

IARS Propagator

The monthly newsletter of the Illawarra Amateur Radio Society Inc.
(IARS)

Meetings are held on the second Tuesday each month (except January) at 7:30pm in the State Emergency Services building Montague Street North Wollongong

VISITORS ARE MOST WELCOME

Late Issue Meeting on tonight!!(Tuesday)

Editorial

The response I got from the questions in last months Propagator was phenomenal. There was not one criticism on how I was running the propagator so I suppose that gives me free reign to do what I like (*You had it any way....Ps I wonder if the readers have realised that the editor shouldn't make comments in his own column.... it's a bit like talking to oneself....Hey that's right... I admit itwe all have our little idiosyncrasies... but some of us have more than others.....Ed*)

Rob VK2MT needs a hand with the installation of the new paket network in the Illawarra area. This will involve the conversion and installation of about 8 commercial crystal locked radios on all the different links proposed. With Robs time being stretched with the upgrading, and maintenance of the existing voice systems we need a few more participants to help with the packet system, so how about it?

There will be a Amateur Radio Course of some description running in the Illawarra. The Tech College course that we had given up on may still run. So there will either be this course, or a course of video tapes by the Club to fill this need..... so stay tuned.

cheers.....Ken VK2KWG.

Coming Events

May Packet Night

June Mini Auction .

July Annual General Meeting. Which job will you be taking on next year?

Opinions expressed herein are not necessarily those held by the editor, committee, or members generally

NEWTEK ELECTRONICS

*** New Location ***

JUST UP THE ROAD FROM THE BOTTOM
ROUND ABOUT IN KEIRA ST.
(SWAN ST END)

Reseller for:- Altronics, Arista, Jacar, Rod
Irving

Stockist of:- Alarm accessories, UHF
antennae, tools, computer
accessories, test equipment, cables,
R.F. sprays, and electrical
components for the professional,
Amateur and Hobbyist.

Call in and see jack at:-
348 Keira St. Wollongong
Phone and Fax 271620

If we haven't got it
we'll be happy to get it in.

Classifieds

For Sale

Computer

- 486SX 25
- 2 Meg ram
- CD ROM
- Sound card
- New SVGA Monitor
- 512k Video Card
- 3.5" Floppy
- 120Mb Hard Drive
- Epson LQ100 24 pin printer with cut sheet feeder.
- Mouse

\$1300 see VK2XQX

Auditor wanted

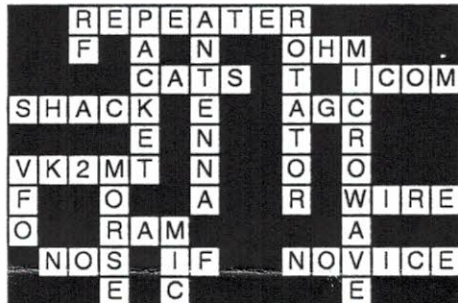
Brain Needs the services of an auditor for the clubs books.

Help Wanted

Rob VK2MT needs a hand to install the planned packet network in the Illawarra area. See Rob or any of the committee members.

Crossword

Solution to last months puzzle.



WAY BACK THENEpisode 39.

The VK2AMW Moonbounce Project -1986/87.

- Break and entry - February.
- Upgrading of antenna feed system etc.
- Further EME tests.
- Break and entry - October and December. Theft of most of equipment on site in February, resulting in termination of the Project.
- Final comments on Project.

Work continued at VK2ALU's QTH on the upgrading of the antenna feed system, during the early part of the year.

Nothing was taken during another break and entry in February, because all the "attractive" items of equipment had been removed for checking by VK2ALU during the period that the dish feed was being upgraded. It was also hoped that an adequate security system would be installed during this time.

Upgrading work carried out.

Modifications to the dish's 1296Mhz circularly polarised feed horn were completed by April. A pair of helix test antennas, one of clockwise and the other of anticlockwise polarisation - and mounted adjacent to each other in front of a common reflector - on a long pole, were made up and optimised by May. These helices were placed about 3 metres in front of the feed horn and used to optimise the degree of isolation between the horn's clockwise transmit and anticlockwise polarised receive ports.

In early June special test equipment was made up for optimising the circularity of the feed horn's radiation pattern. After this was completed it was also used to optimise the VSWR of the feedhorn.

At the same time various other items of equipment were upgraded.

Midway through June the various items were reinstalled on site by VK2's ALU, KAJ and EXN. Ground to sky noise tests were then carried out on the receiving system (5.5dB more ground noise was received than sky noise - approx. 0.75dB better than previously). The results were equivalent to improvement of system noise figure from 1.5 to 1.15dB.

Sun noise was then measured as 16dB above that of "cold sky" - some 2.5dB better than the average achieved before the equipment was upgraded.

Transmit power had also been increased from 125 to 165 watts by installation of a new low level driver stage.

Further EME tests.

EME tests were carried out on the weekend of 28-29 June, during which our own echoes were received at 3 to 4dB above noise.

