

# Adelaide Hills Amateur Radio Society Inc

## June 2016 Newsletter



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## PRESIDENT'S COLUMN

It seems like it was yesterday since my report in March, but here we are well into winter and a lot of water has gone under the bridge since then (literally).

The Shack program is well under way with the 2<sup>nd</sup> Saturday social gathering being popular and the 4<sup>th</sup> Saturday technical lectures have been well attended. We have more sessions on the Arduino series of micro-processors by Graham Dicker coming up shortly, this will consist of a series of 3 sessions for this year on the micro's and will also cover some of the various shields that are available for them. This is as the result of several requests for Graham to run an advanced course on this subject, so he has obliged and this is it !

There will be more closed auctions of deceased estate coming up shortly, as we have again this year amassed a large amount of equipment from recent passings and donations to the Club, a lot of the gear is in prime condition, with some of it in its original boxes and in good condition. This will become available when safety testing and condition assessment has been completed and the lists are made up for circulation, and we will try to have a viewing day prior to the auction as well, if possible. We will also be holding an open auction at the shack, perhaps on one of the 2<sup>nd</sup> Saturdays or on the 5<sup>th</sup> Saturday of a month, I still have lots of goodies and gear that had been left over from several other auctions and I am keen to remove it from cluttering up my shack. There will be bargains to be had, and quite a few laughs as well as we make our way through the pile of gear to be moved.

The new VHF Antennalyser kits program is still bounding ahead, and at times it is hard to keep up with the demand, we thought that we demand may have slowed down a bit by now, but the overseas component is striding along, with many groups buying bulk lots of kits for their members over there. Considering that the new unit was kicked off just before Christmas and we are now into our third batch of 100 kits, the result has been very good for AHARS.

Next month we have a visit and the Club Lunch happening, this will occur on the 17<sup>th</sup> of July and will be held at the Victoria Hotel at O'Halloran Hill on Main South Road, the date being July 17<sup>th</sup>. Please advise myself or Roy **by the 10<sup>th</sup> of July** at the latest if you would like to come along and enjoy a good afternoon.

We are arranging a visit to the Military Vehicle Museum for one of our Thursday evening meetings. This is located in Sturton Road at Edinburgh Parks, near the RAAF base. They have an extensive display of Radio, Communications and survey equipment, plus can offer rides (for a little extra of course) in Military vehicles ranging from Bren Gun carriers, Half tracks, Saracen and also Tanks. We are looking at doing this on August the 18<sup>th</sup> at a time between 7:00 pm and 10:00 pm. Bookings will be essential, especially if you want to take a ride in one of the vehicles available, which must be notified in advance. Please express your interest ASAP and drop an email to me [VK5BW@wia.org.au](mailto:VK5BW@wia.org.au) or to Roy [VK5NRG@wia.org.au](mailto:VK5NRG@wia.org.au)

We are holding another Foundation training course at the Shack on the weekend of the 18<sup>th</sup> and 19<sup>th</sup> of this month. If you have considered upgrading your license, please contact our training officer Sasi VK5SN at [vk5sn@wia.org.au](mailto:vk5sn@wia.org.au) and book in; we have another Foundation and Exam happening in early October.

The repeater continues to operate without problems, and we now have a set of batteries to back up the power supply.

The Web site is still a 'work in progress' but is being updated on a regular basis, so the events calendar is up to date. We are changing the type of web page and its layout, Paul has been busy and created a new version; we hope to have the new Website up and running next month, so there are still some content to be completed.

Cheers for now & 73 from Barry VK5BW

## EDITORIAL

QSL CARDS: Please see Page 3 for changes to the system. If you wish to be on list, please let me know.

MF DOWN UNDER: Doc's new resource is now available - please read up on it on page 6.

WIA AGM: Despite the remoteness of the venue, nine AHARS members made it to the event, one of whom received an award, and another who created a distance record for 3.4 and 10 GHz contacts on a VK9 entity. John, VK5EMI, Editor. (---... ---!!)

