



The PROPAGATOR



Illawarra Amateur Radio Society Inc.

The monthly newsletter of the Illawarra Amateur Radio Society Inc.
Registered by Australia Post publication number :- NBH - 1491.

Meetings are held on the second Tuesday each month (except January) at 7.30 pm in the
State Emergency Services building in Montague St, Nth Wollongong.

Visitors are most welcome.

Volume #91, Number 7

July 1991

EDITORIAL COMMENT

Greetings. This magazine you hold in your hands is the "Propagator" - the journal of the Illawarra Amateur Radio Society. As is the custom in July every year, the magazine is being sent to all licenced Amateur operators in the Illawarra area, as well as to all our members.

The reason for this is that this month, the Society holds its Annual General Meeting. You are very welcome to come, especially if you are not a member, or have never come before. The place is the SES Headquarters, Montague St, North Wollongong, at 7:30pm on July the 9th.

What goes on here? This particular meeting includes the election of office bearers for the following 12 months. However, there is always an extended talk session afterwards, which gives you a chance to meet the faces that go with all those voices that you here. So come along!!!

ANNUAL GENERAL MEETING

Remember that the next meeting is the A.G.M. This will become patently obvious by the time you have finished reading this document. Again at the end we have published a nomination form. If you want to nominate people for jobs in the Society, fill in the form and bring it with you.

Don't be afraid to come for fear you will get a job. Last time every job was filled by someone glad to have it. The only people to get stuck with a job were the Editors, and we enjoyed the year quite a lot. Many of the heavier jobs are already safely covered.

Take a look at the back page - it lists all of the job holders for the present year. Consider taking a spot - most of the further down positions are fairly easy and taking one of these gives YOU a chance to do a bit for the Society, and takes some of the work off the officials of the club.

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PRINCESS HWAY DAPTO

ROSE LIVES ON!

Tonight I was talking to a very proud, but very much worn John VK2XGJ. John informed me that ROSE was working. It was an uphill slog, with his satellite antennas being pressed into use to gain a path from his residence to VK2RSD, but in fact the old girl has finally made the grade. Congratulations John!!!

WANTED

Wanted; an ATU with built in power and VSWR meters. Must be able to handle 250watts + of HF RF.
contact Steve VK2KSP on 83307

FOR SALE

Power supply rated at 14 amp continuous with a 20 amp peak. Comes with 15 amp meter and 30 volt meter crowbar protected. Uncle Dicks Power master kit. Contact VK2KSP Steve on 833073. \$150.00

Calling All Amateurs

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There are VK2RAW and VK2RIL on 2 metres (frequency allocations are shown on the back cover), with coverages extending roughly from north of Sydney to west of Mittagong to south of Nowra. These cater for voice, radioteletype and packet transmissions.

There are also VK2RIL (which is out of action at the moment) and VK2RUW on 70 centimetres, with coverages from Sydney to further than Batemans Bay, and soon to be linked into VK2RGN at Goulburn to further increase coverage.

These repeaters are maintained and operated by the Society, for all operators in the area and beyond to use and enjoy. Our hardworking repeater committee includes people dedicated (crazy?) enough to brave the worst weather our region can throw at us to keep this equipment as available as is humanly possible.

As well as the repeaters, once a month the Society holds both a voice and a RTTY broadcast of interesting local and wider news, for the region's operators to hear and participate in.

WHAT DOES THE SOCIETY DO?

There are two sides to what the Illawarra Amateur Radio Society does. There is the "get to meet everyone" side of things, including meetings, with talks on various subjects of interest to operators. There are also weekend BBQ's and various other social events.

In addition, there are all of the services that the Society provides to the Amateurs of the region and beyond.

Firstly, the Society manages about six repeaters (depending on how you count them) in the area. There is VK2RUW on 10 metres FM, which is frequently used by people as far as North America and Asia, as well as more local operators.

Every Sunday morning and evening, the Wireless Institute of Australia broadcast is relayed onto both VK2RAW on 2 metres and VK2RUW on 10 metres, so that local operators and beyond can receive the information presented in it.

Packet radio operators would appreciate the bulletin board service, and the networking systems presently being expanded in the area. These act to increase the available coverage for this new and razor edge area of the hobby.

Another of the projects currently being worked on is the Club Station, VK2AMW, where everyone can come along and operate in a communal atmosphere and share the excitement. This is slowly but surely coming along.

most of you will know about QSL cards. The Society provides a cheap (free) method of getting your QSL cards in and out. Your cards can be sent to and received from the NSW QSL bureau by the club.

