



# The PROPAGATOR IARS

## 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 90 No 9

SEPTEMBER 1990

### EDITORIAL COMMENT

WELL I SEE THAT WE THE EDITOR SEEM TO HAVE SURVIVED THE PRINTING OF THE LAST EDITION OF THE PROPAGATOR WITHOUT ANY BOMB ATTACKS OR DEATH THREATS. FROM COMMENTS OVERHEARD ON AIR AND IN MEETING, IT SEEMS THAT WE HAVE DONE ACCEPTABLY. IN THE WORDS OF ONE OPERATOR / COLLATOR, WE OBVIOUSLY HAVEN'T BEEN OFFENSIVE ENOUGH. HMMMMM...

MANY THANKS TO ALL THOSE WHO MADE ENCOURAGING COMMENTS AND SUGGESTIONS TO US. THIS IS WHAT MAKES A JOB LIKE THIS A BIT LIVEABLE. BUT REMEMBER - THERE ARE A LOT OF PEOPLE OUT THERE WHO ALSO DO A GREAT JOB AT WHAT THEY DO - HAVE YOU TOLD THEM LATELY? NO, THIS IS NOT THE MOTHER'S DAY EDITION.

SPEAKING OF PROFUSE (THE IDEA HERE IS TO INTRODUCE ONE NEW WORD A MONTH - YOU ALL KNOW WHAT TOME MEANS NOW, DON'T YOU) THANKS. PETER VK2KHE HAS BEEN RECEIVING LOTS OF PATS ON THE BACK FOR DOING THE JOB OF THE BROADCAST OPERATOR. BUT HE CAN'T DO IT EVERY TIME. HOW ABOUT SOMEONE OUT THERE WHO WANTS TO STAR ON THE BACK PAGE AND DO A BIT???

ON WITH THE REST OF THE MAGAZINE.

### PROGRAMME

FOR THOSE WHO MISSED THE GREAT TALK LAST MONTH ON MICROWAVES, HERE IS WHAT WE HAVE COMING UP:

SEPTEMBER: TALK BY JOHN VK2XGJ AND CRONIES ON PACKET RACKET AND DIGITAL MODES. WE HAVE BEEN ASSURED THAT THIS WILL BE QUITE A NIGHT.

OCTOBER: THIS MEETING NIGHT WILL CONCENTRATE ON PREPARING FOR THE CLUB DX-PEDITION IN NOVEMBER. ALSO DON'T FORGET JOTA - ARE YOU INVOLVED IN THIS CHANCE TO GET SOME YOUNG BLOOD INTO THE HOBBY?

NOVEMBER: NOT SURE WHAT THE MEETING WILL BE ABOUT. ALSO IN THIS MONTH IS THE DX-PEDITION YOU HAVE HEARD SO MUCH (LITTLE?) ABOUT. SOMEWHERE INSIDE IS AN ARTICLE TO GIVE YOU SOME IDEA ABOUT WHAT WILL BE GOING ON ON THIS DAY. JUST TUNING AROUND THE BANDS, IT SEEMS THAT QUITE A FEW PEOPLE ARE GETTING INTERESTED IN THIS. MORE DETAILS INSIDE....

THAT IS REALLY ABOUT AS FAR AHEAD AS WE HAVE SORTED OUT SO FAR. WATCH THIS SPACE ----> " " <--- FOR FUTURE EVENTS AND FURTHER DETAILS AS THEY COME TO KEYBOARD.

## DENNIS'S ANTENNER COLUMN

EDITOR'S NOTE: WHEN WE CONTACTED DENNIS THIS TIME AROUND FOR SOME OF HIS UNIQUE TECHNICAL HINTS, HE ASKED US WHAT SORT OF TALK WAS BEING GIVEN THIS MONTH. WE TOLD HIM ABOUT THE PACKET RACKET WHICH XGJ JOHN WAS TO GIVE. DENNIS HAS SOME TIPS ON THESE LINES THIS MONTH...TAKE IT AWAY DENNIS.

