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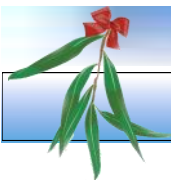
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Adelaide Hills Amateur Radio Society Inc Christmas 2019 Newsletter



PRESIDENT'S COLUMN

The outgoing President's notes for December 2019:

For 2019, we shifted the very successful AHARS Buy and Sell to the Marion RSL because of the restricted parking we were experiencing at the old venue. It was great success and we had three overseas visitors in 2019. From Austria we had Wolfgang OE4WOG and Hans OE2JOM, and from France we had Patrice FK8HA and his wife.

We only had three commercial vendors this year; from Melbourne we had Ross from Strictly Ham and Graham from RBL communications, the first time has made the journey to Adelaide. Another first appearance was Pat Cookson who is wishing to dispose of a stock of Jackson hardware including exquisite tuning capacitors and reduction drives. Pat and her late husband, Charles run Cookson controls who supply a vast range of spare parts for ovens, cook tops and all manner of kitchen hardware. Her husband had ordered a lot of Jackson hardware just before the Jackson factory in the UK burnt to the ground and now the stock they have may well be the last of many of these items left anywhere in the world. If you would like a list of the items, send me an email to vk5srp@wia.au.org.

(cont on page 2...)

EDITOR'S BLURB

At this time of the year, all of us "oldies" are asking "where has the year gone?" Do we remember when it seemed to take forever for Christmas to come!

This year, I've continued to work with Barry (BW) and Phil (SRP) on estates: Overall, estates have been coming in faster than we can dispose of them; that will continue to be a challenge to those of us involved with this important duty.

Decisions re which estates we don't deal with in the future need to be made—not easy, as we don't want the wrong people selling radio gear. If you have a huge amount of radio gear at your QTH, now may be a good time to consider moving some of it on yourself, tough though that may be.

*Best wishes to you all for a "2020" 2020!
Cheers, John, VK5EMI, Editor. (--... --!!)*



PRESIDENT'S NOTES (Cont).

The 2019 annual picnic was held at the Marion RSL and was a great success, so much so we have booked the venue again for 2020. It will be on the 19th of January and the starting time is 10AM onwards. The committee has decided the picnic will be free to AHARS members but your partner and friends will have to pay \$10.00 for the meal unless they are also members of AHARS. The treasurer, Pat is collecting names for the picnic so please send her an email with your name and call sign and the names of anyone else who is coming with you and indicate if they are also AHARS financial members. Pat's email address is patstorr@adam.com.au

While I am talking about finances, your subs for 2020 are due at or before the February AGM. The cost of membership is still \$20.00 if paid before the end of March. After that date it will be \$25.00.

Blackwood RSL lunches on second Fridays, the last one for 2019 will be the 27th of December, yes two days after Christmas. Then in 2020, the lunches will be January the 10th and the 24th, February 14th and the 28th.

No more shack mornings for 2019. The 2020 January shack mornings on the second and the fourth Saturday will be 11th and the 25th and in February the dates will be the 8th and the 15th.

Best wishes for a safe and happy silly season and 2020.

Phil VK5SRP is retiring at the end of this three year term. Would you like to stand for a position, or nominate someone else? So far we have nominations for the executive positions but we need one or two nominations for committee people.

FOOTNOTE: Please make sure we have your current, valid email address.

Phil Storr, VK5SRP. President AHARS.



A bit of history:

You should recognise at least one person in this—he's a current club member.

The lady was at our last Buy and Sell day.

I recognise four of those in the photo.

Readers are welcome to send me the names of those in the photo, and send me the date, too, if possible.

This would have been a meeting of the state WIA.

