Adelaide Hills Amateur Radio Society Inc - September 2015 Newsletter

Serious stuff at the Aviation Museum (see page 7)

On-line Supplement Go To Our Website: ahars.com.au

PRESIDENT'S COLUMN

Aaah - Spring ! Spring has sprung and the grass is riz, I wonder where the birdies is ? This year is flying by and we are all getting another year older as we march towards the silly season again.

The Club program this year has gone smoothly and we have been fortunate to have interesting lectures and presentations from many talented people, my thanks go to all those contributors who have made the effort

The Shack program continues and the technical sessions have been well attended, a program that hopefully will continue on into next year. We are hoping to extend the shack by adding a secure storage area at the rear, and negotiations are underway with the Girl Guides for this to happen. This will allow us to remove much of the clutter that seems to accumulate from time to time and also provide storage for our deceased estate equipment while it is being processed and tested.

Training continues with a new Foundation course to take place on the 17th & 18th of October, with exams for all levels taking place on the Sunday as usual. If you know of some one who is contemplating either a course or upgrading, please get them to contact Sasi VK5SN to book a spot, they will be most welcome.

As you read this, the recent auction of deceased estate should be almost complete, there is/was some very good gear available of near new condition, ideal for our new amateurs or anybody looking for that extra rig or two. It also is the service we provide for our members in responsibly disposing of their gear and returning those monies back to their estate and family.

The ANAN-100D SDR transceiver has raised quite a bit of interest and I know of several persons that have been swayed enough to purchase units for themselves and others that are intending to purchase these great bits of gear. Remember that Apache Labs will be attending our Buy & Sell in November, an ideal time to look at and perhaps purchase that new rig ! Bookings for tables has now commenced, so now is the time to contact Roy VK5NRG or David VK5KC for a table to trade your wares,. All the usual contributors will be there with the possible return of some vendors that missed last year.

The kits program is still ongoing, but the run of current model of kits will cease shortly as we prepare to launch the new and improved VHF version in December. Jim VK5TR/JST has really excelled himself this time and has produced a new design that will allow the unit to work on 6m and 2m, with better accuracy and simplicity. This improved unit should prove very popular, particularly with overseas customers.

I have looked at several locations for the 'Christmas Lunch' and have some menus from potential suitable venues, details of which will be presented at the next general meeting. We will be looking for volunteers to run the raffles and get suitable prizes for this event,. Please contact any member of the committee if you would like to help this year.

The repeater has been operating without problems, and we now have a set of new batteries to back up the power supply, these still need to be installed so any one who would like to help will also be welcomed.

We are still looking for a 'Web Master' to do regular updating of the website (which is still being worked on). It does not take a lot of time but needs to be on a regular basis, so if you think you would like to help out your Club with this, it also would be very much appreciated.

Cheers for now & 73 from Barry VK5BW

EDITORIAL

The past few months for me have been uber-busy, although not all of it AR ops.
With Barry, I've been rather caught up with the deceased estate of Ronald (VK5RA). I'll be glad if the planned extensions to The Shack for storage come to fruition—I know that Barry will too (It's something to do with breathing space!)

I had the pleasure of briefly getting into the Remembrance Day contest (whilst actually chasing lighthouses). I much enjoy the relaxed friendliness of most of our contests. See page 2 for my comments on QSL'ing.
Soon it will be our big Buy and Sell Day (November 1). Make sure you have plenty of money, and a bit of time to say "hello" to your radio friends on that day.
John, VK5EMI, Editor. **(--... ...--!)**