So come along and join the growing bunch of operators in the Society. Not only are they mostly harmless, some of them are amazingly smart at radio matters and I guarantee you that you will learn a thing or two.

Repeater Report for July '91

(Compiled 22/6/91)

This is my last Report before the AGM & it's also the longest due to all the happenings this month. A complete report on the Club's Rptr systems for the past year will be included next month.

VK2RIL-In 2 words - PAGER INTERFERENCE. In my last report I mentioned the rptr was occasionally retransmitting Pager transmissions. This steadily got worse with the transmissions becoming more frequent. (Every 30 seconds or so).

28/5-Went up to Sublime Point to check our gear for faults or to see if more eqpmt/antennas had been installed by our commercial neighbour, Motorola. Nothing found. Elected to leave Rptr on even though with the amount of Pager Interference, the Rptr was basically useless.

29/5-Rung Motorola & DOTC re interference. Visit arranged to meet Motorola tech at Site on 3/6.

30/5-Interference worsened. Elected to remove 7275 from site. The Rptr committee felt it was embarrassing to leave one of the Club's Repeaters transmitting all this Pager garbage. Decided if the Rptr was going to be off the air, it may as well go onto the test bench for it's annual physical. (Given a clean bill of health by "Dr Graeme" CAG).

31/5-Motorola cancelled the visit planned for the 3/6. Told me that the Sydney techs were due down soon & they'd look at our problem then. They would contact us when they were coming, probably 3 or 4/6.

**** Page 4 ****

5/6-Rung Motorola re Sydney techs coming. Left message. Call not returned.

6/6-Rung Motorola again. Left message again. Call returned that arvo. The Sydney techs were now not expected for another week, maybe... A definite date could not be given. (7275 had now been off-air for a week.) At this point I was sick of waiting for them. Rung DOTC & made an official complaint. Unfortunately, prior engagements meant that they would not be able to look at the problem till at least 11/6.

7/6-Went & got rptr from Graeme. He had checked the front end of the RXer & had found it as good as ever, which is better than commercial standards. Further discussion led to a band-pass filter being tuned-up to the input freq. This may give the RXer the extra help to stop the Pager breakthru. (Filter had an insertion loss of about 1.5 dB)

9/6-Reinstalled 7275 with filter (in pouring rain). Made no difference. Further on-site checking found that the Pager signal was definitely a "legitimate" signal appearing about 5kHz above the Rptr input freq. About 25kHz wide. Obviously no filters will help this. Even though this was a "Long Weekend", there was still heaps of interference, would be even worse come Tuesday morning. Decided once again to leave Rptr off.

11/6-Barry Sullivan from DOTC contacted me. He took note of our problem & to the apparent disinterest shown by Motorola. No one available to look at the problem till 17/6. He apologised for this but their workload is very heavy.

15/6-Because RAW had to be shut-down overnight (battery probs), it was felt RIL had to be reactivated, Pager Interference or not, so as to leave a 2 metre Rptr on-air in the area. Went to site & turned it on. Surprise, surprise, no interference!!!

16/6-Still no interference. An interesting side note here. It was reported to me that someone had heard 7275 on-air for about half an hour on the afternoon of the 13/6. If true, who turned it on? Was it being tested by someone?

17/6-No probs till about 8.15 that

again. Rung DOTC. Due to his workload, Barry had to pass our problem to Pat Seaburgh (I hope that's the right spelling). He came & got the key to the site & went up that arvo'. With his Spectrum Analyser & telescopic antenna found the offending signal about as strong as the output of the Rptr, (& he was standing beside the Rptr!). Decided to return to the site the next day with more eqpmt. That arvo' Ken TKE & Peter XHE found the Pager that was definitely causing the problem. (This pager & another transmission, possibly a commercial 2-way service, were the combination that was probably causing our problem). The Pager was on 148.185MHz.

18/6-Rung DOTC re Pager freq. This freq monitored all day. It did not go off once. Consequently when Pat went to Sublime Point, they heard no interference. They stayed there for 2½ hours. (To this day it still has not gone off & 7275 has been interference free). Further discussion with Pat found that there is NO allocation for a Pager on 148.185MHz.

