

❖ THE PROPAGATOR ❖

Volume 5 Issue 96

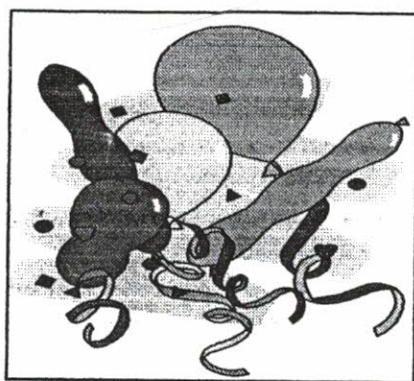
AUGUST

1996

THE ANNUAL GENERAL MEETING IS IN AUGUST

Well its that time of the year again. The AGM approaches, where has the year gone. This also means that the election of club office bearers is upon us. Has it really been a year? This was my first go at the Presidency of the club and I have enjoyed it thoroughly.

At the first committee meeting that I attended as president, I said that we have to put the IARS back on the map so to speak. I wanted the Illawarra Amateur Radio Society to be talked about. The best way I could see to do that was through our repeater systems. Even with more problems than a mathematics book, I know that we have achieved that goal through the installation of 146.850 at Bulli Tops. In my opinion, this is the best 2m repeater on the east coast. As I type this is, it is all but finalised licensing wise, giving coverage from Newcastle in the north, Bega in the south, Orange in the west, Canberra and even to a guy hand held on his farm in Cessnock. We should all be very proud of this repeater and of those who put the effort in to make it a reality. A special thanks to Mr repeater himself Rob VK2MT for



OLD AMATUERS NEVER
DIE, THEY JUST GET
LONGER DX

his tireless efforts and numerous late nights to get the system up and running as well as keeping the existing systems on the air. I would also like to thank all the other members involved in the many site visits to keep our systems running.

I would also like to thank Rob in his capacity as Secretary for his terrific job throughout the year. We can't forget the excellent job done by the fella with polyhats, Brian VK2UBF. Brian has been the Treasurer since Dale was unable to continue in the position, as well as Canteen guy, call back guru after the Sunday WIA broadcasts and also as net controller for the Monday night Havachat net.

DON'T FORGET THE AUCTION AFTER THE AGM

This from a guy who was not an amateur and at that stage not even a member of the club. Cheers Mick.

Unfortunately Michael was unable to continue with the propagator due to work commitments being put onto Tuesday evenings. The Propagator was then taken over by myself and I have to tell you that I had to beat the others off with a stick to keep the job, or were they trying to beat me with a stick. Anyway, I've had fun doing it. The production has certainly changed in 5 years since the last time I did it.

Most of all I would like you the members who through your support throughout the year via auctions and video nights and attending of meetings, I hope you had an enjoyable year.

I can't go without telling you that your next years fees are due at the end of the AGM.

Cheers

Simon VK2XQX

TREASURERS REPORT

This report covers the financial year July 1995 to 30th June 1996. The report will be given in full by me at the AGM on 13/08/96.

The opening balance for July 1995 was \$811.65.

Income for the year ended June 30th 1996 came under the following headings:

MEMBERSHIP

RAFFLE

DONATIONS

ADVERTISING

INTEREST ON ACCOUNT

GOODS SOLD BY THE CLUB

AUCTIONS

Total outgoings for the year ended June 30th 1996 came under the following headings:

REPEATERS

POSTAGE OF PROPAGATOR

AUCTION PAY OUTS

PURCHASE OF GOOD FOR RE SALE

SITE FEES (SUBLIME AND MADDENS)

MISC EXPENSES.

LICENCE FEES (SMA FEES ETC)

(Actual figures have not been included at this stage as the propagator goes to other places apart from the members. actual figures will be presented by Brian at the AGM in August.ED.)

Hello fellow club members. As you will hear at the AGM, we have had a good year financially.

I hope that somebody will take over the treasurers position at the AGM, as I have enjoyed the 3 years that I have held the position, but I feel its time to let someone have a go. I will still be around doing something for the club.

I would like some more people to come onto the ""HAVA CHAT NET"" Monday nights around 7.30pm, so why not call in and ""HAVA CHAT"".