Adelaide Hills Amateur Radio Society Inc
Club Program 2015

2nd & 4th Friday	AHARS Regular Luncheon (All Welcome) - Blackwood RSL, Brighton Parade, Blackwood
2nd Saturday	Social Get-togethers Over A Cuppa At The Shack
4th Saturday	Technical Mornings At The Shack
SEPTEMBER	
Thursday 17th - 7.30pm	Bill Cowley. How To Use Cheap Dongles For SDR Monitoring - Blackwood Community Centre
Saturday 26th	Phil Storr - How To Make Your Own Printed Circuit Boards **Bookings needed**: Email either - **Roy VK5NRG** or **Barry VK5BW**. - At The Shack
OCTOBER	
Saturday 10th	Have A Play With The ANAN 100-D SDR Transceiver - At The Shack
Thursday 15th - 7.30pm	Monthly Meeting (Details TBA) - Blackwood Community Centre
Saturday 17th & Sunday 18th	Foundation Training And Upgrade Exams Contact Sasi (VK5SN): Email **sasi.nayar@sa.gov.au** - At The Shack
Saturday 24th	Technical Morning (Details TBA) - At The Shack
NOVEMBER - **Sunday 1st**	**BUY & SELL** Contact **Roy VK5NRG** or **David VK5KC** For A Table - Goodwood Community Centre
Thursday 19th - 7.30pm	Monthly Meeting (Details TBA) - Blackwood Community Centre
DECEMBER	Christmas Luncheon (Details TBA)

QSL Corner

INCOMING: In late August, I received 57 cards from the VK5 Incoming QSL Bureau. Cards were received for: VK5's AJF, BAR (that's us), CB, CWL (Cape Willoughby Lighthouse), CYM, DWD/m, MGY (Titanic), QH (SK), SX, TD, TL, TT, XM, YL, and ZKT.

I prefer to hand out cards at meetings, luncheons, etc. If you can't make it to collect them within a reasonable time, please contact me.

If you have cards to post out via the Bureau, please post them direct to : WIA Buro, PO BOX 3073, Teralba NSW 2284. I can send them on myself, but it's quicker to send them direct to The Bureau.

These days, I think that most AHARS operators use eQSL instead of cards.

It's a good system, and easy to use. I recommend it - yes, even this OM uses it. I keep an electronic log, where I note all requests for QSO confirmations, but I also keep the image of the "card" of each QSO registered in eQSL against my callsign. That facility is available in eQSL.

Once the "card" is displayed, right click on it, and use "Save Image As".

John, AHARS QSL Manager.

WICEN SA

RALLY SA is coming up soon!

If you haven't yet registered, now is the time, and here is the link:
http://scoutsrallysa.com.au/news/ and click on the Volunteers tab.
More information on WICEN SA is on their Facebook pages
Lots of interesting photos and info on :
https://www.facebook.com/groups/170093383089448/photos/ and
https://www.facebook.com/groups/170093383089448/members/

AN AERIAL ENGAGEMENT:

When I was approached by Ted, VK5KBM, to assist in putting one of the legs of his new 80 metre dipole in place, I said "yes", of course, and found it to be quite a challenge (of course!).
With my agile son, James, we lifted and dragged, the wire, bit by bit, over his TV antenna (aerial to some), and over his high and aerial-unfriendly roof.
(I'm told that people of my age shouldn't climb onto roofs, but duty (or was it idiocy?) called, and we finally got it up.)
Thanks to Ted for the nice afternoon tea after.
PS: The young fella has just had his 91st - Happy Birthday, Ted.

FOR SALE

1. Honda EM1000F low noise, portable generator set, 240V & 12V, fully serviced (sump and carby emptied & cleaned, electrical output checked etc) & ready to go. Suits field days & other portable operation, camping etc & will run up to about 900W-worth of appliances. Best to operate these units with at least 60W load whenever in operation. IN GWO & may be collected from Doc VK5BUG QTH (Westbourne Park) for $500 as is, where is.

2. WORK BENCH - RADIO AND ELECTRICAL (Ex VK5RG)
Size = 1800L x 750W x 920H in mms. Centre top plate is lift out sheet steel (as for a solid barbecue plate!) as an earthed radio maintenance construction work platform - 760 x 600 x 12.5mm & VERY heavy!!
For sale by Live Estate tender on behalf of Rob Gurr VK5RG. Bench is being stored @ VK5BUG Doc's, in Westbourne Park. Collection will require advance notice plus purchaser bringing 2 or 3 fit & able bodied persons to trailer-load it.
Contact d.wd@bigpond.com **or 8271 3066.**
(Doc, VK5BUG)

Photo shows only part of the bench.
More photos available upon request - Ed.

Georg Simon Ohm

A man of great resistance ...