\*\*\*\*\*

I WAS RECENTLY ASKED FOR SOME INFO ON HOW TO USE A COMPUTER WITH A RADIO, AND ABOUT PACKET. WELL, IN MY EXPERIENCE THE PACKET IS NEXT TO USELESS, UNLESS YOU NEED A DOG HOUSE OR SOMETHING. TAKE THE COMPUTER OUT OF THE BOX AND CHUCK IT AWAY.

REGARDING HOW TO USE A COMPUTER, THE ANSWER IS SIMPLE. YOU PLAY GAMES. THERE IS NO OTHER USE FOR A COMPUTER. I DON'T KNOW WHY ALL THESE PEOPLE BUY PRINTERS.

ANOTHER COMPUTER TIP...WHEN YOU HAVE LOADED A GAME FROM CASSETTE, YOU HAVE TO REWIND IT AND LOAD IT AGAIN NEXT TIME YOU WANT TO USE IT. THIS IS AN IMPORTANT FACT OFTEN OVERLOOKED BY NOVICE USERS. ALSO, THE GAME WILL USUALLY NOT WORK IF KYLIE MINOGUE HAS BEEN RECORDED OVER THE TOP. RECENTLY I FOUND THIS OUT FIRST-HAND.

ALSO, WHILE I HAVE YOU HERE, YOU CAN SAVE A FEW DOLLARS ON AN AIR FILTER FOR YOUR MOTORBIKE BY GETTING A SECOND-HAND ONE FROM SOMEONE AFTER THEY HAVE FINISHED USING IT.

LAST MONTH YOU TALKED ABOUT MICROWAVES. I AM SORRY THAT I COULDN'T HELP YOU THERE, BUT MUM DOES MOST OF MY COOKING FOR ME. I'LL ASK HER FOR SOME IDEAS FOR NEXT MONTH'S COLUMN. (WE WILL SPARE YOU THE TROUBLE...Ed).

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## ZAPHOD'S HINT NO IC-781

VK2FROG PETER (CLUE...HE USED TO BE PRESIDENT AND INSISTS HE ISN'T THE BROADCAST OPERATOR) FOUND THAT HE WAS GETTING HIS SIGNALS FURTHER THE OTHER NIGHT THAN USUAL. WE ASKED WHY, AND THE EXPLANATION WAS THAT ON WET NIGHTS, THE FROGS IN A NEARBY CREEK RESONATE WITH THE ANTENNA, GIVING A BETTER SIGNAL.

ZAPHOD'S HINT TO PETER WOULD BE TO CONTACT DENNIS FOR FURTHER HINTS IN THIS DIRECTION. LAST ISSUE WE ASKED FOR SOME INFO ON TECHNICAL EXPERIMENTS, BUT WE DIDN'T EXPECT THIS SORT OF RESPONSE.



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# Simple UHF antenna

Geoff Pearson VK5ZGP

A simple, make-in-an-afternoon  
antenna from scrounged parts.

THE ARRIVAL of UHF translators on the Adelaide scene offered new hope for the 10% of viewers in poor locations. The translators are grouped on top of the Grenfell Centre, a 28-storey building in the city centre, and the antennas are aimed to give about 180° coverage to the foothills area. About this time we graduated from a 12" B&W to 14" colour TV — with UHF tuner, naturally — and although we have line-of-sight to the main VHF towers about 15 km away, we now had glorious colour ghosts, courtesy of a large, steel-clad factory about 600 m away. Hence the desire to try UHF. Figure 1 shows the problem!

Some careful study suggested a corner reflector would do the job, needing a reflector about 300 x 1000 mm. Alas, the nearest piece of junk was a punched metal sheet 300 x 900 mm. Reference to the RSGB-UHF handbook revealed a version known as the 'trough' and away we went.

Figure 2 shows the theoretical sizes of the 'corner' and the 'trough'. Punched or expanded metal is recommended to reduce wind loads on the antenna.