## Adelaide Hills Amateur Radio Society Inc Club Program 2016

	DATE & TIME	EVENT	LOCATION
<b>Regular Gatherings</b>	2nd & 4th Fridays	Regular Luncheon (All welcome)	Blackwood RSL, Brighton Parade
	2nd Fridays	ALARA Luncheons	Contact Jean, vk5tsx@bigpond.com
	2nd Saturdays	Social Get-togethers	The Shack
	4th Saturdays	Technical Mornings (TBC)	The Shack
<b>JUNE</b>	Thursday 16th	Regular Meeting	Blackwood Community Hall (BCC)
	Sat 18th & Sun 19th	Foundation Course	The Shack <u>Sasi Nayar VK5SN</u>
	Saturday 25	Arduino Course (part). If interested, please contact <a href="#">VK5BW</a> or <a href="#">VK5NRG</a> .	<b>The Shack</b>
	<b>Sunday 17th</b>	<b>Mid Year Lunch</b> <b><u>PLEASE</u> RSVP - July 10th at the latest</b> <b>By email to Barry VK5BW or Roy VK5NRG</b>	The Victoria Hotel on Main South Road at O'Halloran Hill
<b>JULY</b>	Thursday 21	Regular Meeting	Blackwood Community Hall (BCC)
<b>AUGUST</b>	Thursday 18	Military Vehicle Museum. (See President's column &/or listen to the Sun- day broadcasts for more information.)	Sturton Road at Edin- burgh Parks, near the RAAF base.
<b>SEPTEMBER</b>	Thursday 15	Regular Meeting	Blackwood Community Hall (BCC)
<b>OCTOBER</b>	Thursday 20	Regular Meeting	Blackwood Community Hall (BCC)

## Member's Contributions

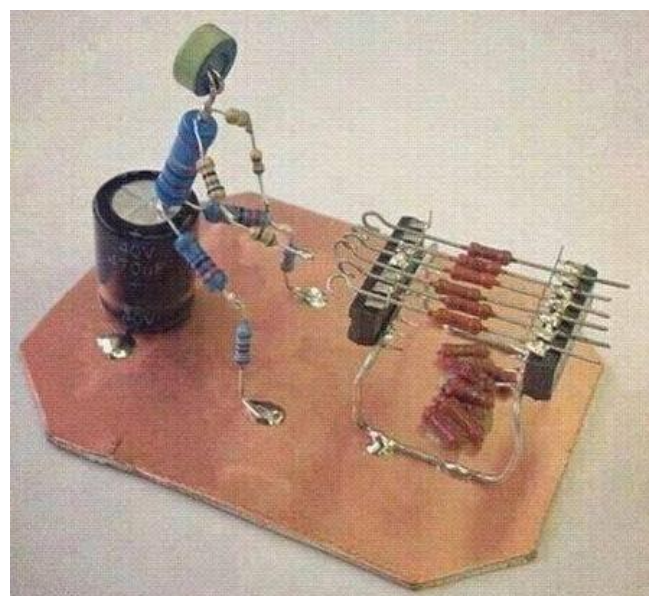
*Thanks to Hans, VK5YX, for this fine example of  
responsible disbursement of one's estate. ↓*



**"To my oldest brother, Tom, I leave my  
AC bench supply. To my sister, Ann, the  
signal generator. To my nephew, William,  
the 555 scope. To my aunt, Mil, . . ."**

Februari 2015

*Thanks to Michael, VK5FMTR,  
for coming across this interesting  
little project on Facebook. ↓*



# Adelaide Hills Amateur Radio Society Inc

## QSL CORNER

Changes to hard copy QSL'ing are outlined below.

The details are also on the AREG site

*John, VK5EMI, AHARS QSL Manager.*

### WIA VK5 Inwards QSL Bureau

#### **New Operational Details Announced!**

Posted April 10, 2016 by AREG NewsReporter

The Amateur Radio Experimenters Group is pleased to announce that it has finalized the new arrangements for the WIA VK5 inwards QSL bureau. Chris VK5CP has volunteered within the AREG to lead the coordination of this service. The club will be following the existing **WIA QSL policy** and will continue to encourage all amateurs that use the QSL Bureau to join the WIA.

All outgoing WIA member QSL cards are to be sent to the national outgoing QSL address (the AREG will not be handling outbound cards):

WIA Outwards QSL Bureau  
P.O. Box 66  
Boolaroo  
NSW 2284

Incoming cards for WIA members are to be sent to the national incoming QSL address (not the AREG PO Box as previously advised by the WIA):

National Inwards QSL Bureau  
P.O. Box 2040  
Bayswater Vic 3153 Australia

- WIA members will continue to receive cards in the mail once a year
- WIA members can nominate a club to receive the cards for distribution on their behalf every quarter, provided four or more members of the same club are WIA members
- AREG members can also collect their cards at an AREG club meeting. WIA or Non-WIA members can collect their cards at a club meeting by prior arrangement (please give at least two weeks notice so that we can ensure that your cards are at the meeting for collection). Email [vk5bureau@wia.org.au](mailto:vk5bureau@wia.org.au) if you wish to pick up your cards at an AREG meeting this way. All changes of address or club destination are to be made in writing by email to [vk5bureau@wia.org.au](mailto:vk5bureau@wia.org.au)
- The AREG will not enter into any private arrangements with individuals (members and non members) as per WIA policy
- Non-Member cards will be retained in the bureau for a period of one year before being disposed of. If non members wish to have their cards posted, it will be a requirement that they become members of the WIA to access the postal services of the VK5 bureau. The AREG will also endeavour to make the QSL bureau cards available for collection at nominated major events (such as the Adelaide Hills Buy'N'Sell) to provide an extra opportunity for non members to collect cards
- The Amateur Radio Experiments Group is very pleased to be able to offer this service to the South Australian Amateur Radio community, and again wishes to thank Stephan VK5RZ for his previous work
- If there are any questions about the bureau, again please email [vk5bureau@wia.org.au](mailto:vk5bureau@wia.org.au) with your enquiries!