Contacts were made with OK1KIR and OE9XXI on the 28th, then an intermittent contact in the centre conductor of the coax between the transmit exciter and PA resulted in failure of the 2C39 driver tube, after the replacement of which, the moon had set.

On the 29th we had a contact with HB9RM which was his first EME contact with an Australian station - and, although we did not know it at the time - the last EME contact to be made by the VK2AMW EME Project station.

The last months of the Project.

The hoped for security system had still not been installed and, as it was considered prudent to remove from site as much equipment as possible after each EME test and to reinstall it again just prior to the next test (quite a few hours work) we curtailed further operation to coincide only with special EME events.

On arrival on site prior to a projected EME test on 26 October we found that intruders had broken into the operating building again. Some minor items had been stolen and some of the cables to the dish had been ripped out. Before runs of temporary cable had been completed and equipment reinstalled the test period was over.

EME tests were planned for 23-24 November, but as VK2ALU was not able to obtain an assistant - and then it rained heavily - the operation was cancelled (a solo operation being considered not safe under such weather conditions).

Intruders caused further damage over the Christmas - New Year period, so all the equipment which was at all portable was removed from site until the next test could be organised. This proved to be rather fortunate as a site visit on 12 February revealed that major damage had occurred - ALL cables (dozens of them) between the operating building and dish had been cut off and pulled out of their underground conduits, ALL cables in the operating building had gone - and the large, heavy dish control cubicle and all of its equipment had been taken (it would have required four men and a truck to remove this!!!).

In short - the Project had been "cleaned out".

After discussion of the situation, it was regretfully decided to terminate the Project for once and all - after a period spanning almost 17 years, firstly at West Dapto then at this site west of Wollongong.

Summary of the Project and acknowledgements.

In the March 1987 Propagator VK2ALU gave a brief summary of the Project and acknowledged all the assistance received from amateurs and others - both in the Club, in Sydney, interstate and overseas - without which it would never had happened - and especially those Club members who had given so willingly their time and effort over the many years.

The final "EME Report", in the April 1987 Propagator, consisted of the draft of a summary, by

VK2ALU, of the VK2AMW EME Project which had been requested by the University of Wollongong, for its publications and records.

It would be nice to think that the dish was used later for some other University projects, but that was not to be - it was eventually cut up and sold as scrap.

All that remains are the articles in various local and overseas amateur and electronic magazines referring to the Project - and a small number of QSL cards which record the EME contacts made on 432 and 1296MHz EME - including many "firsts" in the EME field and one World Record. After all, not many stations have the "Worked All Continents" Award - not for contacts on the 70cm band anyway!!

VK2AMW had been in the early group of stations on 432MHz EME and had, over the years been regarded as one of the leading stations in this field - described as "the cutting edge of Amateur Radio", on both 432 and 1296MHz - and I guess that we can be somewhat proud of this.

Also, and I like to think partly because of the Project, the Club had flourished over these years, with members joining, not only locally but also from interstate and elsewhere - for VK2AMW had established an international reputation and had become known in "official circles" as an example of a station which had helped to increase the status of Amateur Radio.

Can we look forward to the Illawarra Amateur Radio Society establishing another such Project some time in the future? I hope so.

Lyle VK2ALU.

Available in our junk yard.....

1. Electronics bits and pieces (millions!)
2. Meters, gauges, instruments, cables, wires etc.
3. Metal sections:- copper, brass, aluminium, s/steel
4. Motors, gearboxes, pumps, assorted machinery
5. Steel sections, sheet, planks, ladders, shelving
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Our regulars swear it is
the best place for value

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PO Box 1838, Wollongong, 2500.

REPEATERS	VK2RIL	147.275	Voice/RTTY	Sublime Point
	VK2RIL	438.725	Voice/RTTY	Sublime Point
	VK2RAW	146.850	Voice	Mt. Murray
	VK2RUW	438.225	Voice	Knights Hill
	VK2RUW	029.620	Voice (off air)	Knights Hill
	VK2RUW	144.775	Packet(ROSE)	Knights Hill
	VK2AMW-1	144.625	Packet	Wollongong Uni
				(Packet Internet Gateway)

BROADCASTS - The Wireless Institute of Australia, N.S.W. Division broadcast is relayed to 146.850 and 438.225 at 10.00 am and 7.30 pm each Sunday. Local call-backs after the broadcast.

NEWS LETTER - The "PROPAGATOR" is published each month to reach all financial members in the week preceding the club meeting. Articles and letters are always welcome. Commercial advertising \$60 per ad per year, members classified free for one issue. See Ken VK2KWG for details.

MEMBERSHIP - \$20.00 P.A., concessions \$15 P.A., expiring immediately after the Annual General Meeting in July.

LAWRENCE HARGRAVE AWARD - VK stations require 10 contacts with IARS members. Overseas stations require 5 contacts. One contact with the Club station VK2AMW is suitable. Details of contacts are to be sent to the Club secretary.

COMMITTEE

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