## Parts List

The following was all scrounged from my shed:

- at least 600 mm of ½" galv. waterpipe.
- ½" galv. socket.
- ½" galv. flange
- ½" galv. elbow.
- ½" PVC connector — PVC pipe to threaded ½" male.
- about 200 mm of 3/16" brazing rod.
- 300 x 900 mm of punched or expanded metal sheet.
- 75 ohm coax
- auto body filler — two-part polyester.
- Superglue — a few drops.
- 2 x 3/16" gutter bolts.

Reflector: The 900 x 300 mm sheet of punched metal is bent up 45°, 400 mm from each end, to form the reflector 'trough'. Cut a clearance hole, about

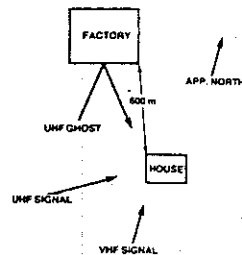


Figure 1. A nearby factory brings UHF ghosts!

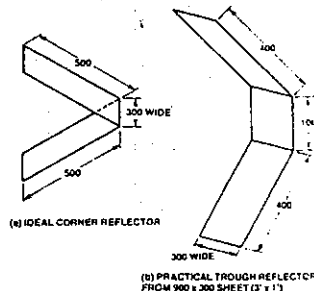


Figure 2. 'Corner' and 'trough' reflectors. Apex angle in both cases is 45°.

20 mm diameter in the centre to pass the ½" pipe through. Drill and bolt the reflector to the ½" flange.

Support: Cut a thread onto the ½" pipe about 120 mm long. Cut off 100 mm of the threaded pipe using a few drops of Superglue, or wrap pipe thread tape on pipe to lock the flange.

Element: Cut two pieces of brazing rod, each 95 mm long. Drill each side of the unthreaded section of the PVC fitting, and insert the dipole halves. Solder the coax feedline to the dipoles, set up so that a 10 mm gap exists at the feedpoint, and fill the PVC fitting with auto body filler and allow to set. Push the feedline through the pipe and screw the dipole into place.

Install the complete antenna on your choice of mounting — chimney, barge or whatever.

## Results

The antenna has been in use since September '80, and no problems have

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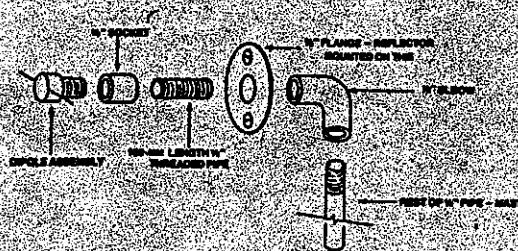


Figure 3. How the antenna support structure is made.

been evident. The actual installation is aimed at a point halfway between the commercials and the local ATV repeater, and all signals are rock solid and free of ghosts.

The range to the commercials is about 10 km, the ATV repeater is 25 km away, and the lines are 12° apart. There is a large gum tree plumb centre in the sight line to the commercials!

All dimensions are derived from ARRL and RSGB formulae, and are tailored to cover from channel 34 (ATV) to channel 52.

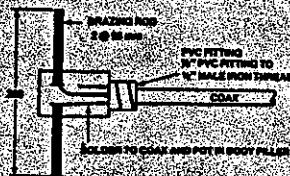


Figure 4. Construction of the dipole.

See Jack at

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DOTC QUESTION

LAST MONTH, KEITH VK2OB ASKED US: IF AN ELECTROMAGNETIC WAVE HAS A SINGLE CYCLE DURATION OF 2.25NS, WHAT IS ITS FREQUENCY?

THE ANSWER WAS (D) 444 MHZ. IF YOU DIVIDE 1 BY 2.25NS, YOU GET 444 MILLION CYCLES, AND SO THAT IS OUR ANSWER.