2020 CLUB PROGRAM

DATE & TIME		EVENT	LOCATION
Regular gatherings	<i>2nd & 4th Fridays</i>	<i>Regular Luncheons (All welcome)</i>	<i>Blackwood RSL, Brighton Parade</i>
	<i>2nd Fridays</i>	<i>ALARA Luncheons</i>	<i>Contact Jean, vk5tsx@bigpond.com</i>
	<i>2nd Saturdays</i>	<i>(CATS)*</i>	<i>The Shack</i>
	<i>4th Saturdays</i>	<i>Technical mornings (TBC)</i>	<i>The Shack</i>
JANUARY	Sunday 19th 10 AM	PICNIC See President's Notes for details	RSL, Marion
	No general meeting.		
FEBRUARY	20th. 7:30pm	A.G.M. Shack mornings start on Feb 11th.	Blackwood Community Centre The Shack, Hannaford Road.
	AHARS events after the AGM will be set by the new committee after that meeting.		
NOVEMBER	Annual Buy and Sell		
<i>Details up to date as at Dec 14th, 2019.</i>		*CATS = Coffee At The Shack (what else?). Also see the AHARS website : http://www.ahars.com.au/upcoming-events.html	

INTRODUCING ALARA

Hello, from Shirley, VK5YL, Vice President of ALARA, the Australian Ladies Amateur Radio Association. Our Association was formed in 1975 to encourage ladies into amateur radio, and to support and engage those who already had their call signs. This was at a time when there were few YL operators on the bands. (YL stands for YOUNG lady, no matter what age!)

Today ALARA has around 200 members, some of whom are from overseas and often sponsored into ALARA by Australian members. Many of these sponsored members, reciprocate by sponsoring VK ladies into sister organisations overseas. This way we are able to keep abreast of YL events world-wide.

ALARA publishes an excellent quarterly Newsletter which is distributed by post or email, whatever your preference. We also have a Certificated Award for the number of ALARA members worked, and an annual contest held on the last full weekend in August.

Every three years, as many of us as possible get together in person, at our *ALARAmeet*. This usually takes place over a four day weekend and is held in a different States each time, so that it gives us a chance to meet face to face, with the voices we may only have worked on air. Our next *ALARAmeet* will be in Bendigo Victoria, from 2nd to 5th October 2020 which is shaping up to be an exciting weekend.

We hold regular Nets every Monday night on either 80 meters (3.570 MHz) or on Echolink - a radio link via the computer with only licensed amateurs able to connect.

From time to time lunches are held in a number of States. In VK5 they are monthly and in VK3, bi-monthly. Other states meet irregularly.

If you are a YL who is considering getting your Foundation licence, or upgrading to a Standard or Advanced licence, ALARA now has a Grants Program, which will reimburse half the cost of the licence and examination fees, and, on top of this, ALARA will also give you one year's free membership.

For more information on this, or any of the other subjects we've mentioned, please go to our website www.alara.org.au

Come join us for some fun radio times which are not always technical.

KNITTING IN OUTER SPACE

(The noun, not the verb!)



KNITTING IN OUTER SPACE

Researchers at Nottingham Trent University have designed a satellite antenna made from knitted gold wire.

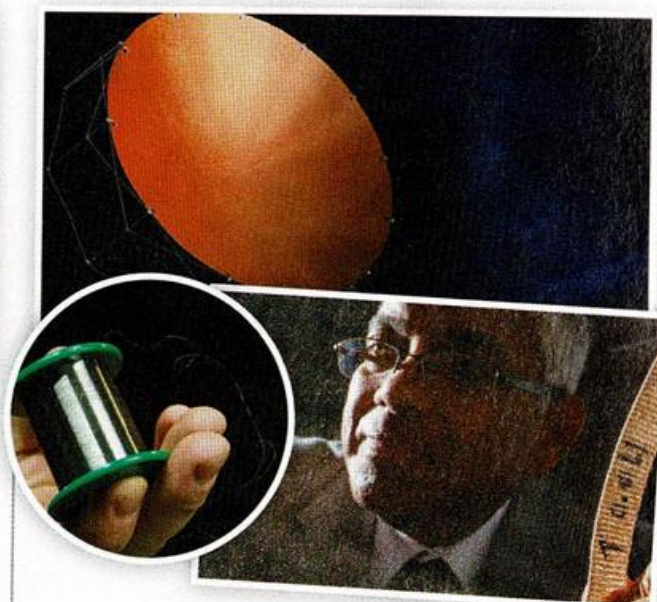
The knitted fabric is attached to an expanding frame rather like an umbrella, and once in place on the satellite helps to send and receive radio signals in orbit.

