizes for the 2024 Field Day so they will continue as a Field Day sponsor. This had left ORARC to pay for the cost of printing the 2024 calendars so it was very generous indeed of John VK2AYQ to donate the total cost of printing the calendar. At the time of printing the Club had already sold approximately 65 calendars at \$2 each so John's donation of the printing cost has been turned into \$130 being banked in Club funds so far.

Thank you to Steve Pettet VK2ZVG for taking copies to safe hand deliver to Gary Ryan VK2ZKT at Bellingen. Thank you to Bruce Ekert VK2EM for taking copies to distribute to the ORARC members in the Great Lakes, and to Larry Lindsay VK2CLL who took calendars to distribute to the Wauchope members. Thank you also to Jamie Campbell VK2YCJ who is distributing calendars to the ORARC members in Newcastle and the Hunter Valley. Thank you to Stuart Walker VK2BMX for distributing calendars to the ORARC members in Sydney. Peter Pratt VK2PX was able to pick up his copy in person while visiting Port Macquarie. Des Thompson VK9FLHI has received his calendar on Lord Howe Island. A few members are yet to pick up their calendars when they next attend an ORARC meeting or activity. There are a lot of logistics in distributing the calendars each year!

Brooklyn's Burger Bar at Thrumster were given a copy of the 2024 calendar at the 14 December 2023 Coffee Morning. This is a good investment as the 2024 calendar has the monthly Coffee Mornings marked on it. When we arrived for the 11 January 2024 Coffee Morning a table had been reserved for the Club members. It pays to advertise!

The dates of the club nets club meetings and Friday Night Get togethers and the Coffee Mornings, and the ORARC Field Day dates are all marked on the 2023 Calendar. The calendar also contains the details of the frequencies for the club's repeaters. This makes the 2024 calendar a great reference for your shack or den to ensure that you will never miss out on Club activities.

Copies of the 2024 calendar are available and may be purchased at the Monthly General Meetings, Coffee Mornings and Friday Night Get togethers. The price, still a mere \$2 each.



# Mid North Coast WICEN

The Mid North Coast WICEN group meets in the Port Macquarie SES Building at the conclusion of

each month's ORARC Monthly General Meeting. WICEN members and visitors are made very welcome.

At the 6th of January 2024 meeting the members present were very pleased to meet up with and have discussions with long standing active WICEN member Eric Van De Weyer VK2VE who is also the Secretary of ARNSW. While stalwart MNC WICEN members Larry Thompson VK2LJT and Bob Ecclestone VK2ZRE were unable to be present for medical and travel reasons, newly licenced ORARC member Ben Waters VK2BJW attended the meeting as a visitor. We hope Ben finds WICEN interesting.

Mid North Coast WICEN hold an 80 metre net each Thursday evening at 7 pm local time on 3600 kHz LSB. Everyone is welcome to join the net. It is a short net and concludes by 7:30 pm in time for participants to join the ORARC Thurdsay night net at 7:30 pm on the 146.7 MHz VK2RPM 2 metre repeater which is also accessible via Echolink.

If you are interested in joining Mid North Coast WICEN then contact Rob Frost VK2CRF, Larry Thompson VK2LJT or Bob Ecclestone VK2ZRE.

The WICEN NSW web site is at https:// nsw.wicen.org.au/ WICEN NSW hold a 40 metre HF net on the 3rd Sunday of each month at 1830 NSW Local Time on 7110 kHz LSB +/- QRM. Net Control is VK2WIZ. There is also a DMARC DMR net on Talk Group 3810 at 1830 hours NSW local time on the 2nd Sunday of each month. Net Control is VK2WID. The DMR nets can be accessed via the VK2RCN or VK2RPM or other DMR repeaters, or via a Hot Spot.

# New Members and New Callsigns

At the 6th of January 2024 Monthly General Meeting a record 5 new members were admitted as members of the Oxley Region Amateur Radio Club Inc. All four candidates at the last Foundation Licence training and assessment weekend on Saturday and Sunday the 25th and 26th of November 2023 decided to join ORARC. As they didn't yet have callsigns they all applied for Associate Membership. All four candidates were automatically successful and became Ordinary Members once their callsigns were issued. Congratulations! As well, Marika Privett, the wife of one of the candidates, Mick Privett, took advantage of Family Membership and is an Associate Family Member with Mick. Thank you to Marika for joining.

It is with great pleasure that we welcome the five new members:

Mick Privett VK2BMP of Lake Cathie -Ordinary Family Member

Marika Privett of Lake Cathie - Associate Family Member

Ben Waters VK2BJW of Port Macquarie -Ordinary Member

David Lenord VK2SIG of Port Macquarie – Ordinary Member

Amanda Thomas VK2AYD of Wauchope – Ordinary Member

Amanda Thomas is the daughter of our late esteemed Life Member David Pilley VK2AYD. After having lived her entire life exposed to Amateur Radio through her very keen father, Amanda decided that she would study for the Amateur Licence so that she could hold the VK2AYD callsign and keep it in her family. Needless to say, Amanda passed the assessment with flying colours!