So there we have it. 7275 was "interfered with" for well over a month & put off-air for 16 days due to a Pager that officially is not suppose to exist. Lots of assumptions can be made as to the source of this Pager transmission, but will not be included in this "official" report. If you know more please tell us. (The above report was made intentionally detailed, so that it could be used as a reference in the future if the interference should re-occur). Presently, 7275's RXer has 6 (yes 6) filters in its feedline. 3 Notch-type for the Rptr's diplexing, 2 more Notch-type filters for the on-site Pager providing almost 90dBd attenuation on 148.7875MHz & the "new" Band-pass filter. All up the filters would provide about

3.5 to 4.5dB total insertion loss! It's amazing the system works as well as it does.

VK2RAW-On the 2/6 two VK4's accessed 6850 & worked a couple of locals. One was in Roma, which is a good haul over a full land path.

After all the rain & cloudy conditions from 6/6 to 12/6, the voltage level of the batteries at Mt Murray got very low. This was not helped by the few Sydney stations that insisted on using the repeater night after night over the period for rather mundane (my opinion), long-overed QSO's. They all heard the very low tone of the ident, indicating the distressed nature of the batteries. It's fair enough if they didn't know what the low pitch meant, BUT they did know. They talked about it (at length) & continued on regardless. In the future, the rptr will be placed in the 25 second time-out period when the tone reaches the 2nd lowest level. Hopefully this problem won't be with us for much longer. Steve Benko has managed to obtain all the cable & conduit required to put the mains onto Mt Murray. This is an excellent achievement & we must sincerely thank Steve. (I won't state how much this stuff would have cost, BUT it is more than what the Society has in it's account). Steve is also trying to arrange a back-hoe to dig the trench. If anyone else has any offers or ideas, please contact the Rptr Committee or Steve.

15/6-6850 shut-down remotely due to the battery low voltage. The WIA Broadcast was the next day & the batteries would not have survived. (7275 turned back on that arvo').

16/6-Once again, good old Ken took a fully-charged set of batteries up to Mt Murray & exchanged them for the flat ones. This was done very early in the day, before his domestic duties.

Thanks again Ken. That afternoon, John XGJ went on-site to re-install the ROSE Node for the digipeater. He found that the digipeater was hooked-up to the ROSE UHF antenna, not the VHF Colinear! No one knows when this had been done, but probably explains the low-level noise bursts on the WIA B/cast from the digi & of course the rather poor performance of the digi.

17/6-John went on-site again to do further work on the ROSE system. Apparently it is working well now, with contacts through to VK6 not a problem. John has promised to write a separate report for this issue regarding the system.

VK2RUW-Basically working well. Sometimes on cold nights, the PT line keeps the TXer keyed after the Mute has closed. The time-out timer is still being reset, so just ignore it for the time being. This is due to the "temperature sensitive" squelch & is not harmful to the Rptr. I have just built (this arvo), a thermostat controller to turn the cubicle fan & heater on & off at predetermined temperatures. We are also going to glue some polystyrofoam to the walls. This should help stabilize the internal temperature.

1/6-VK4CY (MM) was able to access & use the rptr from south of Eden using a Hand Held & running 2½ watts into a VHF (!) 5/8th Ground Plane.

9/6-While the rptr was in use the system shut-down. Peter (BIT) went on-site (in pouring rain) & found the base of the rptr cubicle was under inches of water. What had happened was that the fan came on (because RAH & RUW were both in use), but unfortunately because the fan is bolted to the base of the cubicle, it was under water. This blew the Cubicle's 240V 2A fuse. In ankle-deep water, Peter changed the mains fuse. A rather un-recommended practice. The rptr was back

on-air after about 45 mins. Thanks Peter. The Linking of RUW with RGN (Goulburn) is still proceeding. This, plus other planned work to be done soon. VK2RAH-Still working fine. Still needs optimising, but good enough to leave till later.

As this may be my last report (due to the AGM next meeting) I must say a BIG THANKYOU to everybody who has assisted in keeping our Society's Repeater systems running for the past 12 months. (As can be seen from what has happened in just the last month, there is a lot of unseen work that goes into their maintainence.) Hoping not to leave anybody out, I must especially thank Ken TKE (my "right-hand" man), John XGJ (for his work on the Packet systems), Steve XNH (for his assistance with RUW's upgrade), Peter KHE (for his monitoring & control of the rptr systems) & Peter BIT (for moving to Robertson & being closer to our mountain-top rptrs). A special mention must go to the wives who allow us the time to spend working on the rptrs (& believe me there is a lot of time taken). In the last 12 months I think the Rptr Committee has achieved a lot with more improvements planned. A full annual report will be included next issue.