By Greg Baker, Braidwood, NSW

March 16, 1992, will mark the202nd anniversary of the birth of Georg Simon Ohm, the man who defined the theories which led to Ohm's Law. Greg Baker tells the story of the man and his struggle to have his ideas accepted.

These days Ohm's Law is easy to understand and is Brushed aside, almost as a self-evident truth, in the first half hour of a radio or electronics course. But, for Georg Simon Ohm, the man who discovered the fundamental relationship between voltage (E), current (I) and resistance (R) that E = I X R, it was neither self- evident nor a half-hour exercise. And once he had completed his experiments it was a larger problem to convince others and to have his methods accepted.

The eldest of seven children, Ohm was born just over 200 years ago on March 16,1789 at Erlangen, 10 kilometres north of Nuremburg in Bavaria, southern Germany. Ohm's father was a self-taught master mechanic earning his living as a locksmith. He was an avid reader of philosophy and mathematics and encouraged Georg and his brother Martin in the study of mathematics, physics, chemistry and philosophy.

The Ohm brothers showed considerable mathematical aptitude and were likened to the famous Bernoulii brothers. In addition, Ohm's father instructed Georg in the techniques of mechanics and toolmaking which was to later stand Ohm in good stead.

In 1805 Georg entered the University of Erlangen. After an interruption when he taught mathematics as a private tutor in Switzerland, he settled in Neuchatel in 1809 to continue privately with his university studies. In 1811 he returned to Erlangen and received his Ph D in mathematics the same year. His heart was set on an academic career but he had to make do with a range of teaching positions until he was made head of the Department of Mathematics and Physics at the Polytechnic Institute in Cologne in 1817.

By the early 1820s he had decided to make a further push for advancement on the academic ladder. To do this he needed to produce some important research work so he turned his hand to physics. This was the age of electrical exploration. Earlier, Volta had built his Voltaic pile and, in 1820, the Danish physicist Oersted had shown how a current flowing in a conductor would deflect a compass needle. So Georg turned his mind to electrical phenomena.

His first experiments were on the principle which bears his name: the effect of running a current through different conductors. His approach was experimental. He had read Fourier's discoveries that heat flow between two points in any material depended on the temperature difference between those points and the heat conducting properties of the material. He reasoned that there could be an analogy to current flow. Using a Voltaic pile and wires of different lengths and cross-sections which he had drawn himself using the mechanical lessons from his father, he began to experiment with current flow.

His first published formula connecting resistance, current and voltage was wrong, but he soon realised his error and the problems with the Voltaic pile. The Voltaic pile not only had a high internal resistance, it discharged quickly and the terminal voltage declined during the course of the experiment.

Georg was able to allow fort his by bracketing each test wire with two readings of a standard control wire. This produced the correct result but he eventually decided to repeat the experiments with Seebeck's thermocouple. This device makes use of what is now known as the 'Seebeck effect'. This says that if the two ends of a conductor are maintained at different temperatures and these are electrically connected to two conductors of another material, a potential difference will develop between the two ends. This potential difference is not large but is dependent only on the two materials and on the temperature difference.

Using copper and bismuth as the two materials, and with one junction in ice and the other in boiling water, Ohm had a constant potential difference to work with. In modern terms what he had was a simple circuit with his test wires in series with the thermocouple. To measure the current he suspended a magnetic needle adjacent to the test wire and noted the deflections against a circular scale he had graduated himself. Using wires of different lengths as the test resistances R, he experimentally derived the formula I = **E/(RI** + R), where **RI** is the cell internal resistance or, in Ohm's terms, X = **a/(b+x)** where "X is the intensity of the magnetic effect of the conductor whose length is x; a and b represent constant quantities depending upon the exciting force, and the resistance to conductivity of the other parts of the circuit."

In 1826 he published this experimentally-derived relationship in the widely-circulated journal of the physicist Schweigger: Journal for Chemistry and Physics.

This was interesting for two reasons. The first is that it is what philosophers of science would call an inductively- derived law. Inductionists argue that laws of science can be derived from a wide observation of natural phenomena. Ohm did this, finding a perfect agreement between his formula and experiments with the variables extended in all directions.