***[The above information from the AREG site, on May 30, 2016. Ed.]***

#### **AHARS MEMBERS:**

I have agreement from AREG that incoming QSL cards for AHARS members will come via me or another AHARS volunteer. *Please ask me to have your name put on the list.*

They will be laid out on a back table at subsequent club meetings for collection by members.

Cards not picked up within 4 months will be posted out to those who haven't yet collected their cards.

*John, VK5EMI - Ed*

## *A flameproof spark key with an oil-break design*

**Herman Willemsen VK21XV**

RAOTC member No 1384

**For many years, Ron Ayling G3YUH, a retired master machinist who lives in Margate, East Kent, UK, has been making copies of rare and unique looking Morse Keys<sup>1</sup>, His keys are all handmade and no computerised tooling is ever used in their construction.**

One of the keys he copied was the 1914 oil-break <sup>2</sup>flameproof aircraft spark key, manufactured by the two French wireless telegraphy pioneers, Eugene Ducretet and Ernst Roger. I sold this key in 2012 to Lou Iaquinto VK3LI.

### **Spark keys**

They were named spark keys because, in the early days of wireless telegraphy, these keys were used on spark-gap transmitters on surface ships<sup>3</sup>, in submarines, army vehicles and aircraft. In general a spark key was easily recognisable because it had oversized contacts and featured a large, round knob skirt.

In addition, due to the presence of high voltages, high currents and sparks, these keys were equipped with devices to either cut the transmission of sparks altogether (the Marconi 'guillotine' key as used on RMS Titanic) or to quench the sparks (the Ducretet and Roger 'oil-break' key).

### **Health hazards**

Keying a spark-gap transmitter had its problems and could be a risky business. The *WIT* electro-magnetic transmissions of a spark-gap transmitter were in the form of visible sparks, like lightning strikes, between two brass balls, producing very high voltages and ozone gas (O<sub>3</sub>).

For instance, the break-down voltage of a 1 cm air gap between the brass balls (the electrodes) of the spark-gap transmitter was in the order of 30,000 volts<sup>5</sup>.

The spark key was inserted in the high voltage part of the circuit and sparks could literally be seen flying from the key when the operator transmitted Morse code.

Hairs on the operator's head and arms would stand on end due to static electricity and the unpleasant, bleach- like stench of ozone filled the air. Small amounts of ozone could cause chest pain, coughing, shortness of breath and throat irritation. High concentrations of ozone could damage the lungs.

Although the key contacts were large and could easily take 70 amp currents, they still became very hot.

Some contacts were fitted with cooling fins. In case the contacts welded together, which caused the generator to burn out, the Marconi's guillotine spark key<sup>6</sup> had a long emergency switch on the left side, which was used to break the circuit. Usually a rope, hanging down from the ceiling, was attached to an eyebolt on the side of the switch lever. The rope could be easily found in an emergency and pulling it would disconnect the circuit to the transmitter.

Spark-gap transmitters in aircraft were smaller and lighter than the ones on ships and therefore smaller spark keys could be used. Keys on aircraft not only had to be lightweight, but also flameproof.

The Ducretet and Roger oil- break key ticked all the boxes.

The key's smaller size and the several holes <sup>7</sup> in its lever made it lightweight and the oil-break design made it flameproof. The oil-break system worked as follows: the oil was stored in a small cylindrical brass cup, which held 15 ml of oil. The cup was countersunk into the wooden base and the oil surrounded the lower and upper contacts, located at the front, nearest the knob. The lower contact was integrated into the bottom of the cup and the upper contact was on a rod attached to the lever. During key-up (break) and key-down (make) the contacts were submerged in oil and no arcing occurred as the oxygen was kept away from the contacts. To refill the oil cup and periodically inspect the contacts, the key's lever had to be removed from the pivot, which was a laborious and messy job. The oil cup was fitted with a round rubber or cork lid to protect against oil splashing.

When keying an oil-break spark key, the oil around the contacts quenched the sparks, thus preventing the ignition of gasoline fumes in the aircraft. However, during long periods of sending, the oil in the cup became very hot and smoky. Although oil cup lids were often missing, it was essential that an oil-break spark key used in aircraft always had a lid on its oil cup so that the oil did not spill during any loop-the-loop type flight manoeuvres. The large, round, protective skirt under the keying knob was used to protect the operator against the high circulating currents and static electricity.