Congratulations and well done, Amanda. Of all the legacies that David left after his passing, having his daughter take over his callsign is by far the most valuable.

Congratulations to Mick VK2BMP, Ben VK2BJW and David VK2SIG on obtaining their licences. Welcome to Amateur Radio.

#### Milestones

Those who participate in the ORARC Sunday morning 2 metre nets run by Mark McGuire VK2FMGM will be aware that Mark did manage to get his long-awaited Christmas present, even though he had to buy it himself. Mark had been without a motorcycle since the demise of his previous cycle to a stripped spark plug thread that could not be economically repaired. This sent Mark into a serious savings campaign so that he could purchase a brand-new motorcycle. He decided that he was done with second-hand machines.

Mark achieved his objective and took delivery of his new motorcycle just in time for Christmas. Well done, Mark. We were hoping to have photo for this issue of Oxtales but readers will have to wait for the March issue.

Just a reminder that members who turn 85 years are rewarded with Life Membership. Eligible members must be nominated by the end of June so that they can be included in the agenda for the ORARC Annual General Meeting. Please let the Committee know of any members who will become eligible in 2024.

Best wishes for a safe and happy 2024.

Henry Lundell VK2ZHE President.

And now for something completely different! A light hearted view of Amateur Radio from the Internet.



#### Third Antenna Element Type Improves Long Term Long Yagi Performance!

Bob Ecclestone VK2ZRE - January 2024

Bob has sent in the following amusing account of how he was able to deal with a common problem of birds damaging Yagi antennas.

Long term Long Yagi antenna performance trials are being undertaken in Jerrabomberra NSW, close to the ACT-NSW Eastern border.

Signals are being "sniffed" from behind several small mountains deliberately erected by ACT Government officials several millennia ago in an attempt to thwart the reception of Free To Air (FTA) television (TV) signals originating in the ACT from reaching consumers in the neighbouring state of NSW. Although the transmission site is only 12.5KMs away, the erection of these mountains directly in the path of these UHF signals dictates the use of high gain antennae and high gain Mast Head Amplifiers.

When questioned as to why the ACT Government went to such expense to erect these mountains, an ACT Government official was extremely proud of the attempt to restrict reception of FTA TV signals in NSW, saying "We consider the illegal consumption of ACT FTA TV by rogue elements of the NSW population nothing short of theft of valuable ACT energy and information resources."

It is also rumoured the ACT Government have engaged the assistance of several gangs of wild birds in an attempt to dismantle and/ or alter the critical alignment of the Long Yagi antennae in use in NSW by determined NSW residents.

"Gangs of galahs, cockatoos and ravens regularly invade our airspace and descend on our antennae, bending and breaking off bits of the antenna. I'm no engineer, but the concerted dismembering of the antenna can't be good for it. And they jump up and down on either end of them (the antennae) resulting in them pointing up in the air or into my neighbours window." said a very frustrated Jerrabomberra resident.

"Even the Indian Mynah(s) and their sworn enemies, the Noisy Mynah(s), can't repel these bigger invaders, despite their most valiant efforts." she added.

For years, FTA TV transmissions have been vertically polarised in the ACT. This has meant it was difficult for the birds to land on, and destroy, the receiving antenna. But steadily, over a period of several years, the ACT Government sought the assistance of their Federal counterparts.

"What if we change the polarisation from vertical to horizontal and increase the transmitter frequency. That will make it much easier for our bird gangs to land on, and damage, the antennae and disrupt the continual theft of our precious FTA TV resources by those thieving NSW malcontents."

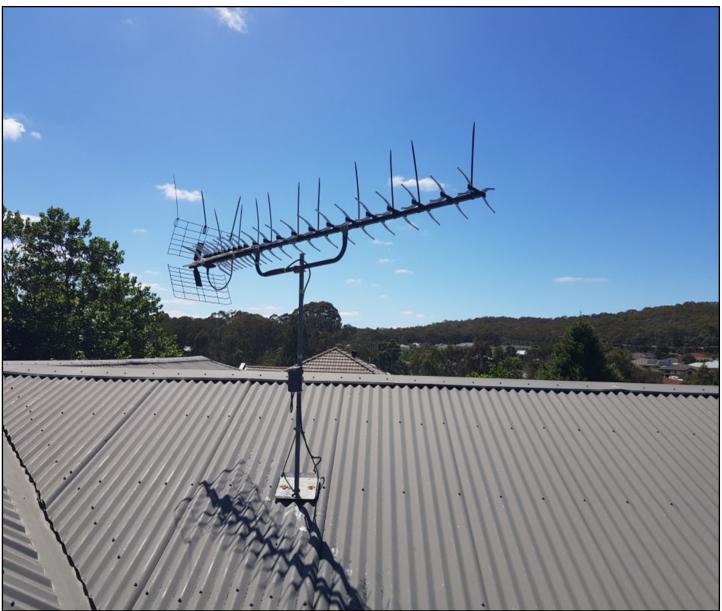
In an attempt to dissuade these bird gangs, a recent ACT refugee, now a Jerrabomberra resident, enlisted my help to try to find a solution to this ongoing problem.