Secondly, because Georg was trained by his father in philosophy and took a keen interest in philosophy, he would have been aware of the philosophical objections to inductivist science. Among other things these objections include the fact that inductivists can never be sure, without prior theoretical guidance, that their experiments are sufficiently wide to cover all possible cases. Simple enumeration of experimental results need not necessarily give a universally- applicable law. Philosopher **David Hume** (1711-1776), for example, had shown that induction by simple enumeration is not a valid form of argument. Ohm would have been aware of this, even if the then influential German philosophers Kant and Hegel did not agree with Hume's reasoning.

In order to correct his problem and to follow up parallels between current flow and heat flow, he set about putting his discovery on a more sound footing. To do this he developed a mathematical theory of current flow in a conductor based on three fundamental laws. Unfortunately, he did not make clear in this theory its basis in his earlier experimental work.

In 1827 he published this in his best-known work *The Galvanic Circuit Investigated Mathematically.*

This was used then, and for well over 100 years after, as a document showing that Ohm had derived and proven his law from theoretical assumptions and not from experiment.

This was clearly untrue, and Ohm was up against other problems too. While his journal papers were widely read and followed up by the younger scientists within Germany, it was a time in that country when the philosophy of Hegel and Kant and the non-mathematical approach to science still held sway amongst those in established positions. And it was those in established positions who effectively controlled academic postings.

Another problem Ohm was up against was the conceptual one which his work precipitated. Until then, while it was known separately that cell terminal voltages differed depending on the cell and that there was current flow in conductors connected to those cells, no-one had ever connected the two and showed they were inter-related.

Ohm's Law, of course, does this, but that was a giant conceptual step needed for scientists of the day. This for some was difficult and added to his problems in having his work accepted.

His work did not lead to the academic advancement that Georg had hoped for. Indeed he received so much criticism that he was forced to resign his position. For six years he lived in poverty until 1833 when he received an appointment at the Polytechnic School in Nuremburg. In 1835 he assumed in addition the chair of mathematics at the University of Erlangen.

His work was not widely known outside Germany until 1841 when he was granted the Copley medal by the Royal Society in London. In 1842 he was made a member of the Royal Society.

From then on Ohm's fortunes began to improve, but he was growing old and unwell and his sense of duty meant he tired himself fulfilling his teaching obligations and producing a physics text book.

He was appointed full professor of physics at the University of Munich in 1849 but by 1854 he was dead.

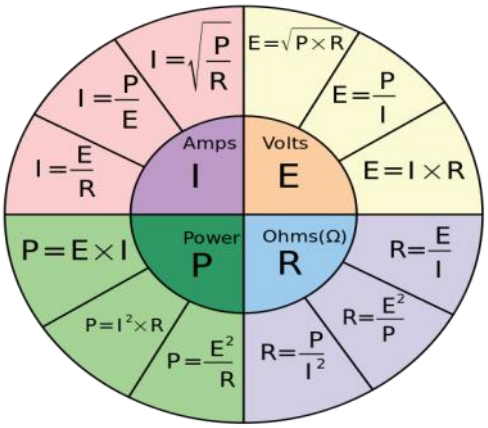
His work was finally recognised by the 1881 naming by the Paris International Electrical Congress of the unit of resistance as the **ohm** (11) and this is still used today as the SI unit of resistance.

Next time you calculate a resistance, current flow or voltage using Ohm's Law, spare a thought fort he man who gave it to us. It was a struggle, but he got there …

EDITOR'S NOTE: Reproduced from Amateur Radio Action magazine, Vol 14, No 10. Date approx 1991.
I have been unable to locate the author. If he was a licensed radio amateur, then his licence has expired, or he has become an SK.
I thank him in his unknown situation for a well-written and researched article.
Any person who knows of this gent is encouraged to contact me . I trust that he will be pleased that I've found it fit to republish - Ed.

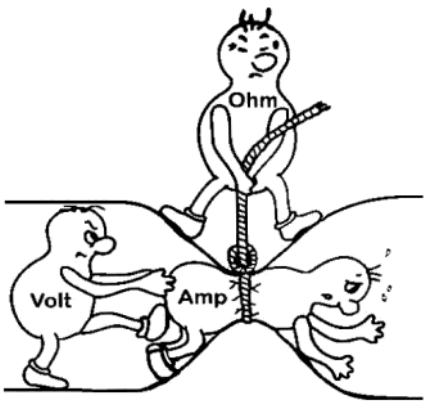
OHM'S LAW PIE CHART.