Operators definitely earned their money in those days!

The era of oil-break keys, and spark keys in general, was short lived<sup>8</sup>.

When keying relays were introduced, the high currents and high voltages transferred to those relays, which were keyed by the operator whose key now carried a low and safer DC voltage. However, the requirement for flameproof keys continued through WWII and beyond. Examples are the British Bathtub key and the German MT-50.

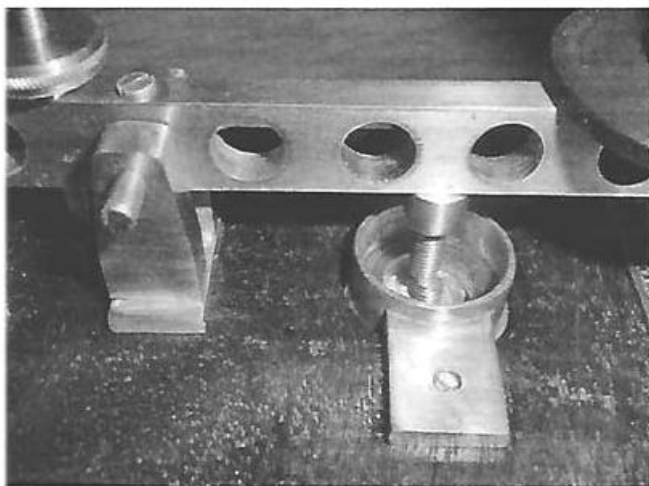
# Adelaide Hills Amateur Radio Society Inc

## Spark Keys

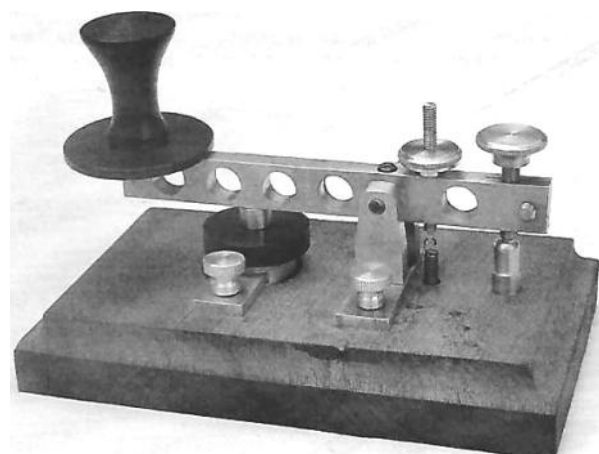
### Footnotes

1. It is worthwhile having a look at Ron's website  
< [http://www.ronayling.dsl.pipex.com/keys8/more\\_on\\_morse\\_keys8.html](http://www.ronayling.dsl.pipex.com/keys8/more_on_morse_keys8.html) >.
2. Oil-break flameproof keys were used in the early wireless telegraphy years (circa 1908-1918) especially on military aircraft spark transmitters.
3. See the articles *A spark gap transmitter - a relic of the past* in *OTN* 46, December 2010 and *The Titanic's wireless equipment* in *OTN* 50, September 2012.
4. Other names are knob skirt, fingerplate, finger-rest and spark shield.
5. The break-down voltage of air is approximately 3,000 volts per mm.
6. Called 'Manipulating Key' in 'Fig 1 - Schematic of Titanic's Marconi wireless equipment' on page 6 of *OTN* 50, September 2012. In the schematic the emergency switch on the left can clearly be identified.
7. Putting holes in a key's lever makes it lighter. Another example of lightening holes, without losing much strength, is the large holes in airplane frames.
8. In 1927 the use of spark transmitters was declared over, although on some older ships the spark equipment gradually phased out between 1927 and finally ended in 1960.

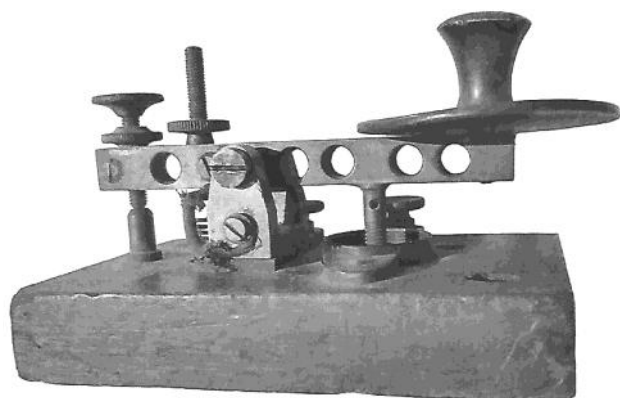
**Acknowledgements** - Tom Perera WI TP, Neal McEwen K5RW, Rus Kleinman WA5Y, Ron Ayling G3YUH, Lou Iaquinto VK3LI and Fons vanden Berghen. **ar**



