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Adelaide Hills Amateur Radio Society Inc

April-August 2021 Newsletter



PRESIDENT'S COLUMN

The President's words for April 2021 (Updated August 2021)

G'day folks, it is August 6 2021 already and this Covid menace is still with us. I trust no AHARS members have come down with Covid. We will still be under Covid restrictions for at least all of 2021 and this will make having our traditional BIG buy and sell in November not possible. At this event we are likely to have 200 plus people attend and just imagine trying to enforce social distancing with so many people clambering to get hold of the best bargains. I know there is a lot of pent up demand for auctions and "buy and sells". Smaller clubs than ours are holding such events soon but they have far less members than AHARS. We also get quite a few interstate visitors and a vendor or two for our BIG B. and S.

Instead we will have at least one silent auction and a members only buy and sell during the rest of this year. [See "Calendar, page 2—Ed.]

While you have had your movement restricted for the past year or more have you finished some UFO's or repaired some nice old equipment or made some new fangled project. How about sharing the stories with the members, it may encourage others to get back to the work bench. Write a story with or without photos and send it to John the editor, and he will then have some material to put in the next AHARS news letter. If you need help with producing photos for your article I am happy to help with this.

We have had no problem with the Covid rules at our monthly meetings (face to face QSO's) and attendance is gradually increasing. See many of you at a meeting soon.

That's all from me for this news letter, use your radio gear, talk to others, stay safe and healthy. Phil, VK5SRP

EDITORIAL

Our "April" Newsletter is a little late, but finally on the newsstand:

The primary delay has been in obtaining permission to reprint an article from a science magazine. (See pp6 and 7).

I note the prophetic words of President Phil in his column above.

In March, I had the pleasure of attending our training session, and seeing and hearing some bright young men gathered together in our Shack. I look forward to hearing them on-air, and meeting them in person at some stage. (See page 4) Perhaps you will note a certain incongruity in the article UNDERSTANDING ENGINEERS on page 4?

AHARS AUCTION: Please see page 4 for details.

*Thanks to Hans (VK5YX), and Lesley (VK5LOL) for proofreading this newsletter.
Chilly Cheers, John, VK5EMI, Editor. (-... ..!)*

AHARS Calendar

Month	Date/Day	Activity	What
AUGUST	19th, Thursday	Grant VK5GR and the whole A35JT team telling us about the Tonga expedition.	Blackwood Community Centre
SEPTEMBER	11th, Saturday.	Club AUCTION. Inspection at The Shack. (Subject to COVID rules).	Please keep an eye on emails from the Estate Manager, VK5EMI
	16th, Thursday	Members Show and Tell. (Bring your favourite item/s along!)	Blackwood Community Centre
OCTOBER	21st, Thursday	Codan radio by Det VK5DET	Venue—TBA. Keep your ears on the Sunday Broadcast, and eyes on emails.
LUNCHEONS AND SHACK MORNINGS: Difficult to predict, but likely that these will be cancelled, at least to October. Please keep ears and eyes attuned to messages from our President.			

MEETING REPORTS:

MARCH. 18th: Brian, VK5VI, spoke on the history of the Sunday broadcasts.

Almost since time immemorial there has been a transmission of amateur news and notes emanating from SA. At our March meeting Brian VK5VI gave a talk on the history and current status of this activity now known as the "Sunday Broadcast" here in SA.

This broadcast was originally known as a "Session" by decree as the name "Broadcast" was embargoed by the then Broadcast Control Board.

The Session/broadcast originated on 160m AM live from a presenter with amateur-related information compiled from various sources. A later presenter compiled audio files sent in or captured via telephone and recorded to tape. These tapes were edited and compiled to a *master* tape sent to the originating station and went to air dutifully at 9am each Sunday.

Later innovations saw this broadcast being sent via telephone modem (at 300b/second) to a more permanent facility at the EARC facility in Elizabeth north of Adelaide. Unfortunately this still required someone to be in attendance to turn on the equipment and ensure it went to air on time. The list of "someones" diminished over time.

Circa mid-2000 Brian was approached to offer a suggestion as how to bring this broadcast into the 21st century and be less-reliant on an operator to be present. The suggestion was to automate a remote system, to auto-download the national news file and produce a local news file from contributors via email.

This automated system has been working now for more than 15 years and continues to provide amateur related news to members with minimal effort.

Many thanks to Brian, for the provision of this recap on his excellent talk at the meeting. (Ed.)



From Patrick, VK5MPJ. Sequestered in Melbourne.