THIS MONTH KEITH ASKS:

THE QUARTER-WAVE GROUND PLANE ANTENNA IS USEFUL FOR HIGH FREQUENCY DX WORK BECAUSE IT PROVIDES:

- (A) UNIDIRECTIONAL COVERAGE
- (B) BIDIRECTIONAL COVERAGE
- (C) LOW ANGLE RADIATION
- (D) HIGH ANGLE RADIATION
- (E) I DON'T WORK DX SO I DON'T CARE

MINUTES OF THE AUGUST COMMITTEE MEETING OF THE IARS, TUESDAY, 2 AUGUST, 1990 SES HQ MONTAGUE STREET, NORTH WOLLONGONG START 19:40

PRESENT: VK2'S KWG (CHAIR), XSV, TPH, KHE, TKE, XLA, XCC, JBS, KEY, MT, XQX, KCV, XLH

APOLOGIES: VK2'S FPN, XGJ

THE MINUTES OF THE PREVIOUS COMMITTEE MEETING WERE READ AND RECEIVED.

BUSINESS ARISING:

KEN, VK2TKE, TO PURCHASE AND FIT DEADBOLT LOCK TO RADIO ROOM.

IAN, VK2EXN - KEN, VK2TKE, ADVISED THAT IAN HAS BEEN DISCHARGED FROM HOSPITAL AND IS NOW AT HOME. GET WELL SOON, IAN.

NEW MEMBERS - THE FOLLOWING NEW MEMBERS ARE WELCOMED TO THE IARS: ROBERT BONELLA, MARTIN KLEIN, JOHN LODDING VK2ZLJ, WAYNE CURLE VK2XTE.

NEXT MEETING - THE NEXT GENERAL MEETING OF THE IARS WILL BE HELD ON TUESDAY, 11 SEPTEMBER, 1990 AT SES HQ. JOHN, VK2XGJ, WILL BE GIVING A PACKET RADIO DEMONSTRATION. (PERHAPS RAY, VK2XCC, WILL SEE THE LIGHT AND BE CONVERTED. THEN AGAIN, HE PROBABLY WON'T. ANYWAY, HE WILL NO DOUBT MAKE HIMSELF HEARD ABOVE THE PACKET RACKET.) COME AND SEE THE ACTION - LIVE!!

OPERATIONS DAY - THE COMMITTEE CONSIDERED A NUMBER OF SITES SUGGESTED AND OPTED FOR THE "MOONBOUNCE SITE", SUBJECT TO RAY, VK2XCC, PERUSING THE AREA. IF SUITABLE, PERMISSION TO USE THE SITE AND ACTIVATE VK2AMW/P WILL BE SOUGHT FROM RELEVANT AUTHORITIES BY PAT, VK2KCV.

## REPEATER REPORT

**TOWER** - THE COMMITTEE APPROVED ANTICIPATED EXPENDITURE OF \$100 FOR EXCAVATIONS FOR TOWER FOUNDATIONS, SUBJECT TO PLANS BEING APPROVED. IF APPROVED, A WORKING BEE WILL BE HELD FRIDAY 7 SEPTEMBER (THIS WORKING BEE HAS BEEN CANCELLED BECAUSE THE COUNCIL HASN'T APPROVED OUR TOWER YET...Ed), FOR THE TURNING OF THE FIRST SOD (NO, KHE IS THE SECOND ONE). KEN, VK2KWG, TO ARRANGE ACCESS REQUIREMENTS WITH SES CO-ORDINATOR. VIC, VK2XSV, TO ARRANGE CONCRETE SUPPLIES AND MOBILE CRANE FOR TOWER PLACEMENT. BILL, VK2JBS, TO ARRANGE BEARINGS ETC FOR ANTENNA MOUNTING.

MEETING CLOSED 22:00 LOCAL

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I'VE SPENT 15 MINUTES SITTING IN FRONT OF THIS TYPEWRITE TRYING TO THINK OF SOMETHING WITTY, CLEVER OR CONTROVERSIAL TO START THIS, MY SECOND REPEATER REPORT. WELL, SURPRISE, SURPRISE, NOTHING SPRINGS TO MIND SO I'LL JUST BLUNTLY, WITHOUT INTRODUCTION, START THE REPORT...