Knitted wire was chosen because it is lightweight, flexible and easy to deploy, and the project was developed in collaboration with space technology business Oxford Space Systems.

"Few people associate knitting with high-end space technology," says project lead Professor Tilak Dias, head of the Advanced Textiles Research Group in Nottingham Trent's School of Art & Design.

"However due to the advancements in knitting technology we can now knit an antenna which is extremely lightweight, cost-effective and robust enough to withstand solar radiation.

"This is a very exciting research project.



And by working with Oxford Space Systems, we hope it will lead to the UK becoming a manufacturing centre for similar high-performance space materials."

The antenna is knitted from wire thinner than human hair which has been gold-plated to help it resist the harsh environment of space.

Researcher and senior lecturer Will Hurley says: "By making a satellite antenna as lightweight as possible, we can save on valuable materials and make the technology easier to deliver to space.

"And by applying novel knitting techniques, we can eradicate waste from the manufacturing process and save on valuable resources.

"When you consider that knitted gold wire can cost hundreds of thousands of pounds per square metre, waste is something we have to be very mindful of."

The above is an * Extract from Knitting Issue 180, May 2018

* Subscribe to Knitting here

* Copyright © GMC Publications

Link to digital edition: <https://pocketmags.com/knitting-magazine>

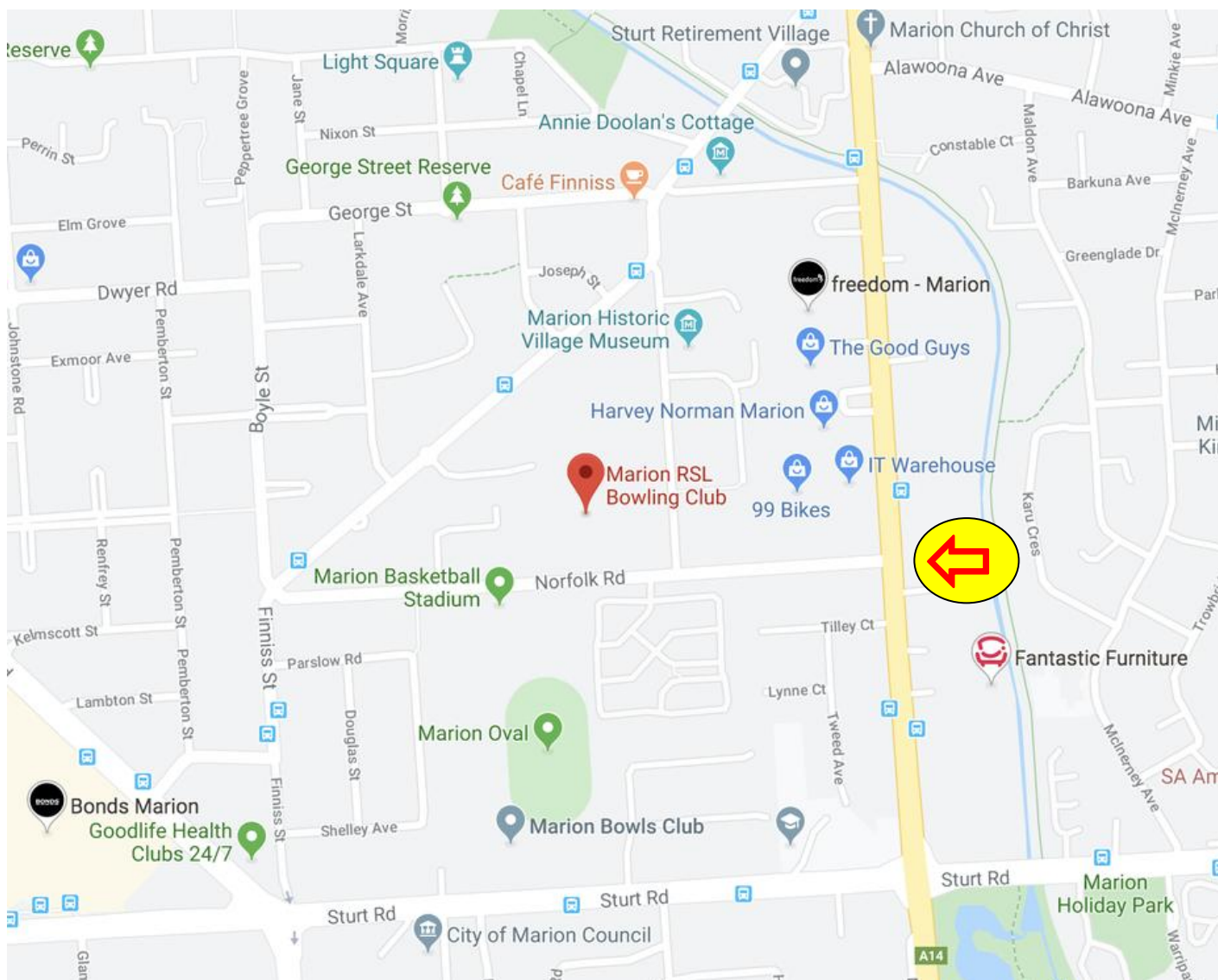
Link to subscribe: <https://www.gmcsubscriptions.com/product/knitting-magazine/>