Upon inspection of the antenna, it was found to be a 24 element broadband UHF Long Yagi about 2 metres long. Three Director elements had been violently torn from the boom, also damaging the plastic moulded "seat" on the boom the Director clips into. Due to the damage, once refitted, the element could be easily dislodged again by a bird or even a strong wind gust.

It was decided to try a tactic used regularly by ACT cyclists to deter "bully" birds attacking them.

I added a third row of passive elements to the antenna.

Continued from previous page



I have called these "Deflectors" to differentiate them from Directors and Reflectors!

Please refer to the attached photograph above.

A row of vertically polarised, non-metallic elements were attached to the boom. Drawing from the cyclists ingenuity, these were fashioned from robust 6mm x 350mm black nylon cable ties. Several were strategically placed to hold the damaged Directors in place.

FTA TV reception has been successfully restored at the test site residence. Long term monitoring of the antenna condition and alignment will determine whether this solution is indeed effective. The Modified UHF TV Long Yagi at Jerrabomberra Antenna Test Site.

The added vertical passive, non-metallic Deflectors are designed to deter gangs of birds landing on the boom and damaging the elements or upsetting the critical antenna alignment.

Editors note: Thanks Bob VK2ZRE for an entertaining article to try and solve on what is often a common problem. I am sure that we look forward to receiving regular yearly updates on how the cable ties cope with the weather conditions and the sunshine UV.

Photograph above shows:



#### The WIA Technical Advisory Committee – Band Plan Updates Proposed for 6m, 70cm and 9cm bands

#### Date : 21 / 12 / 2023 Author : Grant Willis VK5GR

The WIA TAC has opened a new band planning consultation paper for comment.

Changes are being considered to the following bands:

**6m** - with the AOCP(S) Standard class licensees gaining access to the entire band, a proposal has been made to remove the weak signal segment between 52.0 and 52.5 MHz and replace it with a new wideband segment, in support of new experiments including Reduced Bandwidth ATV using digital modulation techniques.

**70cm** - it is proposed to remove the grand fathered repeater segments and add an additional segment between 439.625-439.7875 which is allowed to use -7 MHz offset. In addition, the repeaters between 439.800-440.000 are also proposed to be granted access to -7MHz receiver offsets should the repeater operator wish to use them.

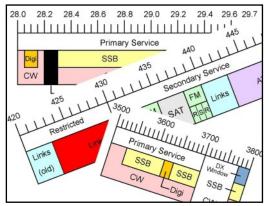
**9cm** - with the withdrawal of much of the amateur allocation between 3400-3600 MHz, as well as reports of interference and overload challenges with the weak signal segment currently being placed directly adjacent the 3400 -3420 MHz NBN LTE transmitters, a review of the band is proposed. Options are discussed and a new channel plan for wideband is also proposed.

We invite all radio amateurs to download and consider the proposals. Feedback is most welcome and can be forwarded to us on email at tac@wia.org.au.

We are leaving the submission period open until January 31st 2024. Please take the time to review the proposals and contribute your feedback.

Regards, Grant Willis VK5GR WIA TAC Chairman

**About Band Plans** 



What is a band plan?

A band plan is an agreement that divides the RF spectrum into different bands or segments for different uses.

Internationally, the International Telecommunications Union (ITU) is responsible for allocating bands for each service such as fixed, mobile, broadcasting or amateur. Most countries follow the ITU frequency allocations very closely, but each country also has the right to vary its frequency allocations to suit local conditions.

In Australia, spectrum management is the responsibility of the Australian Communications and Media Authority (ACMA). It determines frequency allocations for all transmitting stations in Australia and its territories.

Band planning within the amateur bands follows the same *Continued on next page* 

pattern as international and national band planning. To make the best use of the available spectrum, our bands are divided into segments that are used for different purposes.

## Why are band plans important?

Amateurs use a wide variety of different modes. Within one amateur band, activity can include CW, voice, satellite activity, digital modes and ATV. The best way of avoiding clashes is to set aside different band segments for each of these activities, so that we can all follow our own particular interests without causing interference to each other.

Apart from avoiding interference, band plans make it easier for us to find other amateurs with the same interests. If we want to make a CW or digital contact, or swap an SSTV picture, or just have a chat, we just need to check the band plan to see which frequencies are used for these different activities.

## **Band planning guidelines**

Band plans need to be based on a number of factors:

They should take local conditions into account, but they should follow national and international practice where possible.

They should encourage spectrum efficiency, but they also need to provide each operating mode with a fair share of spectrum space.

They should take the popularity of each mode into account, while still providing enough spectrum space for less popular activities. For example, ATV requires far more bandwidth per operator than other modes. And activities such as EME are important regardless of the number of stations involved. Band plans need to be flexible enough to adapt to changing needs, but they tend to lose support if they become too complex, or if they are changed too often. The aim must be to think ahead and to make sure that future options are not closed off.