CALLBACK REPORT

Sunday callbacks have been great. More and more VK's are call back after the WIA Broadcast than in quite some time. This reminds to ask you all to speak more slowly- when calling in as I cannot write so fast, as we get around 18-20 callbacks in the morning session. Sometimes its hard to get all the calls down. I will still be doing call backs in the new financial years. Hope to see many members at the AGM.

BRIAN VK2UBF.

□

Just a thought on call backs from me VK2XQX;

A number of stations get the big hoof on them in the initial rush to get in when call backs start, so as well as calling the boys down South (146.700) in separately, perhaps we could call stations in from North of Wollongong first, then West then South. Let Brian know what you think at the AGM.

**THE AGM
MEANS THE
ELECTION OF
NEW OFFICERS
OF THE CLUB.
WHY NOT
STAND FOR A
POSITION AND
BE A PART OF
DIRECTING THE
CLUB INTO THE
FUTURE. YOU
MIGHT EVEN
HAVE SOME FUN**

******IMPORTANT NOTICE TO ALL MEMBERS******

MEMBERSHIP FEES ARE DUE TO BE PAID BY AUGUST MEETING.
KINDLY FILL OUT BELOW AND BRING TO NEXT MEETING OR
MAIL TO:

THE TREASURER
I.A.R.S.
PO BOX 1838
WOLLONGONG NSW 2500

NAME:.....

ADDRESS.....

SUBURB.....

POST CODE.....

CALL:VK

FULL MEMBERSHIP \$20 PA.
CONCESSIONS \$15 PA.

UNPAID MEMBERS WILL CEASE TO RECEIVE THE PROPAGATOR .

ARE YOU A MEMBER OF W.I.A YES NO?
THIS INFORMATION IS TO BE SENT TO W.I.A. BY NEXT COMMITTEE.

PLEASE RETURN THIS FORM WITH YOUR REMITTANCE AS THIS IS FOR
OUR CLUB RECORDS.

TREASURER

RECEIPT NUMBER:_____

ANNUAL REPEATER REPORT

(August '95 to July '96)

Well another Annual Repeater Report has come around. It's hard to believe another year has come & gone & the AGM is upon us. The years certainly seem to go faster & faster.

Since the above paragraph was typed, I went to review the last 12 months of Rptr Reports. Out of curiosity of what had been achieved in the year before, I went back another year & then another. I was rather surprised to find it's now been 6 years since I first

started writing Reports, when I took over as Rptr Officer from John (XGJ) & previous to him, Graeme (CAG). Where has the time gone?

Anyway, reading last year's Annual Report, I guess the thing that stood out the most was unfortunately not about Rptrs, but that Editor Ken & myself were, (as Ken so well phrased it) having "ideological differences" about certain information I felt should

be offered to the members, for their own judgement. The problem is now as the saying goes - "water under the bridge" as the "problem" is no longer a member of the IARS. (Oops did I type that? Sorry I couldn't help myself, but it felt good & besides with the

benefit of hindsight that time provides, it all appears to have been true.) Enough said, let's press on...

Since July of last year, the IARS has gained access to 2 of the best Rptr sites in the Illawarra, namely Saddleback Mtn & Maddens Plains. We have seen VK2RIS 6975 & VK2RSM 9275 both been established in this time. Even a Packet digipeater on 4875 is on test at the site, proving the good coverage of the site. Maddens has seen the establishment of VK2RMP (old RAW's frequency with RIL's Rptr). This system is certainly working well, (despite the insistence of one person to the opposite, who is now strangely silent).

A lot of our plans were stifled severely & had to be changed mid-stream due to the SMA's change in policy regarding Rptr/beacon/link application costs. These changes have seen these charges go from nothing up to the \$200+ region. (In a case in

Newcastle for a bunch of packet links, to over \$700!) A LOT of changes & rethinking had to be done to keep our incurred costs to a minimum. This I believe we have done rather well. What costs the IARS has had to bear have been offset by the Rptr Committee's purchase, modification & later sale of commercial gear, in fact

this income has actually greatly improved the IARS's bank balance for the last financial year (even giving Treasurer Brian something to smile about!). This extra income for the IARS is second only to the income from Membership dues for the past year.

Now for the Rptr sites in particular. To try make things as clear as possible, I'll break down each sites report into Past, Present & Future.