Many thanks to "Knitting" magazine, UK, for permission to publish this interesting article—Ed.

AHARS 2020 Annual Picnic, 19th January 2020

To be held at the Marion RSL.
Start time at 10.00 a.m.
Cost \$10.00

Enter via Norfolk Road, off Marion Road



W.I.A. PICNIC

Belair National Park.

Approx late 1950's.

PS: Looks like cricket is in order for the day. Maybe AHARS could rustle up a cricket match one day?

*Can any of you recognise any of these people?
If so, please let me know—
Ed.*

AHARS' 2019 BUY and SELL DAY : Nov 3rd.

The inaugural B&S day at The Marion RSL went well:

The new venue has many advantages over the previous one at Goodwood:

Cheaper to hire, much better parking, good meals, and drinks from the bar.

Thanks to the AHARS workers who organised the event, and the Marion RSL for hosting us so well.

Three special vendors were Strictly Ham from Victoria, RPL Comms, and Pat Cookson, the selling top quality parts from the Jackson Bros business. (See page 9)



← In the back room.

The main hall - pushing and shoving room only.
↓



Heaps of pre-loved treasure and bargains for the erudite amateur.

The Slower the Better.

A friend of mine lives at the top of a hill; he's built up—inter alia—a sophisticated data transmission setup, for controlling pumping between his rain water tanks, and property surveillance for security purposes.

Although not a radio operator, he has a good knowledge of electronics, and puts that to good use in the management of his property.

Some months ago, I offered him some old, large, inductors, which he readily took (much to my surprise). When questioned, he replied:

"Hi John,

I think the previous owner of those electronic parts would approve - the boards etc have become part of a 6 pole LC

Chebyshev filter which is being used to transmit and receive Morse code.

And why, you ask, would anyone need such a thing?

Well, I have a 500metre data link, and every time there is a lightning strike nearby it destroys things. Even a simple relay gets zapped. So I want lots of surge suppression at both ends - gas arresters, poly switches, big inductors, zeners, and a filter with a sharp rolloff. The upper frequency is limited by the rise time of a typical lightning strike. So the data rate has to be very slow - hence Morse code. Plus you can read Morse code from a flashing light!"

All sounds very interesting!

We learned a bit of Morse in the scouts. Nowadays of course you can cheat and program a \$5 arduino board as a transmitter and another one as a receiver. It is only a few lines of code. The other option is very slow serial (10 baud or less) but Morse is better because it is easy to debug.

Still, it is not quite as simple as it sounds. The sender and receiver might not be quite the same pulse widths, so you have to put in error margins for a dot and a dash.

Ultimately it does something fairly simple - turns on one or two pumps, and then there is data from two flow switches coming back the other way.