Till next time Rob-VK2MT

WANTED

FAST LOAD CARTRIDGE FOR C64
COMPUTER, WITH CENTRONICS INTERFACE
OR SIMILAR WILL DO.
CONTACT JEFF VK2EWJ ON 044-430070

Southern region Regional conference of clubs 15th of June 1991.
Held at the Wollongong SES Headquarters Montague St.

Host club: Illawarra Amateur Radio Society Inc.

The Meeting was attended by the following:

Name	Club	Call	
Frank D. Barsanti	Fishers Ghost	VK2FDB	
John Brooke	RNARS (+FGARC)	VK2FUR	
Yvonne Smith	Fishers Ghost	VK2KYS	
David Parry	MSCARC	VK2CDP	
Stan Burke	MSCARC	VK2EL	
Dennis Byrnes	GARS	VK2TDB	
Horst Bernhard	FFG	VK2NFG	
Victor Hee	IARS	VK2XSV	
Robert Todd	Fishers Ghost	VK2VZ	
Leslie Simmons	FFG	VK2TJ	
David Thompson	GAARS	VK2BDT	
Brian Clarke	IARS	VK2KLH	Chair
Ken Goodhew	IARS	VK2TKE	
Rob McKnight	IARS	VK2MT	
Aurthur Harris	FFG	VK2FFH	
Ken Grima	IARS	VK2KWG	Secretary
Peter Tomlin	IARS	VK2KHE	
John Simons	IARS	VK2XGJ	
Ron Henks	IARS		

Meeting Opened at 1:15pm by Brian Clarke VK2KLH (Chair) After lunch at the Wollongong SES organised by Simon Ferrie VK2XGX.

Apologies were accepted from:
Tom Paisey Southern Highlands
Pat Kennedy IARS VK2KCV
Simon Ferrie IARS VK2XGX

The proposals collected by Brian VK2KLH were read out and the following proposal was submitted by VK2FTB

Licences be produced for purchase of Amateur equipment.

MOTIONS.

1.0.0 PACIFIC REGION MATTERS.

1.1.0 GENERAL.

1.1.1/a That affiliated Amateur Radio Clubs be requested to appoint an Intruder Watch delegate to receive reports and pass on reports to Intruder Watch and WIA.

/b WIA to insist on feed back from government regarding action taken, and then pass back to club coordinators.

Proposed by John VK2FUR.
Seconded by Aurthur VK2FFH.

Motion passed without objection.

2.0.0 WHOLE OF AUSTRALIA MATTERS.

2.1.0 GENERAL.

2.1.1/ That WIA should seek legislation regarding EMC for region 3 as in region 1 and 2.
Proposed by VK2TJ.
Seconded by VK2FDB.

Motion passed without objection.

2.1.2/ That there be an Australian Reference book like RSGB or ARRL.
Proposed by VK2XGJ.
Seconded by Ron Hens.

Motion passed with 1 objection.

2.2.0 SPECTRUM.

2.2.1/ That there be space at 23cm for FM ATV.
Proposed by VK2XGJ.
Seconded by VK2BDT.

Motion passed without objection.

2.2.2/ That WIA pursue further space above 30GHz.

It was Proposed that the motion not be put.

2.2.3/ That WIA seek protection from interference on 2m.
Proposed by VK2XGJ.
Seconded by VK2BDT.

Motion amended to read as follows:

Propose amending 2m band plan such that beacons and simplex be moved to the top of the band to act as a guard band and move repeaters down the band.

Proposed by VK2XGJ.
Seconded by VK2BDT.

Motion passed without objection.

2.2.4/ That WIA seek permanent retention of ATV channels 35 and 70 and 23cm frequencies.

It was Proposed that the motion not be put by VK2KYS without objection.

2.2.5/ That novices be allowed to use RTTY and AMTOR on 10m (as in USA)

It was Proposed that the motion not be put by VK2VZ without objection.

4.0.0 ADDITIONAL ITEMS (Additional to submitted items)

4.1.0 GENERAL

4.1.1/ That anything put to WIA or DOTC be fed back to the regions and clubs.

Proposed by VK2TJ.
Seconded by VK2KYS.

Motion carried without objection.

4.1.2/ In view of exam devolvement and the large degree of self regulation, that WIA approach DOTC for a reduction in licence fees. Proposed by VK2EL.
Seconded by VK2CDP.

Motion carried without objection.

4.1.3/ That WIA and DOTC confer to simplify the procedure required to gain approval of exam papers.

Proposed by VK2BDT.
Seconded by VK2XIJ.