Some operating modes require exclusive band segments, but others can coexist with similar modes in the same part of the band. So our bands plans will include a mixture of exclusive and shared segments.

## **Further information**

Further details of the current band plans and related material are on the Band Plan Data page on the WIA website see the URL address below:

www.wia.org.au/members/bandplans/data

## WIA National Office closure dates



Date : 01 / 01 / 2024 Author : Lee Moyle - VK3GK

WIA National Office closure dates for Christmas and New Year. Proposed National Office Christmas closure from 4PM Friday 22/12/2023 and reopening 9AM Monday 15/01/2024.

The WIA board of Directors wish all WIA members and associates a very Merry Christmas and a prosperous New Year 2024.



2024 ARRL National Convention to be at Hamvention



ARRL The National Association for Amateur Radio® and Hamvention® have announced that Hamvention will host the 2024 ARRL National Convention, May 17, 18, and 19 at the Greene County Fairgrounds in Xenia, Ohio. Hamvention is the world's largest annual gathering of radio amateurs and has been sponsored by the Dayton Amateur Radio Association (DARA) since 1952.

"We are pleased to unveil our 2024 logo and theme," announced 2024 Hamvention General Chair Jim Storms, AB8YK, and the Hamvention team. "The theme is 'Expanding our Community'. This is in support of the growth of amateur radio worldwide."

Hamvention Awards Chair Michael Kalter, W8CI, also shared a reminder that the nomination period is open to submit nominations for 2024 Hamvention Awards, including the Amateur of the Year, Technical Achievement, Special Achievement, and Club of the Year awards. More information about the awards can found on the Hamvention website, and nominations will close on February 15, 2024.

ARRL is building a program for its National Convention that will include presentations and forums, more than a dozen exhibits, and activities for young hams. Once finalized, the National Convention program will be published at www.arrl.org/expo.

Hamvention urged "everyone to purchase their tickets and make their room reservations early to avoid the rush." Visit the Hamvention website for more information and to order tickets at www.hamvention.org.

# Student-Led ARISS Contact a Success



A student-led contact with astronauts through the Amateur Radio on the International Space Station (ARISS) program was a great success that earned significant media attention. On Monday, December 11, students at Harbor Creek High School in Harborcreek, Pennsylvania, used amateur radio to talk with Astronaut Andreas Mogensen, KG5GCZ.

The students are part of the Advanced Technologies Group, KC3SGV, an afterschool club at Harbor Creek. Fifteen of the students are licensed radio amateurs. As ARRL News reported last week, their faculty advisor, Assistant Principal Drew Mortensen, AC3DS, is a graduate of the ARRL Teachers Institute on Wireless Technology. He utilized what he learned in the program and brought it back to the school. The ARISS contact is just one of the many successes the program has had.

ARRL Education and Learning Manager Steve Goodgame, K5ATA, was on hand for the contact, and he was impressed by the skills demonstrated by the students.

Goodgame recalled, "From antenna assembly and installation to the actual control operator function of the radio during the contact itself, students were at the helm. Every student who asked a question of Commander Mogensen was a licensed amateur radio operator. When I asked what they had planned next, the response was, 'Well, the logical step would be to build and get a CubeSat launched.' This is exactly the type of program we hope to help create as an outcome of the Teachers Institute," said Goodgame.

Local, regional, and national media took note of the students' success. Local television newscasts (see Amateur Radio in the News below) featured the event, and NBC Journalist Harry Smith and a crew from NBC's TODAY were at the event to tell the story about the young hams.

This type of exposure for amateur radio is key to growing the hobby, according to ARRL Public Relations and Outreach Manager Sierra Harrop, W5DX. "The passion of these teenage operators led to this success story. Who doesn't love the story of young minds doing extraordinary things in STEM through amateur radio?" she exclaimed. ARRL Director of Development Kevin Beal, K8EAL, mentioned that the media coverage demonstrates the impact that the donors who have funded the Teachers Institute have on the future of amateur radio. Beal said, "The reach goes far beyond the one-week training institute and ripples out farther than we can see."

The ARRL Teachers Institute on Wireless Technology is funded by the ARRL Education and Technology Fund. If you are interested in supporting STEM education through the Teachers Institute on Wireless Technology, visit

www.arrl.org/GiveToSTEM.

#### The K7RA Solar Update



#### 05/01/2024

Only four new sunspot groups emerged over the past week, one on December 28, another on December 31, and two

more on January 2 and 3.

Solar indices sank. The average daily sunspot number declined from 114.4 to 63.4, and average daily solar flux from 172.6 to 141.9. Average daily planetary A index rose from 8.4 to 6.7 and middle latitude numbers from 4 to 5.1.

Predicted solar flux over the next few

weeks 130 January is on 5-7. 135 on January 8-10, 140 on January 11, 12-14, 155 January then on 160, 165, 160 and 155 on January 15-18, January 19-21, then 150 on 145 and 140 on January 22-23, and 135 on 24-26. 130 January and 145 on January 27-28, 140 on January 29-30, 145 on January 31 through February 1, 150 on February 2-4, 155 on February 5-6. 160 on February 7, and 155 on February 8-10.