(Signed) The mad monk of Mt Moxham!

[Food for thought! Thanks MM, Ed.]

DODGY PLUGS AND SOCKETS

Ladies at my wife's craft guild often commented on how hot the socket on one of their extension cords became when running heaters from them.

She checked it out, and agreed with them. The cord had been recently approved by tag and test, but when a further test was given, it - and one of its mates—failed.

So, I took the cable, to Tag and Test el Supremo, Graham, VK5ZFZ. Graham examined the socket, and pointed out the black deposit on one of its terminals:

For reasons unknown, the Active terminal was badly corroded. That corrosion caused a high resistance, leading to a large voltage drop, manifested as heat.

Note the value of the transparent cover on the socket for this particular troubleshooting exercise.

SUMMARY :

1. Believe your wife when she says that something is "really hot"!
2. An excess of heat at any point in a circuit is a pointer to problems.

[Footnote : The plugs and sockets have now been buried with full military honours—Ed.]



A Blast from the Past

Selling bicycles and radios from the same shop. Why not?

Some of you will remember some of the radio types (and have built something similar, as I have) that are mentioned here.

Bullock Cycle and Radio Stores

Bullock Cycle and Radio Stores demonstrated a range of the high class Reactodyne receivers manufactured in their up to date radio factory. Development of the receivers was under the personal direction of Mr. C.A. Madern who had been associated with radio for many years overseas. They also exhibited a Reactodyne kitset and a wide range of components from their extensive stock. These included the Croix L.F. transformer, a transformer of French origin which caused a considerable stir overseas, a

range of AJS loudspeakers, Thordarson transformers, Star tubes, Pilot radio parts, Therla fixed condensers, and Liberty, A.B., and Newey and Ormond variable condensers. A wide range of headphones was also on display and included Gecophone, N and K, Brandes Matched Tone, Ediswan, Brunet, Brown and Sterling models.

The four and five tube Reactodyne set received a lot of favourable comment. The four tube model employed the well proven tuned radio frequency circuit and demonstrations showed it to be a very efficient and sensitive receiver of long distance stations. Filament rheostats were provided to enable the correct voltage to be applied allowing for a wide

range of conditions of accumulators from the fully charged condition to the point where recharge should be effected. Switches allowed the set to operate on either three or four tubes. Three dials were provided for tuning purposes. One controlled the reaction. The five tube set had an extra radio frequency amplifier to improve performance with Interstate stations. Both units covered the band 200-600 metres and were available in a wide range of cabinets. Their tuned plate receiver which covered 20 to 2000 metres was popular with country people who attended the exhibition.

The company's large showroom was at 65 Rundle Street and only a comparatively small part of their full range of components could be displayed on their stand. The range of headphones were closely examined. The cheapest was a Gecophone headset with bakelite cases and pigskin leather headband. Impedances varied from 2000 to 6000 ohms in this model. The Sterling Lilliput was also a favourite. The bobbins were impregnated with insulating material to avoid corrosion. Another feature was that

there were no external nuts. The terminals were totally enclosed thus preventing any danger of short circuiting. The Ediswan headphones were also sold in large quantity. These double head receivers embodied the two most sought for qualities namely efficiency and comfort. The cases were of polished pressed aluminium with moulded earcaps. The headband was of the double pattern, highly polished and the receivers were attached by means of ball and socket joints.



Bullock's THREE SPEED CYCLES
Find out about the Three Speed Gear
-It adds a lot to the Joys of Cycling

GET some rider of a three geared bike to explain you its value. He will tell you that with it you can travel further with less fatigue; that the highest hill holds no terrors, for the lowest gear means easy climbing; that on the level you may choose your pace by switching on the highest or the medium gearing. You certainly should see this three speed model.

Easy Terms can be arranged.
Catalogue Free

Bullock's Cycle Stores
65 Rundle Street,
101 Pirie St., Adelaide
Also at Murray Street, Gawler.



NEW PUBLICATION FOR RADIO AMATEURS:

"Low Bands ham radio: Special 2020 International edition An edited 2200m, 630m & 160m bands resource compendium", by 'Doc' Wescombe-Down VK5BUG.