VK2RAW (Mt Murray)

Past: The original 6850 that Graeme built so many years ago & provided such excellent service has been retired. Reasons for this were as follows. Some parts of the Rptr were becoming "tired", breaking-down & were increasingly difficult to obtain replacements. Despite what some may think, the site was never that good in covering ALL of W'gong, especially the northern suburbs. We were also (for many reasons) unable to get 240V connected to the cubicle, which of course led to equipment restrictions for other purposes.

Present: There is no RF eqpmt at the site, only the batteries & solar panel chgr.

Future: In the next month, the 10m Rptr's RXer will be installed. The Rptr was built from a Philips FM-828 G-Band radio, that was modified

by John (AAL). (it was originally designed to operate on 43 MHz). After modification to it's new 10m frequency, the radio's RXer & TXer were then split into two units, the RXer part for Mt Murray, with the TXer part to be installed at Knights Hill. (The 10m RXed signal will also be linked through 6975 at Saddleback). A WIA link RXer will be installed on a 7 day timer circuit to turn it on for just the morning Broadcast. (The timer circuit will of course save heaps of wasted power over the rest of the week.)

Also, a 7575 digipeater is planned to be installed here. The frequency is not our first choice, but as we have the licence for this frequency, (which incidentally is costing us nothing) & because of what I said earlier about current SMA charges, we thought we may as well put something on the air.

VK2RUW (Knights Hill)

Past: 8225 Rptr (which was linked to VK2RGN Goulburn) was removed from service late last year. This was also done for many reasons, two of them as follows. Firstly, the Rptr had been suffering from a type of interference that would keep the mute open for long periods. We're not sure what the problem was, but suspect the Rptr may have had a

problem handling the high RF levels up there. Secondly, after discussions with the Central Coast Club & after gaining access to Maddens Plains, the plan was to move 8225 to Maddens to allow linking to the Gosford UHF Rptr, as well as Goulburn. (We were going to move 8725 to Knights Hill in replacement). This linking hasn't happened because of the new SMA costs & also that Central Coast have had to defer the linking down their list bit. We also found from tests we performed, that there was no link path between Maddens & Mt Gray at Goulburn. We have also had to retire the Goulburn link radio (a Philips FM-747). This was done for one reason being that these particular radios have an IF stage in the RXer on 29.8MHz. This IF stage never appreciated the installation of a 10m Rptr TXer on 29.620 MHz in the same cubicle.

Present: 8725 Rptr was placed at the site early in the year on a temporary basis. It will be removed shortly. (It was removed from Sublime Point to make way for the proposed ROSE packet system to be installed there, more info on this further down). The Rptr has had no problems while it's been enduring the 5 megawatts plus of RF up there. We have noticed a slight buzz (maybe 50Hz?) on the

output, perhaps the batteries have a problem, to be investigated shortly.

Future: 8225 Rptr to be re-installed very soon, maybe by the time you read this. The Rptr is entirely new & is now a Philips FM-828 U Band radio. Reliability has been the major consideration in it's modification for Amateur use. The new Goulburn link radio will also be a Philips FM-828 U-Band. At present both these radios are happily "talking to each other" on the bench beside me here. A DTMF Controller with Voice Ident is in the process of being built to be installed with the two U-Band 828's.

After years of waiting, Canberra's VK2RGI (8375) is now linked to VK2RGN Goulburn. (Yes Ginini is now 8375, they changed the frequency. 8525 is now at Black Mtn Tower.) This means of course that as soon as 8225 goes back on the air, we will be linked down to VK1 & beyond. On "Sunday" mornings, 8225 will Tx the VK2 Division Broadcast (received at Mt Murray) & in the evenings it will Tx the VK1 Division's Broadcast.

Also at Knights Hill the 10m Rptr's TXer will be installed. This will retransmit the received signal from Mt Murray & also from the 6975 2m Rptr at Saddleback Mtn. This will allow stations on 2m & 10m to talk to each other.

VK2RIS/VK2RSM

(Saddleback Mtn)

Past: There was no Amateur Rptrs at the site. We made enquiries, wrote letters & were subsequently given permission to install Amateur Rptrs at Saddleback.