Motion amended to read as follows:

That WIA and DOTC confer to simplify the procedure required to gain approval of exam papers. If there is no satisfaction within 10 working days, WIA to approach the ombudsman.

Proposed by VK2BAC.
Seconded by VK2NFG.

Motion carried without objection.

4.1.4/ That Fishers Ghost run the next regional conference, venue to be advised.

Motion carried without objection.

VK2EL moved a vote of thanks for the Chairman and Secretary

Meeting closed at 4.00pm.

P.S.

1/ Unfortunately the proposal submitted by VK2FTB "Licences be produced for purchase of Amateur equipment." was overlooked.

2/ A convener for the next 6 months is to be appointed.

2.2.6/ That limited licence operators be allowed to use the top of 10m (because of repeater linkages and mode A satellite)
Proposed by VK2XGJ.
Seconded by VK2TKE.

Motion not carried with 5 for and 12 against.

2.3.0 INSURANCE

2.3.1/ That the WIA carry out a review of public risk insurance arrangements for clubs.
Proposed by VK2EL.
Seconded by VK2CDP.

Wording of motion altered as follows:
That the WIA carry out a review of public risk insurance arrangements for clubs, specifically the last insurance premium hike, and whether quorate.
Proposed by VK2EL.
Seconded by VK2CDP.

Motion passed without objection.

2.4.0 AR

2.4.1/ That AR be a quarterly publication.

It was Proposed that the motion not be put by VK2KYS without objection.

2.4.2/ That AR be available through clubs for resale
Proposed by VK2FUR.
Seconded by VK2TKE.

Motion passed with 1 objection

2.5.0 WICEN.

2.5.1/ That WICEN discussions be held in front of all delegates.

It was Proposed that the motion not be put by VK2CDP without objection.

2.5.2/ That clubs give more support to WICEN.
Proposed by VK2FUR.
Seconded by VK2VZ.

Motion amended to read as follows:
That affiliated clubs be encouraged to appoint a WICEN delegate.
Proposed by VK2FUR.
Seconded by VK2VZ.

Motion carried with 9 for and 1 against.

Presidential Annual Report.

Well, my fellow amateur friends, the last 12 months have been to some extent busy with different projects on behind the scenes. The theme for the meetings this year has been practical amateur radio with topics such as ATV, Packet demonstration, microwaves, home brew demonstration, ARRL video, 70cm repeater amp., and the normal draw card, auctions where selected items are circulated amongst members with the condition that they reappear at a future auction. There have been a few other events organised, the operations weekend at saddle back, the bus trip to the Gosford field day where a certain person who will remain unmentioned did not wear a regulation IARS tea shirt, and of course last but not least the tower for the club station.

I will not be standing for President this year (is that a sigh of relief I hear ... no that doesn't give you a licence (editors) to insert a comment here). I would like to give a word of thanks for the many hard working club members that have put in a lot of effort over the last 12 months. Vic Hee VK2XSV who almost single handed put up the Club station Tower many thanks Victor. Rob McKnight VK2MT and Ken Goodhew VK2TKE the dynamic repeater Duo with their many helpers (Graeme East VK2XLA, Peter Tomlin VK2KHE, and others) for their work on repeater maintenance and improvements, not forgetting of course the valuable work of Graeme Dowse with the servicing of repeaters. John Simons VK2XGJ Mr. packet racket with his work on Rosie. Peter Tomlin VK2KHE and Ken Goodhew VK2TKE always there to do the Sunday WIA broadcasts. Brian Clarke with his work on the Conference of clubs. (If the editors publish the minutes from the conference I gave them then there will be no room for anything else.) I had better mention the editors Simon Ferris VK2XQX, Bill Stone VK2JBS, and Graham Denney VK2GID well that's it I mentioned them. By the way 2 questions. Which one of you is zaphod? Will zaphod be submitting articles in future

propagators? Job well done boys, not forgetting of course Dale Hughes VK2DSH, and Ray Ball VK2XCC the printers folders and posters of the propagator. There are the 2 hard working Pats, Pat Kennedy VK2KCV and Pat Jordan VK2G?? (well you did change your call ... is it VK26PJ?). And the list goes on and on.

Of course the trouble with mentioning people is that one will invariably forget someone. Well you haven't been forgotten the editors must have shortened the article to fit it in this months action packed edition of the Propagator. Seriously though, I thought that a few of our members did need a mention as quite often their work is not seen, but as I started to list people for mention, I realised that there are a lot of people doing good work in the club and I must congratulate the club as a whole for the effort that the above mentioned and other members have put in over the last 12 months. If I have missed your name, which I will have done, you have my permission to chew my ear next time you see me.