From: **https://commons.wikimedia.org/wiki/File:Ohm%27s_Law_Pie_chart.svg**



◄This clever chart links all of the electrical elements relating to Ohm's Law.
Author: Matt Rider,
13 August 2012 .

►A less technical, but eminently explanatory diagram, of how Resistance affects Current.



CONTESTING MATTERS

...wherein The Doc waxes lyrically about the joys of Contesting, etc...

From: David Wescombe-Down (VK5BUG)
To: John Elliott (VK5EMI). July 22, 2015.

Subject: 2014 Oceania CW DX Contest results.

"Yes, 2015 pts from 3W output on 40m in 2014"
(Certificate First Place Australia, Oceania ▶)

"I Just made 29 contacts for 110pts in last weekend's Trans Tasman 6-hour 160m CW High Power section. I have been actively contesting since 1975 but have never done a HP category contest participation before.

Win, lose or draw it is all good fun & helps me test out my aerials and radial system efficiencies on air - I don't use an analyser or any instrument other than a GDO & SWR/Pwr meter.

International & major national contests results deserve publicity in my opinion, since we compare our stations & operator efficiencies against Oceania & the world.

AHARS does not appear to have an aggressive contesting history to date...unlike Elizabeth, Geelong etc clubs. Andrew VK5CV did last year's Trans Tasman 160m Phone I believe (fifth place 111 pts) but I don't know who else did what.

The contesting culture may not have ever been encouraged because of a paucity of "contesting leadership" within the Society...you would know that history better than I as I only came on the AHARS scene when Geoff (VK5TY) was @ the helm...

If members can be encouraged to submit their contest activity to me, I am happy to prepare a "Contest Corner" for the Newsletter...for me, it is about sharing my passion for that aspect of the hobby... Cheers Doc.

USE OF THE WORD "AERIAL"

Having Australian Defence Force and Marconi School of Wireless professional training backgrounds, and thus being a 50-year user of the term "aerial" as opposed to "antenna", I retrieved the following item from 26 July 2015 RAN Communications Branch website:

"From Jeff Sykes (**http://www.godfreydykes.info/**) -

The word "antenna" was never used by the British, the rationale being "Get it right!" A device that emits and receives radio waves is an A E R I A L - full stop.

If you were a German or a French person you would say ANTENNE; if a Spaniard, ANTENA (one letter 'n') and an Italian ANTENA. Marconi, an Italian, is known as the father of communications, but, in the Royal Navy, Admiral of the Fleet H.B. Jackson (then Captain Jackson RN) had as much to do with radio communication as did Marconi, at least in the embryonic days of the late 1890s.

Unfortunately for us, our American friends copied the Italians but we Brits say AERIAL.

This paragraph is taken from Chapter XVI of the Royal Navy Wireless Telegraphy Manual dated 1920.

Given that I am a derivative British subject and in no way American, AERIAL is my natural option. The two terms have become somewhat blurred & as long as we all know what it is we are talking about, either term "works" in my opinion.

However, further evidence of severe molestation of the English language and grammar may be endorsed by listening to any sports commentator and a number of newsreaders from today.

Australians have become very adept at applying their laziness to what is said and what is written, although the digital age is rapidly removing both those skills from society anyway.

regards de Doc/VK5BUG

Adelaide Hills Amateur Radio Society Inc
AVIATION MUSEUM CLUB VISIT

On June the 18th, about AHARS members and friends and family visited this truly excellent museum at Port Adelaide.

The museum is run by volunteers, including AHARS' members Barry Williams, Geoff Southby, Jean and Rod Kopp, and Robin Devore. Thanks to them and all the other volunteers who do such a great job. Much restoration work is done there. The museum also has a library, shop, and is home to VK5AIR, a club station run by Stephen Baker, VK5UQ. Air cadets are encouraged to study for their Foundation Licences. Perhaps the Piece de Resistance is the F111 bomber. AHARS is fortunate in having a few ex-RAAF people with a good knowledge of aircraft operations with that aircraft, and some of the others on display.