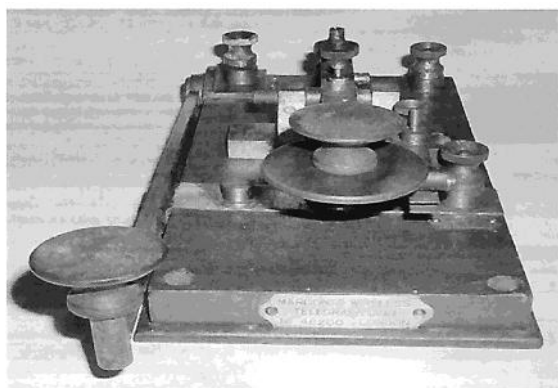
← A close-up showing both contacts of the Ducretet key in the (empty) oil cup.



↑ A G3YUH copy of the 1914 oil-break flameproof Morse key manufactured by Eugene Ducretet with the lid on the oil cup.



↑ An original 1914 Ducretet oil-break flameproof Morse key without the oil cup lid in place.



← A Marconi guillotine key as used on RMS Titanic.



↑ The G3YUH copy of the Ducretet oil-break flameproof key without the oil cup lid in place.

*Many thanks to Bill Roper, VK3BR, Editor of OTN magazine, and to Herman Willemsen VK21XV, for permission to publish this most enlightening article. Ed.*

# Adelaide Hills Amateur Radio Society Inc

## "MF Down Under"

**Doc (David Wescombe-Down, known as VK5BUG, etc) has now completed his compendium of articles and projects for the MF band.**

**Don't forget to put in your order soon - to ensure that this worthy venture is brought to the fruition it deserves.**

***Please see details below - Ed.***

The publication date of June 20, 2016 is for **"MF Down Under": An edited VK-compendium of articles and projects for the 630m & 160m bands** which is the first ever Oceania-based one-stop-reference for embarking upon MF operating, and is all-mode inclusive.

The book contains:

- 345 x A4 pages
- ISBN registration 978-0-9873638-6-2
- Wire spiral binding so it will lay flat on a desk for convenience

Nine chapters

**Chapter 1 Introduction**

**Chapter 2 Frequently Asked Questions (FAQs)**

**Chapter 3 Something about MF propagation**

**Chapter 4 Earthing and lightning protection**

**Chapter 5 Aerials for MF**

**Chapter 6 MF transmitting and receiving projects**

**Chapter 7 MF station accessories**

**Chapter 8 Portable MF operation**

**Chapter 9 MF Direction Finding: a new amateur radio horizon?**

- 44 articles and projects for 630m and 160m
- Material contributed by 15 VK authors

Contents and Index pages to facilitate finding topics of specific interest

### **Editor's Profile**

"Doc" Wescombe-Down has had professional involvement with LF (44kHz) and MF (500kHz) for more than 50 years and since 2010 operated a computer-free, classic amateur MF station on 630/160m using AM and hand-sent CW with a mixture of homebrew and ex-marine equipment. He has been a Morse code telegraphist since 1964, serving 19 years at sea and in shore wireless telegraphy stations including VHM and VHK of the Royal Australian Navy, while completing First Class Commercial Operator, Broadcast Operator and General Operator Certificates of proficiency through full-time external training at the Marconi School of Wireless in Sydney.

In 1971 Doc was invited to train in Hawaii for 42wpm Vibroplex "Bug" key manual sending and telegraphic typewriter reception in preparation for covert LF/MF deception-decoy telegraphic seagoing duties, including icebreaker service in both polar regions, and for which he undertook Polar training in Scandinavia and New Zealand. Pre-selection criteria for invitation into that professional development programme included 35wpm sending and receiving ability, reading-writing competence in a European language other than English, military E-7 rank or higher at the time of training, completion of or mostly-completed First or Second Class Commercial Operator's Certificate, extensive experience with commercial MF operation, substantial seagoing service in small ships, and availability for multi-national polar oceanic service within two years from training completion.

In the late 1970s Doc was a Frequency Monitor at VNA5 Frequency Measuring Station, Somerton as part of the PMG Radio Branch, during which time he check-logged every active MF Non-Directional Beacon (NDB) in Oceania and the Pacific region.

Formerly VK4CMY, VK5HP and VK7CQ, he has authored 17 non-fiction books and many articles for AR and RSGB *RadCom* magazines, VK-QRP Club *Lo-Key* journal, AHARS and Fists Down Under newsletters, and was the first Australian amateur to attain WAC and DXCC (128/131) QRP awards from 3 watts CW on 20m. He has always designed and built his own aerials, link couplers, Cootie keys (Sideswipers) and ground mat systems.