73's

Ken Grimm VK2KWG

SIMPLE ANTENNA TRAPS

The 100-odd foot trap dipole tuning five bands can be an attractive proposition, especially when the traps are simple (and cheap) to home-brew.

Most manuals show such traps to consist of an inductance wound over a transmitting-type fixed capacitor. To resonate, the turns of the inductance are wiggled and jiggled to adjust to the correct value. This adds up to a frustrating way to obtain an unsatisfactory result which proves mechanically unstable. But, with a little ingenuity, a superior product can be constructed easily.

The texts show that an inductance of 10.75uH with parallel capacitance of 47pF is an ideal combination. One or the other must be capable of adjustment to enable the trap to be resonated at the desired frequency in the 40-metre band, say 7075 kHz.

The inductance presents no problem, though to avoid losses it should be of high efficiency and low ohmic resistance, which means a conductor of not less than 16-gauge. Anything inferior to this is tantamount to a choke, an inappropriate insertion in any radiating system.

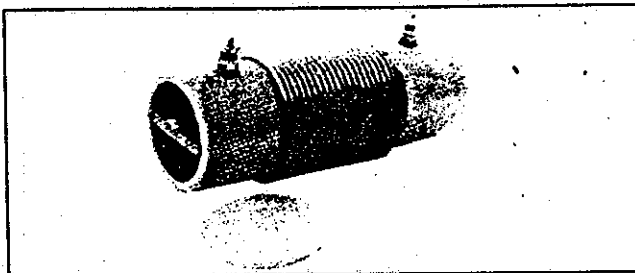
The wire in this case came from a discarded power cord, which yielded two 6-foot lengths of stout insulated wire, which would wind exactly 10 turns-per-inch. The conductors consisted of 26 strands of fine wire, equivalent in diameter to 16-gauge.

For the coil former an off-cut of plastic tubing was obtained. It was marked 40mm (1-9/16") outside diameter and measured 32mm (1 1/4") inside diameter.

20 turns close-wound to a total length of 2 inches gave an inductance measured at 10.8uH. As the coil former also becomes the supporting insulator, it was cut to 4 1/4" in length, to allow adequate tensile strength.

Now a capacitor is needed and has to be a small but good quality close-toler-

By Mervyn Euston VK450
GPO Box 1513
Brisbane 4001



ance high-voltage item, nominally of 47pF, but capable of fine adjustment to permit precise setting of the desired frequency. Naturally, these will not be found at your friendly electronics store.

Happily, capacitors with these specifications prove easy to make. First consider the formula for capacitance of two plates separated by a dielectric with a constant "k".

$$pF = .224 \times \frac{\text{area} \times k}{\text{spacing}}$$

For suitable material, 1/16" copper-clad fibre-glass circuit board was considered: a peek into the text-books showed the dielectric constant of fibre-glass to be 5. Two pieces, back-to-back? A quick calculation showed that a 1/8" thick capacitor so formed, and measuring 4 1/4" x 1 1/4", the exact internal measurement of the coil former, theoretically was 47.6pF (Aha! beat you this time, Murphy!).

Two small sheets cemented together and cut to size fitted snugly inside the former. A check on the capacitance bridge showed its value to be just on 47pF.

Loosely coupling a g.d.o. to the traps and taking a readout on the station receiver found both traps to be within a whisker of each other, but resonating at 7055 kHz, a trifle below that desired. A few strokes of a file at the ends of each capacitor quickly had both traps precisely on 7075 kHz. It would have been equally feasible to drill the copper sur-

face (only one would be necessary) with a fine bit.

This method of adjustment is very precise: about one-twelfth of an inch in length of the capacitor represents 1 pF, so correction of the frequency to within a few cycles is easy. In all other respects the home-brew capacitor is ideal, being waterproof (and fireproof): neither is it subject to thermal change, due to the minimal thickness of the plates. The rupture voltage of fibre-glass is 500 volts/mil, giving the capacitor a breakdown rating of 60 kV.

The addition of fine threads and nuts for mounting (plated brass of course) completes the traps. Plastic discs cemented to the ends improve the appearance, and more importantly, prevent the noise of wind whistling through. Other finishing, such as coating with a sealant or plastic tape, is left to individual whim, but does not seem necessary.