Museum guide Russell O'Brien, VK5OB , showing one of the AHARS' groups around.

Some of us remember actually travelling in some of the passenger aircraft seen here!

In the Restoration Hangar, where dead aircraft are brought back to life.
At left is a Sea Venom,
an early carrier-based jet fighter.

Mark, VK5AQV, standing by an Ikara missile, a small missile which carried an anti-submarine torpedo. The missile was developed here in Adelaide, at our DSTO facility.
Mark, and fellow AHARS member, Jim, VK5TR, both had a hand in the project.

Retired fighter pilot ace, John, (VK5EMI) at the controls of the F111.
"Is the accelerator the left or right pedal?"

The F111 in its recumbent glory.

Adelaide Hills Amateur Radio Society Inc

GENERAL INFORMATION, NOTICES & CLUB CONTACTS

Club Projects

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

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

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 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 MHhz.
There are also EchoLink skeds.

CLUB CONTACTS

Club President VK5KBW	Barry Williams 08 8339 5683
Vice President VK5PAS	Paul Simmonds 08 8391 2397
Secretary VK5TSX	Jean Kopp 08 8322 0066
Treasurer VK5APR	Peter Reichelt 08 8352 5904
Licence Training VK5SN	Sasi Nayar See Opposite

Meetings & Venue

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

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 Simmonds,
our new 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 directly to the
Editor- John Elliott VK5EMI
phone 8278 1269 or by email (best)
to vk5emi@wia.org.au
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Michael & Kaye Roden VK5FMTR
email - visit01@bigpond.net.au

Our Next Newsletter Will Be Published In December 2015

"A Multi-Frequency High Frequency Antenna" **By Rob Gurr, VK5RG.**

During my early days with the Radio monitoring service, at Somerton, South Australia, I encountered a long wire antenna, set up as an Inverted "V" with the a 400/600 ohm termination, and fed from the equipment end, with a similar 400/600 ohm termination.

It had been used for a transmitting antenna, and used occasionally as a receiver antenna. It had a standard 400/600 ohm termination of obviously PMG manufacture, grounding the distant point, and fed from a 400/600 ohm equipment source. I queried its purpose, and found it had been erected during World War 2, as a emergency system, to give telegraphic communication to South Australia, should the land line system, be destroyed by enemy action. There was a land line direct from the Monitoring Station, to the Central Telegraph Office, in the Adelaide GPO.

Its secondary purpose was to provide a directional antenna for reception of outback stations located to the East and West of Adelaide, to ensure no invaders would be using these stations to make contact with their leaders aboard ships, submarines, aircraft etc.

A third purpose was to provide a direct reception of Radio Australia and BBC transmissions, should there be land line failures, that would strongly affect the local news service, during WW2.

There was little literature about the whole set up, instructions and circuit diagrams were suitably locked away for some considerable time after the war.

I later found the use of these Inverted antennas installed at Australian Antarctic Bases, including Heard and Macquarie Island. The terminations were simply, a bank of carbon filament lamps, with a total impedance of 400/600 ohms.

When working in Papua New Guinea, in later years, I observed similar antennas of the same design at remote locations in that country. I actually Engineered one for work at the local Monitoring Station in Port Moresby, pointing to the North, for frequency checking within the (PNG) Territory.

Following extensive enquiries from ex-WW2 operators, I realised the design was most suitable for easy installation, with a minimum of additional accessories, for operational use by invading troops immediately after a suitable site had been identified. None of my informants were able to help with the theory of the system, usually pre-occupied with the urgent need to assemble, the one and only antenna mast, and some terminating posts, that would give moderate gain and directivity, over a wide frequency range. The masts were invariably from slotted sections of Kelly and Lewis construction, usually to a height of over 20 metres.

So much so, but whose design was it! I examined various aspects of the relationship to Rhombics, Travelling Wave Antennas, the Baldock System, all of which related, but not in the configuration I had witnessed in the above examples.