It is intended to be a limited-run, cost-recovery legacy to amateur radio in Oceania and the retail price will be AUD\$48 plus postage satchel cost if required. Orders are currently being taken via [d.wd@bigpond.com](mailto:d.wd@bigpond.com)

## Adelaide Hills Amateur Radio Society Inc 2016 WIA AGM

From May 27, to 29, the WIA held its first AGM in VK9, that is, on Norfolk Island.

AHARS was well-represented with: Keith (VK5OQ), Jeanne (VK5JQ), Jim (VK5TR), Shirley (VK5YL), David (VK5KC), Christine (VK5CTY), Hans (VK5YX) and Lesley (VK5LOL), and Peter (VK5APR).

In addition to the usual AGM business, sight-seeing and socialising, AHARS member Keith, VK5OQ, assisted by others, created 3.4 GHz and 10 GHz distance records for a VK9 entity.



← Keith operating  
on 10 GHz, assisted  
by AR Editor, Peter  
Freeman, VK3PF.

AHARS strongman,  
Hans, VK5YX,  
holding up a →  
Norfolk Island pine.



Many thanks to Keith Gooley for creating this special report for our newsletter.

*NB: This report is continued in the on-line Supplement to this newsletter.*

### WICEN Officer Holders For 2016/17

- President, Nic McLean, VK5ZAT 0417 822728
- Vice President, Trevor Quick, VK5ATQ
- Treasurer, Louis Coleshill, VK5VFO
- Secretary, Andrew Macmichael, VK5FMAC  
[secretary@sa.wicen.org.au](mailto:secretary@sa.wicen.org.au), 0403 791488
- Committee, Charlie McEachern, VK5KDK
- Committee, Arno Attema, VK5ZAR



### FUTURE EVENTS

**RALLY SA 2016.** 9 to 11 September.

Please register on the Rally SA website at

<http://lightforcerrallysa.com.au/> .

Further information can be obtained by emailing Charlie VK5KDK)

on [vk5kdk@wia.org.au](mailto:vk5kdk@wia.org.au)



*Another event for which WICEN needs volunteers is:*

**SAERA State Championship** - 24 hour horse endurance event. 1<sup>st</sup> to 3<sup>rd</sup> July 2016.

AIM: To provide a safety radio network from Friday evening to Saturday night, by tracking horse rider numbers as they pass through checkpoints.

SAERA is providing Friday night tea and facilities for our radio base at Wirrina.

#### Community Events supported by WICEN SA

During the year, the Committee is requested to support Community Events. The decision has been made to regularly support 'free of charge' with equipment and expertise.

- ANZAC Vigil in the South at Morphett Vale
- Cancer Council SA, Relay for Life, Central Region at Wayville Showgrounds

#### Contact WICEN:

For full details of these events, and other WICEN matters, check out the WICEN website, or go to the *AHARS June on-line version* of this newsletter. Otherwise, contact The Secretary, vide above.

# Adelaide Hills Amateur Radio Society Inc



## Club Projects

HF/VHF Antennalyser kits.  
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](mailto: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 Controller: Jim (VK5TR);  
Dean (VK5LB); or Barry (VK5BW)  
All licensed amateurs are welcome.

## VK5RAD (Crafers 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](mailto:vk5bw@wia.org.au)

## Club Contacts

**Club President** Barry Williams VK5BW  
08 8339 5683

**Vice President** Jim Tregellas VK5TR  
08 8382 0504

**Secretary** Jean Kopp VK5TSX  
08 8322 0066

**Treasurer** Peter Reichelt VK5APR  
08 8352 5904

**Licence Training** Sasi Nayar VK5SN  
0417 858 547

## Meetings & Venue

AHARS meets on the third Thursday of  
each month, commencing at 7:30 pm  
at the Blackwood Community Centre  
in Young Street, Blackwood

## Postal Address

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

The address for our website is:

[www.ahars.com.au](http://www.ahars.com.au)

Thanks to our new  
web-master Paul Simmons

## Articles For The Club Newsletter

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

Please forward directly to the Editor

- John Elliott VK5EMI phone 8278 1269

or by email (best) to [vk5emi@wia.org.au](mailto:vk5emi@wia.org.au)

Publishers - Michael & Kaye Roden VK5FMTR

## Our Next Newsletter Will Be Published In September 2016



## 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  
Ys 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 Grand Chancellor Hotel, 18 Currie 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.