Incidentally, for the coil former, pass over the soft grey PVC material in favour of the red-coloured compound. This latter is of higher density with better electrical qualities and greater mechanical strength. The permittivity of common PVC varies with frequency and losses tend to be high at 28 MHz, but in any event the carbon content of the grey compound renders it unsuitable.

Pruning of the antenna for optimum performance after installation will be needed as usual, but full details are available in the hand-books.

THE ILLAWARRA AMATEUR RADIO SOCIETY INC

NOMINATION FORM (1991-1992)

FOR THE ELECTION OF CLUB OFFICERS

I _____, a member of the Illawarra Amateur Radio Society Incorporated, nominate the following people for the vacant committee positions:

	Nomination Accepted
PRESIDENT: _____	_____
VICE PRES: _____	_____
SECRETARY: _____	_____
TREASURER: _____	_____
THREE ORDINARY MEMBERS:	
_____	_____
_____	_____
_____	_____

I _____, a member of the Illawarra Amateur Radio Society Incorporated, second the above nominations for the committee vacancies.

Dated: ____/____/1991.

REMOVE THIS PAGE

FOR YOUR NOMINATION
FORM PLEASE.

ROSE INFO

Well after a few false starts the Illawarra ROSE Node is operational. As from 1630K on Sunday 17th June. At least that is the date it was installed. The squelch was a little high and the deviation a little low but at least it was working. Tuesday afternoon on arriving home from work was horrified to find no sigs from "Beast on the Hill", so throwing a few necessary bits into my "toolbox" plus the original TNC just in case I could not fix it up there, the ever faithful Holden headed once more Up the Hill. This time I took care to set the squelch so that the noise floor just broke the mute and with the assistance of VK2JHW Harry and VK2XNH Steve (another Packeteer in the making??) I set the deviation to a higher level. It gets cold up at Mt Murray at 1700K, sitting on the chair hunched over a TNC. If you don't believe me ask VK2CAG, VK2MT, VK2BIT and VK2TKE as these chaps have all been up to our various repeater sites in all Wx. After getting the nod that all was OK from Harry and Steve I buttoned it up and left it to its own devices. At the time of writing, Saturday 23rd The Beast on the Hill is working to specs.

Now, I need feedback from the Packet Users as to the usefulness or other wise of the system. Are you getting to the str's that you want without problems? Is the system fast enough? Is it too fast?? As time goes on I'll learn more on the configuration and will put more information onto the Info area.

I think there is enough information available without me giving a blow-by-blow description here, but, if you need more info then download the ROSEUSER manual from the VK2XGJ PRBBS. To do this enter:

D ROSE/ROSEUSER.TXT

and save it to disk for printing out at your leisure.

A couple of Users have been asking various questions on operating various TNC's, this being the case would there be any interest in a Work-Shop type of meeting for the newer User? Leave a message on the VK2XGJ BBS or a call on 146.850, 438.225. Or if you wish a time can be set to come over to the VK2XGJ QTH for a first hand look at the BBS in operation.

The BBS has been going well over the last few weeks with the TCP/IP protocol now working on both freq's 144.875 and 147.575.

73 de VK2XGJ

STUCK IN A HOT PLACE

Ned VK2AGV a fellow club member is currently on Australia's largest merchant vessel, the Iron Pacific. He is 1 of 30 Aussie officers and crew aboard. The ship is in dry dock at the American Naval Base at Subic Bay in the Phillipines. They have been stuck there for 2 weeks so far because the ship is covered in volcanic ash and rock. We wish Ned and his shipmates well. This info was taken from John XGJ's packet BBS.

STOP PRESS

One of our intrepid reporters tells us that on the 23/6/91 Peter VK2KHE became a grand dad to Christopher James. Congratulations Peter.

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QSL CARD INFLUX

As it happens, the QSL cards in and out team is run by two of the Editors. This month's meeting saw a large number of cards appear in the post box. Many were distributed at the meeting, but some are still left. Those with only a couple of cards will find them in the magazine, but there are also stacks for a few people to pick up at the A.G.M. Please come along!

DOTC QUESTION

Last month, Keith VK2OB asked us the following question: Which filter is the best band-stop filter?

The answer was (B) - A parallel resonant LC circuit in series with the load, and a series resonant LC circuit in shunt.

This month, Keith asks us: What is the typical value for the "Q" of a quartz crystal used as a filter?