Present: To cut a long story short (that has been documented in the last 12 month's Reports), we now have a 2m & 70cm Rptr operational from the site. Interference problems have plagued us unfortunately. We have had two problems, both being of an intermod nature, one from on-site & another from Red Rock, west of Nowra. To cut another long story short, hopefully finally fixed in the next few weeks.

Future: Improvements to coverage planned, especially to the north into W'gong. Intermod interference to be removed. 6975 linked into the 10m Rptr at Mt Murray/Knights Hill. The packet digipeater on 4875 to possibly be installed permanently.

VK2RIL (Sublime Point)

Past: 7275 Rptr was removed late last year after enduring unresolvable Pager interference from Telecom Pager TXers for over 6 years. Once again, to cut a long story short (in this case 6 years), even with the assistance of helpful SMA Officers, the

Pager interference was never fully eradicated. The intermod level generated by Telecom's W'gong Exchange Pager TXers was brought down to the legal requirement, but it was still being picked up at Sublime Point 10 klms north. (We tried 7275 at Maddens later on & it's RXer was totally saturated with Telecom Pager intermods generated from all the Sydney Pager sites that could be heard at this site.) 8725 was also removed to be placed at Maddens, but this turned out to be a problem (more on this in Maddens section). It was then temporarily installed at Knights Hill as previously mentioned.

In the meantime, the newly formed South Coast Packet Group were hoping for a site to link ROSE packet through to Hornsby from the South Coast. We offered Sublime Point, which was duly put into their signal path plan. Unfortunately, after many, many months (probably close to a year), the group has had heaps of problems & obstacles put in it's path, one of them being a previous (supposed) NTAC

Chairperson. (This problem has now also gone away.)

Present: Nothing at the site, except for the chgr & batteries. Plans are up in the air depending on the Sth Coast Packet Groups success in sorting out the many problems.

Future: Maybe a ROSE digipeater, linked to the north & south. Time will only tell on this one.

VK2RMP

(MaddensPlain)

Past: As with Saddleback, nothing was here a year ago. We made enquiries, wrote letters & were subsequently given permission to install Amateur Rptrs at the site.

Present: A 2m Rptr has since been installed. Choice of frequency was a problem. Originally was going to be 7275, but the Telecom Pager intermod made that frequency totally unusable. There were no other frequencies available in this region (we only just managed to get 6975 because the site was low in height & further south). We decided rightly (or wrongly) to use 6850 at this site. Except for a minor amount of interference from another service on site, this choice has proven to be an excellent one. Our installation (including feedline & antenna) are of excellent quality & rival & even surpass other commercial installations on site. (Yes we are proud). (Don't forget the Dick Smith donation of the dual-band base antenna). Do you realise that if we were a commercial organisation, installing a commercial grade Rptr & paying commercial rates for the site access, our 6850 Rptr

would have cost us into the 10's of thousands of dollars?

6850 is presently linked to VK2RMU (6700) at Milton/Ulladulla. This is proving to be a well used & welcome link, even though there was some early "teething" problems. Also, a link RXer is connected to 6850 to transmit the two Sunday broadcasts from the VK2 WIA. This broadcast is also fed to VK2RMU.

We were unable to install 8725 Rptr here, due to it's transmitter's multiplier stage. In the process of multiplying the X-tal frequency up to the carrier frequency, one of it's multiplier stages generates a small signal almost spot on 146.250MHz, the input frequency of the 6850 Rptr.

Future: 6850 Rptr to remain as is, no further work planned as it's presently working well. A UHF Rptr to be installed, probably on 8725. Of course for the reasons mentioned above, it can't be the "old" 8725, so another Philips FM-828 U-Band radio has been obtained to be converted/modified to be used in it's place.

Well, there we have it. A year's worth of work & effort (condensed into a couple of pages. Hopefully, before the end of the year, we will have 2 VHF rptrs, 2 UHF rptrs & one HF Rptr all operating

happily & reliably (interference-free), with some rather handy & enjoyable links. I must once again say that it's all taken much longer than we originally planned & this is due to the major rethink & redirection we had to take because of the huge SMA

costs for new licences.

As the next meeting of the IARS is the AGM, please consider taking on a position for the benefit of YOUR Club. Despite what you may think it can be rewarding & fun (plus we get chocolate biscuits at the Committee Meetings!)