# AHARS ON-LINE NEWSLETTER SUPPLEMENT

## JUNE 2016

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• <b>FROM THE BUSH.</b> A Bundy Rum fishing story.	From Queensland— where else?	3
• <b>Proposal for radio chat sessions</b>	Greg, VK5FJRH, along with TRAX FM Mid North Radio & Electronics Group, is intending to implement a talk-back radio show for AR.	4
• <b>JUNE 16th MEETING REPORT</b>	160 metre Magnetic Loop Antenna. An outline of the talk, with links to more info.	4

## ALARA

At the end of a pleasant Easter weekend at “Wombi” (“Womberoo” to some), somewhere in the Murray Mallee, Tina, VK5TMC, asked me if I could rig up a transceiver to enable her and Christine (VK5CTY), to join in the Monday night ALARA net.

It sounded a simple exercise, but took Robert (VK5ZHW) and I, some effort and inspiration— for me to extricate my rig from my vehicle, then for us to find the necessary connections and antennas to get the show on the road for the YL’s.

After some sweating and cursing (by Robert, not me, of course), the ladies got on air, and joined in with YL’s across Australia. [Ed.]



*On air.*

*3 YL’s.....*

*Christine (left), Cindy the dog (under the radio bench), and Tina, in the Easter Monday net. Yes, the dog was made an honorary YL for the occasion.*

## ALFRED TRAEGER TALK

### Alfred Traeger : Inventor and Pedal-wireless Man for Outback Australia."

Presented by the History of Science, Ideas and Technology Group, SA, at the Barr Smith Library, University of Adelaide, on May 7th, 2016. The talk was given by Dr Pauline Payne.



"Alf was born in 1895, in Victoria, and from an early age, showed a talent and enthusiasm for devising and making useful electrical devices. At the age of 12 he made a working telephone out of some kitchen cutlery, metal can lids, and other sundry items. This device connected the house with the farm workshop, which was about 50 metres away. In those days, this was a marvel to visitors, but to Alf and his family, part of the life they'd come to expect with this energetic young man in their midst.

Alf and his family moved to Balaklava in 1902. He studied Electrical Engineering at the School of Mines, working briefly with the MTT, the Post Master General's Department, as a telegraphist.

Around that time, The Reverend John Flynn was building up the Flying Doctor Service, but it was seen that it would be severely limited in its success without good communications. John met Alf somewhere along the way, and Alf set about designing and building radio sets suitable for The Outback. The limited life of batteries led to Alf designing his now famous pedal generator.

(1). Inspired by Flynn's vision, Traeger continued refining the radio equipment to make it more usable, portable and durable. He developed a transceiver, combining the transmitter and receiver into a single unit and redesigned the generator to be powered by bicycle pedals. With the generator bolted to the ground and connected to the transceiver, the operator could now generate comfortably 20 watts of power at about 300-400 volts with his feet, and leave his hands free to operate the radio itself. In November 1928, Traeger presented the new pedal-powered radio to Flynn who replied: "Go home and get your Sunday suit. I want to take a very important photograph". The photograph of Traeger operating the pedal wireless is now historically famous.

<http://www.powerhousemuseum.com/collection/database/?im=210776>

In the early days, the base stations (situated at various towns in The Outback, transmitted voice to the outback stations, which replied by Morse (CW).

One of the basic hurdles that Alf had to overcome was the design of a small generator which would create the necessary volts for a valve -powered transmitter.

At one time, there was quite a kerfuffle, as it was realised that the Outback operators has no radio licence!

Alf received an OBE in 1944, and lived until 1980, still devising new inventions.

There is a memorial to him near Balaklava...

Others at the presentation included Alf's step-sister, Susie, Bob Major, a retired geologist,

After the official talk, there was discussion re the loss of many historical museums.

((1). NB: there are some errors in the above website article; eg, "Traeger's pedals were used throughout the 1930s and by 1939 were replaced by vibrator units (correct) and later by voice-operated systems (can't see that being possible! Presumably the write meant "SSB"). Ed.

(2). A good article can be found out at (amongst others): <http://adb.anu.edu.au/biography/traeger-alfred-hermann-8839>

Club member, Daryl (VK5JDS), brought along the front panel of his Traeger Scout Transceiver, and explained his experimentations with it to a most interested audience.



Daryl explaining what he has done with his Traeger Scout transceiver.



Restored Traeger Receiver, VNJ-88, with Daryl's Traeger Scout front panel at the left. The orange reel contains the aerial wire for the transceiver.



Dressed in his Sunday best, Alf posed for John Flynn, creating an iconic image for many generations to come.