Only recently, I came on the "Bruce" Inverted "V" and Horizontal Diamond Aerial. It was hidden, in my old reliable "Admiralty Handbook of Wireless Telegraphy Vol.2 -Section 'R'". I had it on my bookshelf for the last 70 years!.

First proposed by Mr. E Bruce, of the Bell Telephone Laboratories, in 1931.

Details with academic descriptions, are described in the Section "R" of the 1938 Edition of the "Admiralty Handbook of Wireless Telegraphy".

In practical dimensions, it is a typically a 70 meter terminated long wire, with the supporting pole at 20 metres in the middle. The termination is 400/600 ohms and feed is also 400/600 ohms from the driven end.

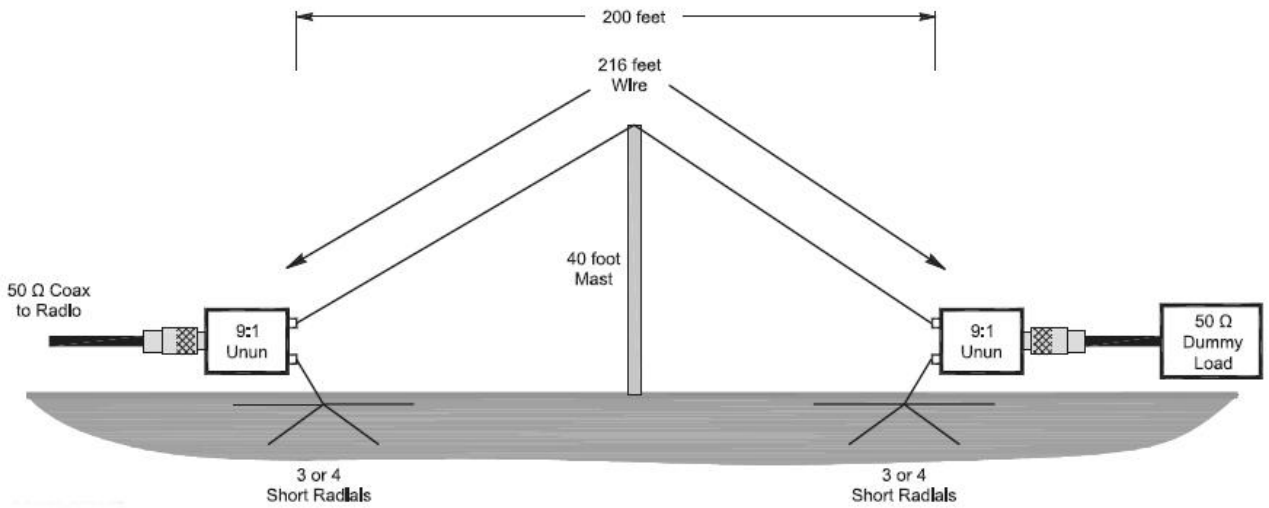
I have seen the construction previously marketed by Barker and Williamson, in QST..

One was apparently installed on the "Queen Mary" as a ship station!

One in my own Adelaide back yard, performed extremely well over many years. This arrangement was suitably modified for 50 ohm, coaxial cable and Dummy Load.

(Cont……)

Multi-Frequency High Frequency Antenna



EDITOR'S NOTES:
Thanks to Rob for digging deep enough to unearth the origins of this useful antenna.
Conversion to Metric measurements:
If, like me , you prefer to work in Metric, here are the conversions:
40 ft = 12.2m 200 ft = 61.0m 216 ft = 65.8 m (Nominally 70m).

Secret Life Of Machines - The Radio (Full Length) : By Carl Lewis
https://www.youtube.com/watch?v=2roG4jIjvEk
25 minutes. Well-presented, and entertaining. For all levels of radio understanding.
(Some interesting comments about Marconi and Tesla in the blog accompanying this.)
Many other good videos in this "Secret Life of…" series.

WHO ARE THEY?

Kaye and Michael Roden(VK5FMTR).
This industrious couple publishes the hard copy version of our quarterly newsletter.

Sue (VK5AYL) and Richard Southcott (VK5ZNC). Sue and Richard aren't seen so much around AHARS, these days, but keep busy with their business at Marleston.