ARRL The National Association for Amateur Radio® Straight Key Night (SKN) is held on January 1, 2024, from 0000 UTC through 2359 UTC.

## ARRL Straight Key Night (SKN) 2024



Many hams look forward to SKN as one of the highlights of their operating year.

Operators participate using Morse code (CW). All you need is your favorite straight key or bug. Many participants dust off vintage radios and keys and put them back into service each year just for this event.

SKN is not a contest, so there's no need for quick exchanges. However, all hand keys, regardless of age, are welcome. The number of contacts you make is not important. The reward is meeting new friends as you get together on the air.

Send a list of stations contacted, SKN stories and photos, and your votes for Best Fist and Most Interesting QSO to straightkey@arrl.org by January 31, 2024

Continued from previous page



Amateur Radio Newsline Report 2410 for Friday January 5th, 2024

#### MOBILE BASE STATIONS TO EX-PAND FREQUENCY USE WORLD-WIDE



Mobile band communication gained new parts of the spectrum at the World Ra-

diocommunication Conference late last year. We have those details from John Williams VK4JJW.

One of the agreements to emerge from the recent World Radiocommunication Conference in Dubai is the expanded spectrum becoming available for use by certain mobile base stations internationally. The designated parts of the spectrum are at 700 to 900 MHz, 1.7 GHz and 2.5 GHz. This is intended to give greater flexibility to operators around the world making use of HAPS mobile broadband communication, also known as High Altitude Platform Station communication. According to the International Telecommunication Union, any fixed-point radio station situated 20 to 50 kilometres above the Earth is a high-altitude platform station.

The company that has led the spectrumexpansion proposal for the past few years is the SoftBank Corporation. The Japanese company has been studying international standardization for such use since the issue was put on the WRC 2023 agenda four years ago during WRC 2019. HAPS technology has also been recognised as useful for communications during disaster recovery, especially when storms or other events have left terrestrial networks damaged.

This is John Williams VK4JJW.

# (ITU, SUASNEWS)

## GUJARAT CONFERENCE WEL-COMES INDIA'S SATELLITE



# ENTHUSIASTS

The conference known as MAPCON ended last month but satellite enthusiasts in India are hoping that the lessons of the three-day event in Gujarat will endure. Jason Daniels VK2LAW brings us that story.

Workshops, student competitions, tutorials and exhibits were the mainstays of MAP-CON 2023 - an acronym for the Microwaves, Antennas and Propagation Conference in mid-December. This year, the international forum for sharing technology and research among professionals was able to share the spotlight with amateur radio, with a focus on the ham satellite community.

An exhibit designed by AMSAT-INDIA, helped its regional coordinator, Rajesh Vagadia, VU2EXP, demonstrate the vital role that ham radio and satellites play in education. The exhibit was viewed by hundreds of people from industry, government, defence and research. Writing in the QRZ.com forums, Rajesh said that the exhibit tried to cover all possible applications, from HF, UHF and VHF radios to logbooks, QSL cards, satellite models and test instruments.

He wrote: "We tried our best to cultivate the seeds of amateur radio, hoping to get some fruitful results." He was assisted by his niece, Shyama *Continued on next page* 

Vagadia, VU3WHG,

a student member of the IEEE's Gujarat Chapter.

He added: [quote] "It was a great time for us to be in this top conference for professionals yet representing amateurs!"



STUDENT PROJECT PROVIDES NEW SATEL-LITE FOR INDIA

STEPHE. India's HAM-SAT, the microsatellite de-

commissioned in 2016, has been replaced following the New Year's Eve launch of a small satellite created by students. The Somaiya (SO MAYA) Belief sat-Ø takes its name from the K.J. Somaiya Institute of Technology. The project's faculty coordinator, Umesh (OO-MESH) Shinde (SHIN DAY), VU3CDI, told local media that he expected it to become a crucial player in the realm of global amateur radio."

The satellite has a UHF to VHF-FM repeater and VHF digipeater sending APRS standard telemetry every 30 seconds.

(HINDUSTAN TIMES)

#### GETTING ON THE AIR TO CELE-BRATE VINTAGE EQUIPMENT FROM KW ELECTRONICS

STEPHEN If you love vintage Heathkit, Swan and Collins equipment, you have a lot in common with hams in the UK who have great affection for products made by KW Electronics. This month, many of those hams have set aside time on the air for a big celebration, as we learn from Jeremy Boot G4NJH. There's a lot of history behind the two letters "K" and "W" if you're talking about radios, antennas and other equipment built for the amateur radio market in the years following World War II. The name of KW Electronics Ltd. in Kent, England, was derived from the callsign suffix shared by its founders Rowley Shears G8KW and Ken Ellis G5KW. Although the company was eventually purchased by the Decca Group, amateur radio loyalty remains steadfast, especially in the UK.