## **WICEN (From the AGM)**

### **Officer holders for 2016/17**

- President, Nic McLean, VK5ZAT = [president@sa.wicen.org.au](mailto:president@sa.wicen.org.au), 0417 822728
- Vice President, Trevor Quick, VK5ATQ = [vicepresident@sa.wicen.org.au](mailto:vicepresident@sa.wicen.org.au)
- Treasurer, Louis Coleshill, VK5VFO = [treasurer@sa.wicen.org.au](mailto:treasurer@sa.wicen.org.au)
- Secretary, Andrew Macmichael, VK5FMAC = [secretary@sa.wicen.org.au](mailto:secretary@sa.wicen.org.au), 0403 791488
- Committee, Charlie McEachern, VK5KDK = [rally@sa.wicen.org.au](mailto:rally@sa.wicen.org.au)
- Committee, Arno Attema, VK5ZAR = [vk5zar@wia.org](mailto:vk5zar@wia.org).



Thanks to Sasi Nayar (VK5SN) for the presentation on Marine Radio and SA Sea Rescue Squadron. Also thanks to Julie Macmichael, Liz McLean & Miranda McLean for providing supper. There was discussion on regular get togethers, training & newsletters. The Committee has taken note and is planning a "Welcome To" newsletter !!

### **WICEN REPORT**

The full story (3 pages), covers the following:

- EVENTS
- AGM
- Display of new WICEN gear
- ACMA regulations for use of commercial VHF frequencies.

Please click for the full story. [WICENSA Newsletter 2016 June.pdf](#)

More information can be gleaned from:

The WICEN SA website: <http://www.sa.wicen.org.au/>

The WICEN FaceBook page: <https://www.facebook.com/search/top/?q=wicen%20sa>

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From an anonymous club member:

### ***This is a true Bundy Rum Fishing Story...***

*(BTW For those who don't know, a King Brown is one of the deadliest snakes on earth. Out of the world's top 10, Australia has 5.)*

It was time-tight working 2 jobs but I finally got around to going fishing one morning in one of my dams. After a while I ran out of worms.

Then I saw a King Brown with a frog in its mouth, and frogs are good fresh-water fishing bait. Knowing the snake couldn't bite me with the frog in its mouth I grabbed it right behind the head, took the frog and put it in my bait bucket.

Now the dilemma was how to release the snake without getting bitten. I grabbed my bottle of Bundaberg rum and poured a little rum in its mouth.

The snake's eyes rolled back, and it went limp so I released it into the dam without incident, and carried on my fishing with the frog.

A little later I felt a nudge on my foot.

There was that same snake with two frogs in its mouth.

*[At first, I doubted the truthfulness of this story, but when the anonymous contributor assured me that a King Brown really can hold two frogs in its mouth, I was convinced of its veracity—Ed.]*

## **RADIO CHAT SESSIONS PROPOSAL**

AHARS club member Greg Heneker, (VK5FJRH), now living in Port Germein, has proposed to his local club (Mid North Radio & Electronics Group), the following:

"That there be an "Amateur Radio Hour", monthly, run from the FM community Station (TRAX FM)". This station is managed by the group.

He has support from the local AR club, viz., TRAX FM Mid North Radio & Electronics Group, based at Port Pirie, so it all sounds like this is a one stop shop.

The President of the group is David Carwana VK5DMC, and he seems keen to try the idea out.

I realise that the station would have limited coverage, but it would still be a good advert for our hobby.

The plan, as it is at the moment, is for the station to phone a person who has offered to be on the chat session.

If you think that you'd like to participate in a session (or two!), please let me know, and I'll pass it on to Greg.

Please also let me know of any ideas that you have in regard to the successful running of this—length of sessions, etc.

John Elliott, VK5EMI.

## **JUNE 16th MEETING REPORT : 160 metre Magnetic Loop Antenna**

Steve, VK5SFA, and Paul, VK5SL, gave an illustrated talk on their 160 metre Magnetic Loop Antenna (MLA).

Their particular design is a double turn loop, which works very well indeed, having some advantages over the traditional single-loop version.

Like all MLA's, a lot of careful work is required in the selection of parts, and the construction, but the rewards of its performance make all of that worthwhile.

A fully detailed run-down on the design, parts list, theory and construction of the antenna can be found on:

<http://members.iinet.net.au/~sadler@netspace.net.au/>

In short, the antenna is made up of one length of 23 metres, bent to form two turns of a (large) coil, plus the U turns back to the vacuum capacitor. The material is 7Ghz heliax. All joins are brazed, to minimise resistance losses (a case of "resistance is useless" - Ed).

The final product is the result of a team effort by the above gents, and based on a paper by AHARS member Leigh Turner (VK5KLT). A link to Leigh's inspirational article is in the above website.

NB: Steve has since constructed a double loop MLA for 40 metres. This unit has a diameter of 1.2 metres, compared to the 3 metres of the 160m unit briefly described above.

*[Thanks to Steve for his input into this article—Ed.]*