Lastly, a BIG thank-you to all those who have given freely of their time in the upgrade & maintainance of the IARS's Rptrs, in particular: VK2TKE, VK2ZLJ, VK2CAG, VK2XQX, VK2XBC, VK2UBF, VK2XNH, VK2XCE, VK2AAL, VK2BIT, VK2TRB, VK2XGJ.

RoB - VK2MT.
(Repeater Officer)

□□

(The views expressed in this newsletter are not necessarily those of the club)

For Sale

A starter packet PC. This machine is an original IBM XT. It has a 20 M hard drive, 1 360K disk drive, EGA monitor, keyboard and a bonus mono monitor.

\$80.00 ono ask VK2ZLJ on 042 941690 about it.

School Visit

Hopefully by the time you read this, VK2XQX will have been to Kiera Technology High to give the student in a communication class a brief outline as to what amateur radio is about and where it fits into the communication sphere. With any luck the club will have a bit of an article in The Advertiser on the help that the club gave the high school on this matter.

JOTA

The teacher of the communication class at Kiera Technology High, Sue Boyd, is also active in the Jamberoo area with the scouting movement, and has previously enjoyed Jota outings. She would like to know if there are any amateur operators in the Albion Park, Jamberoo or Kiama areas that would be interested in organising something for Jota next. Leave

a message for her during
school hours on Ph 294644.
Sue is in the Home Economics
Dept.
Thanks in advance.

CALCULATING THE HEIGHT OF A MAST

MAST

The height of a mast may be calculated by comparing the length of it's shadow, with the shadow of a stake or post.

- Measure the length of the mast shadow on the ground.
- Put a stake in the ground and measure it's height.
- Measure the length of the stake shadow.

STAKE



$$\text{Height of mast} = \frac{\text{Length of mast shadow} \times \text{Height of stake}}{\text{Length of shadow of stake}}$$

Example : Length of mast shadow = 20 metres
Length of stake shadow = 4 metres
Height of stake = 2 metres

$$\text{Height of mast} = \frac{20 \times 2}{4} = 10 \text{ metres}$$

Jim VK2CAV

CYBERDRIVE COMPUTERS The Internet Specialists

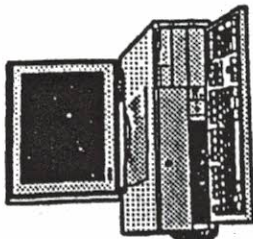
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Illawarra Amateur Radio Society Inc.

PO Box 1838

Wollongong NSW 2500

REPEATERS

VK2RMP	146.850	VOICE	MADDENS PLAINS
(planned)		(currently linked to 6700 Ulladulla)	
VK2RMP	438.225	VOICE	MADDENS PLAINS
VK2RTS	146.975	VOICE	SADDLEBACK MTN
VK2RSM	439.275	VOICE	SADDLEBACK MTN
VK2RUW	438.725	VOICE	KNIGHTS HILL
VK2AMW-1	144.625	PACKET	WOLLONGONG UNIVERSITY (THE PIG)

(Presently VK2RUW 29.620, VK2RIL Sublime Pt & VK2RAW Mt Murray are not on air)

MEMBERSHIP \$20.00 PA \$15.00 CONCESSION EXPIRING IMMEDIATELY AFTER THE ANNUAL GENERAL MEETING IN AUGUST.

COMMITTEE

PRESIDENT	VK2XQX	SIMON FERRIE	836107
VICE PRESIDENT	VK2UBF	BRIAN FARRAR	
SECRETARY	VK2MT	ROB McKNIGHT	
ASS SECRETARY		LES HOLMES	
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	VK2ZLJ	JOHN LODDING	
	VK2AGV	NED McKINTOSH	
REPEATER	VK2MT	ROB McKNIGHT	
	VK2TKE	KEN GOODHEW	
	VK2BIT	PETER WOODS	
	VK2ZLJ	JOHN LODDING	
	VK2XBC	CHRIS STEVENS	
	VK2CAG	GRAEME DOWSE	
	VK2XCE	MICHAEL SEDIKIN	
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	VK2UBF	BRIAN FARRAR	
	VK2XBC	CHRIS STEVENS	
	VK2KWY	DAVID HENDERSON	
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	VK2OB	KEITH CURLE	
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