Hams are getting on the air with the vintage equipment to mark KW Weekend on the 6th and 7th of January. They will be using special callsigns ending in those two letters. One amateur, Kev, GWØPUH, has taken his commitment to the older radios a bit further and is already operating in another celebration all month. He is on the air as GB9KW until the 28th of January.

Off the air, you can still connect with KW enthusiasts on the internet. A groups.io site allows devoted owners - or simply admirers to post their questions and thoughts about the equipment and related issues.



# **Blast from the past**

Blast from the Past is the section of Oxtales where we reflect on what the club and its members were doing in years gone by. Members are also encouraged to send in items relating to club members or club activities in previous years.

This month's blast is taken from the 2014 January issues of Oxtales. The club had 85 members. Henry VK2ZHE was President, Larry VK2CLL Vice President, Secretary David VK2FRAB and Keith VKFKJA (SK) Treasurer.

The main activities were the club's first Bunnings Sausage Sizzle Fund Raising BBQ, 2013 Christmas Party at Settlement Point, repeater maintenance at VK2RPM Middle Brother and VK2RCN at the old Telegraph Point site and the previous November's Billy Cart Derby at Beechwood and a Foundation Class Assessment with four successful applicants.

Editors note: The original reports have call signs that were in use at the time. Some of the members have since obtained call signs, updated their qualifications, obtained new calls and unfortunately become Silent Keys.

David VK2FRAB provided an amusing and succinct report for Oxtales, and is reprinted below.

'. . . Sunday 8 December 2013, a beautiful sunny morning at seven o'clock, as the Set-up Team of Arthur, John, Richard and David arrives at Bunnings for ORARC's first attempt at the Sausage Sizzle. From the bowels of the Tradie Section came the monster BBQ unit, the Gazebo cart and the wheelie sign.

A Bunning's employee realizes this is the Club's first time and organises the erection of the Gazebo and the installation of the BBQ unit. Rooster Henry arrives on the scene and directs Arthur to do his artistic thing on the blackboards, the placing of eskychests, table, supplies of sausages, drinks and bread and at eight o'clock, as he casually lines up the condiments on the counter, declares; "Let's fire up the barbie and put a smile on the Treasurer's face." Keith, the new Rooster for the Breakfast Shift, arrives on the scene and explains the audit trail system involving ticket books for sausage sandwiches and drinks and casts a quick calculating eye over the cash float.

Richard the Cook has three-quarters of the hotplate sizzling with sausages and the other quarter covered in steaming onion, his BBQ tools laid out over the stainless steel bench in a way that would make any surgeon envious.

Mark the Sandwich Maker wraps two pieces of bread in a napkin with one hand while cutting raw sausages free from their bundles with the other.

Charles rehearses his role as Server, and practises putting a sandwich on the small bread board and moving it from the cook to the counter while mustering congenial tones to entice even the most hard-nosed skinflint to buy two sausage sandwiches and David the Cashier positions his cash tin and receipt books and programs his brain with the scenario that if a customer buys a sausage sandwich and a can of Coke that's \$4 and if the customer gives \$10 that means \$6 change. The first customer fronts up and the Breakfast Shift feels a sense of pride at the first successful sale.



John VK2KHB, Henry VK2ZHE, Keith VK2FKJA and Tim VK2ZTM part of the Oxley BBQ team.

Morning Tea Shift starts with change over of Staff. Richard stays on board as Cook, Keith takes over as Sandwich Maker, Lyle puts on the charm as Server and Tim steps in as Cashier. Systems are explained and it's not long before the new staff have made the role their own. Sizzling sausages and the pallet of cow manure nearby fill the air with a pungent smell that for some reason inspires customers to cover their sausages in BBQ sauce and honey mustard.

Sales are happening as the Lunch Shift moves in. The new Cook Joanne, a ring in, catches on quickly to Richard's method, Keith moves to the new role as Server, Tim stays on as Cashier and David returns to the Gazebo as Sandwich Maker. The rush is on.

*Continued on next page* 

#### Foundation Class Assessments

Multi-orders are coming in. The hungry crowd is fed and the thirsty find relief in a cold can.



David VK2FRAB, Charles VK2KCE, Keith VK2FKJA and customer.

By the time the Afternoon Shift takes over, sales have tapered off. Joanne stays on as Cook, Larry counts on doing a good job as Cashier, Bob fits into the Server role like a glove and Dennis stacks up as the sandwich maker. Customers dribble in while staff engage in illustrious conversations that solve the world's economic, political and religious problems. As four o'clock nears everyone begins to pack up but Rooster Henry is back on the scene and declares, "Another fifteen minutes so we can capitalise on the last minute rush."

Rooster Henry turns into Slave Driver Henry as he whips the Clean-up Team into action. He wants to leave a good impression with Bunnings and calls on Bob, Dennis, John and Larry to do that extra bit. Never before has the BBQ unit been left so spotless, and never before has the concrete floor looked so clean. Meanwhile the Treasurer is counting the takings and almost cracks a smile when he notes down the four figure dollar sum on the Cash Control Sheet.