Sadly, my father Russell passed away on September 20 2020 after a long illness. When I first started in amateur radio, I was only able to participate because of Dad, he was my transport for almost every meeting and activity, including a weekend at Wombaroo for John Moyle 2010. In more recent years, I started driving, and Dad no longer needed to come with me. However, he spoke fondly of the time we spent at AHARS together, where he was always known as "Patrick's Dad"!

Patrick, VK5MPJ

AGM REPORT

(Plagiarised from Phil's original report).

We now have a new Secretary, Glenn Moore VK5GLM. A BIG thankyou to Glenn for putting up his hand for this position. The rest of the committee members have continued on in their positions including me as the President.

At the AGM President Phil, VK5SRP, issued certificates of commendation to five members who have given outstanding service to AHARS throughout 2020. These were:

Barry Williams VK5BW - Repeaters, remote site and training

Paul Simmonds VK5PAS – The AHARS web site

Sasi Nayar VK5SN - Training officer

Paul Hoffmann VK5PH for the provision of the remote receiving site and training.

Christine Southby for the provision of our supper at each general meeting.

After the formal part of the meeting was over, Paul VK5PAS, the web master, gave us a good introduction to the AHARS web site. Thank you Paul for all this effort

SUBSCRIPTIONS:

Pat, the treasurer, is impressed with how many members have paid their subs for 2021 already.

The committee last year decided to increase the Subs by \$5.00 to non WIA members. Pat has pointed out these people cost us extra for our WIA provided insurance. The subs are still \$20 for WIA members and \$25 for non WIA members if paid before the end of March. After that date there will be a \$5.00 late fee.

You can pay by direct deposit: Name: AHARS, BSB: 105 186, Account no: 036 248 940

We are also going to have name tags made. We have a few names of members who wanted these but the lack of a secretary and Covid meant these have not been processed yet. With the change of the foundation licence to three letter call signs there will be members who wish to have a new name badge.



At the AGM: Treasurer Pat explaining the fiscal summary to the membership.



Web-master Paul, VK5PAS, took the membership on a tour of the website. The small dots are maps, each representing a country which has visited our website.

Further Notes on the AHARS website :

Visitors		
	11,024	 60
	2,771	 53
	539	 52
	369	 50
	332	 49
	314	 48

"Hi John (re flags).

For example, there have been 11,011 visitors to the site from Australia, 2,770 from the USA, and 539 from England.

I also have a Visitor globe which plots visitors on the world globe. Each time someone visits, they leave a red dot where their location is. If you view the globe in real time, you will see a banner come up when someone visits the site showing their location.

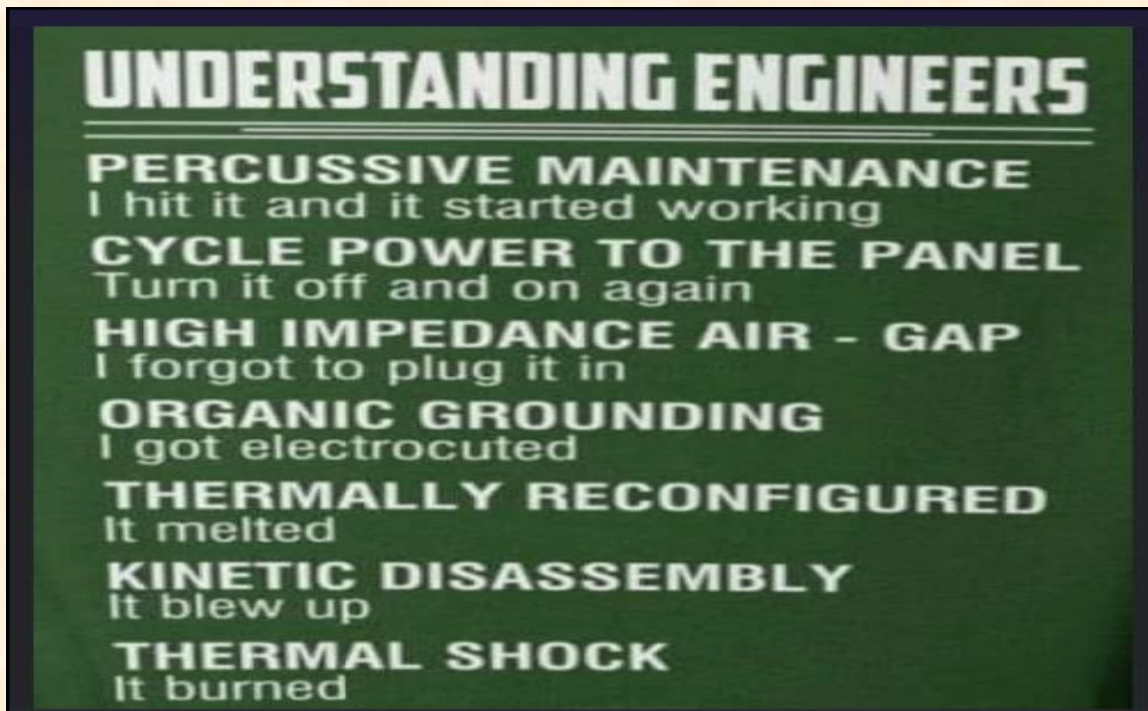
73,Paul, VK5PAS."