280 A4 pages produced by international request for the ARRL, RSGB & WIA spheres of influence. Contents include:

- Ham radio metamorphosis
- LF-MF hollow-state electronics and Nuclear Electro Magnetic Pulse (NEMP) synergy
- Interesting LF-MF anecdotes from all over the world
- Adapting an existing home station for LF-MF action
- FAQs
- LF-MF propagation in detail
- Grounding & lightning protection
- Safety
- LF-MF transmitting & receiving antennae
- 'Big bore' helical verticals for 2200, 630 & 160m bands
- Vertically polarized transmitting loops @ 137kHz
- Using an existing tower radiator & antenna array capacity hat at home
- Working with antenna wire
- RF insulation
- Dozens of LF-MF antennae projects
- Transportable LF-MF operation
- 'Coreflute' radial/counterpoise pads for transportable & home station use
- Operating Low Bands from a caravan/RV/campervan/trailer/small boat
- Going bush? Powering up; get going; what equipment to take
- Assembling a transportable Low Bands station on a budget
- Metal detecting, astronomy, DFing, fossicking & other compatible outdoor activities



.....and much, much more!!!

Contact Doc if interested: d.wd@bigpond.com

Pre-paid orders including postage will be available shortly...

Pat Cookson's Jackson Brothers Stall at the Buy and Sell



Pat is selling off quality Jackson goods; tuning capacitors and reduction drives, etc.

Email enquiries to:

pcookson@cooksoncontrols.com.au

DOWN AT THE SHACK *April 27th, 2019.*



REFURBISHING THE GIRL GUIDES' SHED

As part of maintaining our happy arrangement with the Girl Guides, we lined and painted their storage shed.

Roy showing his skills as a master plasterer, under the eyes of Jim, Ruebens, and Frank. ↑

Jim, (trying to emulate Michelangelo?), but his ceiling artistry needs a little more colour. ↑

Note the painting in the background, depicting Girl Guide activities (and not done by Jim!).



27-APRIL-2019 : FReeDV

Peter, VK5APR, demonstrating the new digital mode, to Patrick, VK5MPG at the laptop, watched on by Graham, VK5JGM, and Lyndon, VK5SWR.

This particular mode is Free DV, and an open source digital voice mode.

Contacts were made to stations VK6WR, VK5ARG, VK5GR, VK3ALB, VK5DGR and VK3RV.

FreeDV, based on a fully open source codec known as Codec2, has been created by David Rowe VK5DGR in collaboration with a team spread across the globe. FreeDV is the first new VOICE mode for HF since SSB was introduced in the 1950s and 60s.

More information is available from, eg, <https://freedv.org/> or <https://www.areg.org.au/archives/208305> etc.



October-17-2019 AHARS meeting.

Member, Paul, VK5PAS, spoke to the meeting about his time working as a detective in the SA Police.

The presentation also included the history of Detectives in South Australia and the role/responsibilities of Detectives in the Police Force.

When he offered to do free finger-printing after the talk, it was noted that some members left rather quickly and quietly. *[They're the ones with the best rigs, I bet, Ed.]*

SUNSPOTS:

What are they?

Sunspots help to create good conditions for long-range HF work.

Those of us who like to work the HF bands need the Ionosphere (caused by sunspots) to propagate our signals. HF comms are currently very poor, indeed.

This snippet from member, Andrew, VK5ZUC, provides some information to support our suspicions. ⇒

From [Bonnie KQ6XA](#) :

"I've been saying this for a while:

Solar Cycle 24 had the worst propagation since HF radio was invented.

Lately I've been saying:

2019 was the worst year of propagation since HF radio was invented

.. and now there is solar data to prove it. -Bonnie

Days, Current Stretch: 35 days

Spotless Days, 2019 total: 272 days (77%)

(The green bar shows the number of spotless days in this year. The higher, the worse.)

See bar chart at right, or on :

http://hflink.com/solar/Spotless_Days_Historic_2019DEC18.png



QSL Corner

eQSL for VK5BAR Mysterious QSO's.