At six-thirty in the evening the President stood by his vehicle and looked over into the corner where ORARC members had spent the day working as a team with great rapport, charming the public while delivering tasty sausage sandwiches and cold drinks. He reflected on the effort involved on the day, even on the auxiliary support from Michael, Bill, Lewis and John. He felt proud'...



Larry, VK2CLL, Dennis, Joannne and Bob VK2FBOB prepare for clean up at days end.



Successful applicants Dennis, Bob, Chris and Jenny with Assessors, Larry and Ross in the background.

Call signs issued: Dennis VK2DAM, Bob VK2F-BOB, Chris VK2FCCK and Jenny VK2FJEN.

Advanced Licences Assessments



Assessor Ross VK2RR with Thomas VK2PWN upgraded to VK2ATR and assessor Larry VK2CLL



Assessor Ross VK2RR with Paul VK2PPP upgraded to VK2ICQ and assessor Larry VK2CLL

**Equipment from the Past** 



BC 312 and BC 342 Radio Receiver 1940 to 1960

The BC-312 is a 9 valve communications receiver, a superheterodyne design using single conversion. It was made in the USA, and designed at Fort Monmouth, in the mid 1930s. It was intended for ground use, either individually or with a transmitter. It can receive AM (amplitude modulation) or CW (continuous wave) or MCW (modulated continuous wave) signals, and used the LS3 loudspeaker weight 5 kg. The BC-312 receiver weighs 21 kg.

| The receiver covered 1.5 to 18 MHz, in 6 |    |      |   |      |      |  |
|--|----|------|---|------|------|--|
| ranges.                                  |    |      |   |      |      |  |
| Band                                     | A: | 1.5  | _ | 3.0  | MHz  |  |
| Band                                     | B: | 3.0  | _ | 5.0  | MHz, |  |
| Band                                     | C: | 5.0  | _ | 8.0  | MHz, |  |
| Band                                     | D: | 8.0  | _ | 11.0 | MHz  |  |
| Band                                     | E: | 11.0 | _ | 14.0 | MHz  |  |
| Band F: 14.0 – 18.0 MHz                  |    |      |   |      |      |  |

It had two RF amplifiers using (6K7) valves, a frequency changer using (6L7) with a separate oscillator using a (6C5), two IF amplifiers (Intermediate Frequency) using (6K7), a detector and audio preamplifier using a (6R7), an audio power amplifier using a (6L6) or 12A6. There was also a crystal filter and a BFO using a (6C5).

The internal power supply could be a 12 or 24 volt dynamotor or a 115 volt AC supply. The IF is at 470 kHz. The receiver is strongly made, with several castings and a

steel case, and so is very heavy. It was also very stable and easy to use with the vernier dial. The front panel is distinctive as it had a large connector pointing downwards, not outwards as is usual. This was for power input, audio output, or connection to a transmitter. The receiver could then be a transmitter remote control, as it has a key, a microphone jack, and a Send Receive switch.

#### MODELS

There are many models in the BC-312 family, 30 variations in all, denoted by a number with a letter suffix. They all look the same, but a close inspection reveals the differences. They can easily be divided into two groups, the HF versions consisting of 22 models, and the MF versions consisting of 8 models. The HF frequency coverage is 1.5 -18 MHz, and the MF frequency coverage is 150 - 1500 kHz.

The HF versions can be further divided into two categories, the DC powered models, all called the BC-312, and the AC powered models, all called the BC-342. Similarly the MF versions can be divided into the DC powered models, all called the BC-314, and the AC powered versions, all called the BC-344.

The power supply was modular and could be easily replaced, the DC dynamotor supplies were either 12V or 28V DC.

#### SCR OUTFITS AND USES

The receiver was often used by itself. If it was used with a transmitter, it was then called an SCR station. For example SCR-245 station was BC-312 and BC-223 transmitter for communication in jeeps and light tanks. BC-223 Transmitter shown below.



Note the plug in final coil units for each band on the right.



Continued on next page

SCR-177B station comprised of a BC -312 and a BC -191 transmitter pictured below for a portable station.



Power output was between 40 and 75 watts.

Note the plug in unit which had the coils for the output frequency.

Input power could be battery or dynamotor depending upon the situation in use.

An example of a high powered portable station is depicted below.



The SCR-197 mobile station consisted of the BC-325 radio transmitter with a frequency coverage of 1.5 to 18 MHz and an RF power output of 400 watts.

The complete set was housed in a <u>K-18</u> <u>truck</u> and <u>K-19</u> trailer combination. A 45 foot vertical antenna was used for sending and a 15 foot whip used for receiving. Power could be optionally supplied by power mains or portable generator units: one PTO driven GN-42-A generator for the transmitter and two small <u>PE-75</u> skid mounted units for the receivers.

A BC - 610 transmitter was also used for mobile truck operations and fixed location it offered up to 400 watts on CW and 300 watts for AM. This was also used extensively by the United Stated Military during WW11. The basic unit weighed in at about 180 kg. and is shown in the next column.





The BC—610 with tuning unit. Left.

The BC-312 receivers were built by several contractors in the U.S. for the US Signal Corps in World War II.