TRAINING WEEKEND

AHARS ran a training and assessment weekend on the 27th & 28th of February at the shack. The course was run by the Club's training officer, Sasi VK5SN, ably assisted by Barry, VK5BW, and Paul, VK5PH.



Sasi and Barry at right, with a full classroom.

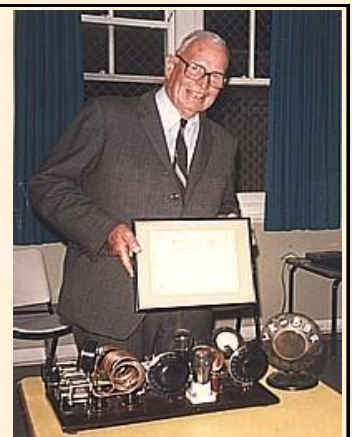


From
Imgur

MISSING AHARS MICROPHONE: ("VK5BAR").

Lloyd (VK5BR), is still looking for this special Microphone, (the one at far right in the photo) which went missing a few years ago.

Please contact him, (ldbutler@tpg.com.au), or Phil (VK5SRP) if you can help locate it. (Ed).



QSL REPORT

In February, I received a large number (176) of QSL cards from the National QSL Bureau, via AREG.

Not all cards were for AHARS members, but I sent them on this time. In the future, I will ask those intended recipients to pay postage in advance. (At only \$25 for membership, who can complain either way?)

ESTATE REPORT

Very little in the way of sales in the past 12 months.

There was a members' only Buy and Sell at our meeting on April 15, but when will be the next major one is somewhat unpredictable. If I dare make a prediction, it might be this coming November.

If you are looking for a particular item, you can contact me, and I may be able to help. At the moment, though, I have little in the way of good, modern gear.

With my two estate compatriots, we have planned a blind auction for September. More on that via email and the broadcast, once details are ascertained.

The 2021 ADELAIDE RALLY

The map below shows the meeting point for Special Stage 26.

With my rally compatriot, Paul, VK5ZRT, we operated from the Start Point of the stage, near Upper Sturt Road.

***** I counted about 360 cars in this rally!***



<http://sa.wicen.org.au/>

WICEN President, Louis, VK5FLY, at Rally Control HQ.

If you're wondering what's involved in doing radio comms for a car rally, here's a short run-down:

1. Register on the Rallysa website:
<https://rallysa.com.au/>
2. Await feedback : all of the information that is needed comes from the head office, and WICEN people.
At right is the allocation map that Paul and I received for our stint in the above event. ►
3. Other AHARS members (heard during the event, but rarely seen!) include Paul (VK5PH), Alan (VK5AR), David (VK5LSB), David (VK5DC), and Rodney (VK5KFB).
It's great fun, and we're making good use of our radio skills. (Ed.)

Welcome to the STURT VALLEY Stage

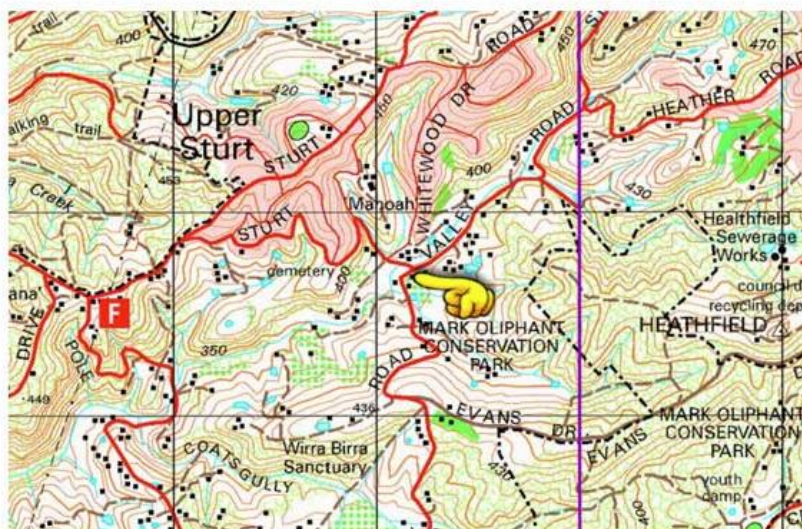
1:00 pm on Friday March 26th

Thank you for volunteering your time to help us run the Shannons Adelaide Rally.