- (a) Almost 800
- (b) 1000 to 2000
- (c) 3000 to 6000
- (d) Over 9000

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AIWA STEREO TAPE DECK (CASSETTE) VU METERS AND MIKE INPUTS FOR STEREO RECORDING. \$100.00 D.N.O. CONTACT SIMON VK2XQX

HOMEBREW NIGHT (Pt 1)

As you probably knew from reading this newsletter, the June meeting of the Illawarra Amateur Radio Society was to be a Homebrew night. Several people showed up at the usual time and place with their wild and wonderful pieces of gear to show off, but to no avail. The meeting had been postponed.

This was a pity, considering the fact that there was some very interesting equipment on show. This all goes to prove that Amateurs are lousy communicators after all!!!

See Jack at

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HOMEBREW NIGHT (Pt 2)

On take two of the meeting, there was a much greater attendance, including an auction of many items from a deceased estate. Items included the usual bits and pieces in boxes, as well as some radios of Amateur and C.B types in almost brand new conditions. Many bargains were had by all.

The homebrew night saw various bits of homemade gear being shown off by quite a few of the members. This also raised much interest, giving a highly exciting night.

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POST BOX

- ALL MAIL CAN BE SENT TO "THE ILLAWARRA AMATEUR RADIO SOCIETY" AT PO BOX 1838, WOLLONGONG, 2500.

REPEATERS

-VK2RAH - 29.520	VOICE	HF Mt MURRAY RX
29.620		KNIGHTS HILL
-VK2RAW - 146.850	VOICE	VHF Mt MURRAY
-VK2RIL - 147.275	VOICE/RTTY	VHF SUBLIME Pt
-VK2RAW - 147.575	PACKET	VHF Mt MURRAY
-VK2RUW - 438.225	VOICE	UHF KNIGHTS HILL
(OFF AIR) -VK2RIL - 438.725	VOICE/RTTY	UHF SUBLIME Pt

BROADCAST

-IS ON SUNDAY EVENING AT 6.45pm, IN RTTY MODE, TRANSMITTED ON 147.275 AND RELAYED ON 3.618 MHz +/- GRM. CALL BACKS TAKEN IMMEDIATELY AFTER. VOICE BROADCAST HELD AFTER WIA RELAY ON 146.850 MHz (VK2RAW) AND 3.618MHz +/- GRM.

WIA RELAY

-ON 146.850 MHz AT 10.45am AND 7.15pm EACH SUNDAY.

NEWS LETTER

-PUBLISHED EACH MONTH TO REACH ALL FINANCIAL MEMBERS IN THE WEEK PRECEDING THE CLUB MEETINGS. ARTICLES AND LETTERS ARE VERY WELCOME.

MEMBERSHIP

-\$15.00 P.A. CONCESSIONS \$12.00 P.A.

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.

STORE

-THE CLUB STORE IS OPEN AT EACH MEETING.

***** COMMITTEE *****

PRESIDENT
SECRETARY
TREASURER
ASSIST SEC
TREASURER
ASSIST TREAS
COMMITTEE

-VK2KWG - KEN GRIMM	
-VK2KEY - PAT JORDAN	
-VK2KCV - PAT KENNEDY	
-VK2XSV - VIC HEE	
-VK2TKE - KEN GOODHEW	
-VK2KHE - PETER TOMLIN	
-VK2MT - ROB McKNIGHT	- VK2XSV - VIC HEE
-VK2FPN - PETER READ	- VK2XGJ - JOHN SIMON
-VK2KLH - BRIAN CLARKE	- VK2KHE - PETER TOMLIN
-VK2MT - ROB McKNIGHT	
-VK2KHE - PETER TOMLIN	- VK2XLA - GRAEME EAST
-VK2TKE - KEN GOODHEW	- VK2XGJ - JOHN SIMON
- TOM JEPSON	- VK2KLD - LES DAVID
-VK2TPH - PHIL HOWCHIN	
-VK2GID - GRAHAM DENNEY	
-VK2JBS - BILL STONE	
-VK2MT - ROB McKNIGHT	
-???	(Your name could be here....)
-VK2AXI - BRIAN WADE	
-ZAPHOD (VK2XGX, VK2JBS, VK2GID)	
-VK2DBH - DALE HUGHES	-VK2XCC - RAY BALL
-VK2XCC - RAY BALL	
-VK2DYU - BILL CHADBURN	
-VK2XSV - VIC HEE	
-VK2XSV - VIC HEE	
-VK2OB - KEITH CURLE	
-VK2ALU - LYLE PATISON	-VK2OB - KEITH CURLE
-VK2CAG - GRAEME DOWSE	

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