Radio Amateurs were able to purchase many of the BC sereies of military radios after WW11 especially in the USA at a fraction of the manufactured price. The main problem in using the higher powered transmitters was in making up power supplies that could supply the required 24 or 28 volts DC at a high amperage to run the dynamotors.

Acknowledgements: https://radionerds.com/ www.tuberadio.com/robinson/museum/BC-312/ https://www.radiomuseum.org/ en.wikipedia.org/wiki/BC-610

Please see the last page in the Photo Gallery (page 28 for more photographs).

New Amateur Radio Equipment



Yaesu FT-710

## **Radio Features**

The Yaesu FT-710 is a HF/50MHz band 100W Compact SDR (Software Defined Radio) Transceiver.

The SDR circuit configuration emphasizes Receiving Performance which is enabled by the same high-resolution A/D converter and FPGA used in YAESU high-end SDR transceivers introduced in the FTDX-101 and FTDX10 series.

The radio has Band-Pass-Filters dedicated for the amateur bands to eliminate out-of band unwanted signals and also features a 'Built-in' High-speed Automatic antenna tuner with 100 channel memory.

The FT – 701 AESS has an Acoustic Enhanced Speaker System) with the supplied SP-40 speaker to create High-fidelity audio output. Yaesu has released a 'Field Version' of the radio which is not supplied with the SP-40 speaker. The field version is a physically more compact version supplied with a carrying strap at a slightly lower price.

Current projected prices for both versions are below \$2,000 plus options.

The radio as a High Resolution 4.3-inch TFT Colour Touch Panel Display which incorpo- rates a real-time 3-Dimensional Spectrum Stream presentation and a VFO Mode Indict- or which shows the current operating mode (VFO-A, VFO-B, Memory Mode and Clari- fier/Split operation) at a glance.

The radio's "PRESET" Mode functions are most useful for FT8 operation.

An Equipped External Display terminal (DVI-D) is also available.

# **Supplied Accessories:**

External Speaker SP-40 Microphone SSM-75E DC Power Cable w/Fuse Spare Fuse Operating Manual

# **Specifications:**

# Receiver

Frequency Ranges: RX 30kHz - 75MHz. 1.8MHz - 29.699999MHz (Amateur bands) 50MHz - 53.999999MHz (Amateur bands) 70MHZ—70.49999MHz (UK Amateur Bands only).

#### Transmitter

TX 1.8MHz band - 50MHz band (Amateur) Modulation Type: A1A(CW), A3E(AM), J3E (LSB,USB), F3E(FM) Frequency Stability:  $\pm 0.5$ ppm (after 1 minute @ +32°F to +122°F / 0°C to +50°C) Supply Voltage: DC 13.8V  $\pm 15\%$ RF Power Output: 5W - 100W (5W - 25W : AM Carrier) Dimensions (W x H x D): 9.4" x 3.1" 9.7" (239 x 80 x 247mm) Weight (Approx.): 9.92 lbs (4.5kg)

The new FT-710 AESS pictured below with the SP-40 speaker.



Editor's note: It is interesting to compare the transceiver with the BC-312 stations on the previous pages. The huge development in technology that has taken place in the past 80 years (especially in the weight!)

# Photographic Gallery of the Oxley Radio Clubs 2024 Christmas Party.



Long Point Vineyard and Art Gallery







Left

Below

Ian VK2GL

Dennis VK2DAM

and below left Sue





Above Jamie VKYCJ and Richard Hall VK2BXO



Above John VK2AYQ, Larry VK2CLL and Bob VK2ZRE. Examine the 2024 Calendar.



Left new member David VK2SIG



Bruce VK2EM and Richard VK2AUS/VK2OKR set up a portable stations using a dipole.





Bruce and Richard also demonstrated an extended whip antenna that seemed to reach into the clouds and the

associated tuning coil.













Above shirts with messages! Bob VK2ZRE and Diane Larry VK2CLL Below

Paul VK2ICQ and VK2PDC Peter VK2MPK





Below Ray VK2JU and Dennis VK2DAM Lynne







Mark VK2FMGM receiving a recognition award from Henry VK2ZHE for being the net controller every Sunday for tha past year.



Left Ziggy VK2TN with Barbara

Below Beatrice and Mark VK2FMGM enjoy a chat around the table.





The undercover seating area is very much appreciated especially on very hot days.



#### **Photo Gallery Miscellaneous**

The first two photographs follow on from the Equipment for the past on page 24 of this edition of Oxtales. They show A BC-312 or BC-342 being operated as part of the SCR -188 radio set in the field.





The valve line up in an output stage of a BC–191 Transmitter



Inside a dynamotor case for the supply of high voltage for the valves used in an BC-312 receiver.

The below photograph shows our former Editor of Oxtales and long time member of the club Trevor VK2TT Celebrating his 97 Birthday.

Trevor relinquished his call sign so that his son-in-law Ian McDonald could have the call and thus keep it in the family.



Is this the floor plan of a radio amateur's dream home?