You have been allocated to the **Sturt Valley Stage** as a Stage Official.

Where do you need to meet your Stage Commander?

The meet point will be Intersection of STURT VALLEY ROAD and IRONBANK ROAD, UPPER STURT



LITHIUM

From Cosmos Magazine

<https://cosmosmagazine.com/>

“Cosmos Briefing: Lithium

Experts discuss lithium and renewable energy needs.

As the demand for renewable-energy technologies skyrockets, we need to think about how to source their constituent materials without further damaging the world we’re trying to save, according to yesterday’s Cosmos Briefing.

Rick Valenta, from the Sustainable Minerals Institute at the University of Queensland, and Mahdokht Shaibani, a research fellow at Melbourne’s Monash University, discussed the future of lithium – a key component of batteries. With 55% of the world’s lithium supply currently coming from Australia, they highlight our nation’s responsibility to mine it in a sustainable way.

The session was hosted by the Royal Institution of Australia’s lead scientist, Alan Duffy.

According to Shaibani, lithium metal is the “ultimate choice” for use in a battery, with “the highest theoretical capacity and the lowest electrochemical potential”. This means that it stores a large amount of energy for its weight, and it also can cycle – charge and discharge – several hundred times with a very small degradation in the battery’s capacity.

But there’s surprisingly very little lithium metal itself in any lithium-ion battery – just 2%, as it works more effectively as a composite. Small percentages add up, however, resulting in a huge ongoing effort around the world to source this valuable metal.

So where do we find it?

According to Valenta, although Australia currently supplies a large chunk of the world’s lithium, more than half of the world’s reserves are in the “Lithium Triangle”: Chile, Argentina and Bolivia.

“The total amount of lithium that [Australia has] is about 200 million tonnes – that we know about now,” Valenta adds. “That’s an important distinction, because we’ve hardly started looking for it.”

He points out that the process of lithium mining poses many challenges, from intensive energy use, to potentially contaminating chemicals, to high water usage.

While lithium derived from hard-rock mining has a larger carbon footprint, lithium derived from salt brines – the main source of the large South American reserves – requires a large amount of water for processing, which may have social ramifications for regions already under severe water stress....

Valenta says that unlike other elements needed for the energy transition, such as cobalt, lithium will not become critically scarce anytime soon.

“We’ve got a lot, so we really have the luxury of being able to choose the sources that have the least environmental social footprint,” he concludes.”

COPYRIGHT COSMOS MAGAZINE, ETC

This text is part of an article in Cosmos Magazine of January 26 2021.

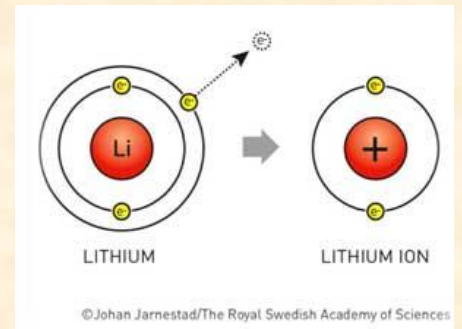
Many thanks to Cosmos Magazine for kind permission to re-publish this part of the article

I acknowledge the work of Prof Alan Duffy, Prof Rick Valenta and Mahdokht Shaibani in the production of this article, and related research, and assistance from Ian Conellan—Ed.

THE AUSTRALIAN SCIENCE CENTRE, ADELAIDE

<https://www.smc.org.au/>

In the Old Stock Exchange Building in the City. Worth visiting!! - (Ed.)



LITHIUM BATTERIES:

We radio buffs have a natural interest in batteries.

Over the past few decades, major developments in battery chemistry and technology has led to a great improvement in capacity, weight, and charging time of these companions of our hobby. The most impressive outcome I think, is the lithium battery.

There are three main types of interest::

1. Lithium ion. (Less safe)
2. Lithium Polymer. (Safer)
3. Lithium Iron Phosphate (LiFePo4). (Safest)

Boosting Battery Life

1. Use partial-discharge cycles. ...
2. Avoid charging to 100% capacity. ...
3. Select the correct **charge** termination method. ...
4. Limit the **battery** temperature. ...
5. Avoid high **charge** and discharge currents. ...
6. Avoid very deep discharges (below 2 V or 2.5 V)

LITHIUM BATTERY SAFETY

Most of us will have some idea of this matter, with papers and talks by our travelling types (SOTA, VKFF, etc) John VK5BJE, and Paul, VK5PAS, amongst others.