I recently confirmed 5 QSL's in waiting from the 2011 JMMFD 'test. The Wheels of QSL's turn slowly!

I am looking for a log/s for 2 metre QSO's for the following:

3-Jan-2016

10-Apr-17

8-Jan-18

12-Feb 18.

All probably from The Shack.

If anyone has any info, pls send it to me.

John, VK5EMI, QSL Manager.

[eQSL is an on-line QSL service. AHARS makes use of it, as do I personally: Ed]

ILLW (International Lighthouse and Lightship Weekend, 2019. Saturday August 16, and Sunday August 17.

From member Alan, VK5AR.

"Hi John. At Cape Jervis using VK5CJL we had many contacts on 160, 80, 40, 30, 20 and 15 m. Andrew VK5CV, and John VK5AJQ were with me

The strangest contact we had was with a Canadian Station on 14mhz for over an hour he was over s9 the whole time, yet we could not hear any USA stations above s3. The Canadian station was 1000 kms north of Vancouver and he was beaming due north!

We finished up using an IC7300 and a long wire around 45 meters, we also used FT8 software. 73, Alan.

AHARS, VK5BAR : At Marino Rocks Light-house

PHONE: On 40m (around 7.125), and 20m and 15m.

Ops = Hans (YX) & Lesley (LOL), Patrick (MPJ) and John (EMI), on voice: 17 QSO's.

On CW: Doc (VK5BUG) @ 0/20/15m : 4 QSO's.

Thanks to the Department of Environment for access to the site.



Doc's XYL's (Ingrid) display at their ILLW site. Note also Doc's camouflaged earth mat.

ESTATE REPORT

AHARS has currently about 20 estates in the books, dating from about 2015. About four of those are complete, two nearly complete, and about nine in progress. The status of the remaining six at this moment is p pending (waiting).

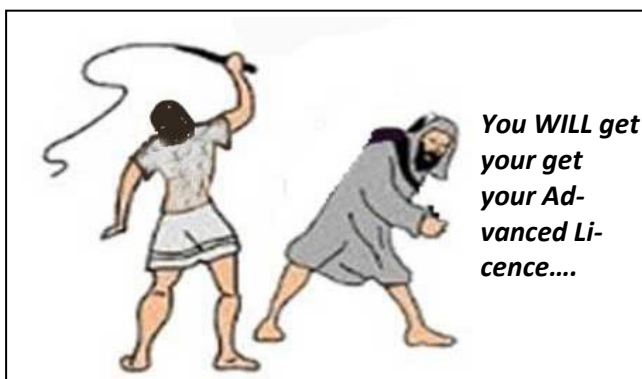
Thanks to those who have helped me with this time-demanding task; Barry (storage, testing and advice), Phil (pickup and storage, etc), Hans (testing), and Norm (sales.)

The value of many estate items is reducing year by year, so it's not unusual for an estate beneficiary to be disappointed with financial returns, or just how long it takes to wind up an estate. (But then, so are we workers!)

Lesser items are sometimes sold by direct sale. If you need a gizmo or an RF schmizzle (and I have some in stock), please give me a call—phone or email—we might be able to arrange a quick sale.

John, VK5EMI, Estate Manager. Ph 8278 1269

SERIOUS STUFF CORNER



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 Weekly 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: VK5's Jim (TR); Dean (5LB); 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.

The SA group meets at 12.00pm
on the 2nd Friday of each month
in the Police Club, Carrington St, Adelaide.

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	Trevor Molde
VK5NIX	8235 0634
Treasurer	Pat Storr
	patstorr@adam.com.au .
Licence Training	Sasi Nayar
VK5SN	See Opposite

** Retiring at the 2020 AGM.*

Meetings & Venue

AHARS meets on the third Thursday of each month, commencing at 7:30 pm., at the Blackwood Community Centre, 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 website is:
www.ahars.com.au

Thanks to Paul Simmons, 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 8278 1269 or by email
(best) to vk5emi@wia.org.au

Publisher-

John Elliott, VK5EMI

**The Next Newsletter
Will Be Published In
June 2020**