The safest type is LiFePO₄ (Lithium Ferric Phosphate).

The other, cheaper type is Lion ion, which can explode or catch on fire if not properly charged or stored. Quality units now have inbuilt protection—at least in the major brands.

Proper Care Extends Li-Ion Battery Life

Further information from these sources, inter alia:

<https://www.powerelectronics.com/markets/mobile/article/21859861/proper-care-extends-liion-battery-life>
batteryuniversity.com

<https://www.sealedperformance.com.au/lithium-iron-phosphate-battery-lifepo4/>

<https://blog.ravpower.com/2017/06/lithium-ion-vs-lithium-polymer-batteries/>

The latter two are excellent, detailed articles, which are available also from the Editor.).

It's essential to use the appropriate charger with your Lithium battery.

Good quality lithium batteries have a BMS (Battery Management System) built in, and these prevent thermal runaway and other nasties from occurring. (Worth checking with sellers!)

REDARC (A South Australian Company. (Not an advertisement!))

<https://www.redarc.com.au/>

Located at 23 Brodie Road North, Lonsdale, Redarc is an active and innovative manufacturer of quality automotive products.

There's plenty of useful advice on their website, eg, CARAVAN AND CAMPER TRAILER TRAVEL, E T C .

DISCLAIMER: Although I have taken care in the assembling of the above facts, I cannot guarantee them to be 100% reliable. I am happy to hear from readers on this subject however. (Ed)

Adelaide Hills Amateur Radio Society Inc

GENERAL INFORMATION, NOTICES & CLUB CONTACTS

Club Projects

Saturday morning technical talks.
Details from Roy Gabriel, VK5NRG. Ph 8278 2522.

Amateur Radio Licence Study Courses and Examinations Foundation, Standard and Advanced Licences.

Please See Club Program For Dates
Location: The Shack, Blackwood.

Contact Sasi Nayar VK5SN
0417 858 547 or email vk5sn@wia.org.au

Club Wireless Net on VK5RAD
Listen to or join in on Monday nights
from 8 pm to about 9:30 pm local time.

Receive frequency is 147.00 MHz, with -600 KHz offset.
Net Controllers: VK5s' Jim (TR); Dean (LB); Barry (BW);
Roy (NRG); David (LSB); Lyle (WL), Steve (AIM).
All licensed amateurs are welcome.

VK5RAD (Crafer's Repeater)

The Repeater Controller is Barry Williams.
All enquiries, including requests for access, etc,
are to be made through him.
Phone 8339 5683 or email vk5bw@wia.org.au

Australian Ladies Amateur Radio Association (ALARA)

<http://www.alara.org.au/>

**State Representative: Jean VK5TSX
Phone: 08 8322 0066**

Encouraging women's interest and active participation in Amateur Radio.

ALARA was formed in 1975 by a small group of
Australian ladies interested in Amateur Radio.
Membership has now grown to over 200, with
many Australian members sponsoring
overseas YLs into ALARA.

The term "YL" stands for "Young Lady"
regardless of age.

Luncheons are held monthly—contact Jean for
more details.

They have a net on 80 metres on Mondays
at 1000 UTC in winter and 1030 UTC during
summer (day light savings time) at 3.570 MHz.
There are also EchoLink skeds.

CLUB CONTACTS

Club President	Phil Storr VK5SRP 0428 835 621
Vice President	Barry Williams VK5BW Phone 8339 5683
Secretary	Glenn Moore VK5GLM
Treasurer	Pat Storr patstorr@adam.com.au
Licence Training	Sasi Nayar VK5SN See Opposite

Meetings & Venue

***We are again meeting, but subject to
current Covid-19 provisions.***

AHARS usually meets on the third Thurs-
day of each month, commencing at 7:30
pm., at the Blackwood Community Cen-
tre, Young Street, Blackwood.

A.G.M. February, each year.

Postal Address A.H.A.R.S P.O. Box 401,
Blackwood, 5051.

Website Address & On-Line Newsletter

The address for our refurbished website is:
<https://www.ahars.com.au/>

Or ahars.com.au/

Thanks to Paul Simmonds, our
web-master.

Articles For The Club Newsletter

Projects, anecdotes, experiences, ideas, advice,
etc, all make interesting and useful reading, and
will be much appreciated.

Please forward direct to the

Editor- John Elliott VK5EMI

phone 0411 610 106 or by email
(best) to vk5emi@wia.org.au

Publisher- John Elliott, VK5EMI

**The Next Newsletter
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October 2021.**