FIRST, A LATE ADDITION TO OUR MERRY BAND OF REPEATER COMMITTEE PEOPLE, PHIL (WHAT DO YOU MEAN, RF MAKES YOU GO BALD) VK2TPH. WELCOME TO PHIL - WE'LL CALL YOU WHEN IT'S YOUR TURN TO GO TO MT MURRAY AT 2AM.

SECONDLY, VK2RAW 6850, VK2RIL 7275 AND VK2RUW 8225 ARE ALL BASICALLY OK. RAH, HOWEVER, STILL HAS PROBLEMS. BOTH TX AND RX ON THE LINK WERE BROUGHT DOWN AT THE END OF JULY. THE NEW LINK RX IS INTERFACED AND THE NEW LINK FREQ IS INSTALLED. CONSIDERABLE TIME HAS BEEN SPENT MODIFYING AND UPDATING SOME STAGES IN BOTH ENDS. TUNED AND CHECKED BY GRAEME VK2CAG, ALL OK. REINSTALLED AT SITES BY PETER VK2BIT AND MYSELF 12/8/90. ALL SEEMED OK. LITERALLY WITHIN MINUTES OF LEAVING THE TX SITE, JA VK6 AND ZL STARTED USING IT. GREAT, WE THOUGHT. ON THE WAY HOME WHILE LISTENING, WE HEAR VK2RAW'S CW IDENT COME OVER VK2RAH. PETER WENT BACK TO MT MURRAY AND DISCONNECTED ALL THE CONNECTIONS BETWEEN THE TWO EXCEPT FOR THE DC SUPPLY AND THE ANTENNA COAX'S. STILL NO GOOD, RAW'S USERS WOULD COME THROUGH RAH. NO CHOICE BUT TO DISCONNECT AND BRING THE RX BACK HOME, WHERE IT IS STILL SITTING IN THE SHACK. I HAVE NOT BEEN ABLE TO SIMULATE THE PROBLEM. I'VE GOT A FEW IDEAS BUT WILL HAVE TO TAKE THE RX BACK UP THE MOUNTAIN TO TEST IT. OH WELL, LIFE WASN'T MEANT TO BE EASY.

THIRD, AS I MENTIONED IN MY LAST REPORT AND AT THE LAST MEETING I SUGGESTED/PROPOSED AN IMPROVEMENT TO OUR CLUB'S UHF REPEATER SYSTEMS. TO THAT END, AT THE LAST MEETING OF THE COMMITTEE, IT WAS DECIDED TO GO AHEAD AND PURCHASE A COMMERCIAL DIPLEXER. I HEAR CALLS OF "HOW DISGRACEFUL...AN AMATEUR CLUB BUYING COMMERCIAL GEAR, WHAT EVER HAPPENED TO BUILDING, EXPERIMENTING AND CONSTRUCTION." I HOPE THAT NOT TOO MANY READERS THINK THAT. IF THEY DID, THEY HAVEN'T BEEN INVOLVED IN BUILDING A REPEATER. TO MY KNOWLEDGE, NOBODY IN OUR CLUB OR FROM OTHER CLUBS THAT THE PREVIOUS COMMITTEE CONTACTED HAD THE EXPERTISE REQUIRED TO BUILD A DIPLEXER WITH ABOUT 90DB OF ISOLATION WITH 1DB INSERTION LOSS FOR UHF. IF THERE IS, SPEAK NOW OR FOREVER HOLD YOUR PEACE. THE CURRENT PRICE FOR A DIPLEXER IS AROUND \$500 (GASP). THIS AMOUNT CAN BE OFFSET BY HALVING THE COST OF ANTENNAE AND FEEDLINES REQUIRED, AND THE IMPROVEMENT IN COVERAGE BY USING ONE ANTENNA. TESTS ARE BEING CONDUCTED ON OTHER IMPROVEMENTS.

IF YOU HAVE ANY IDEAS FOR REPEATER IMPROVEMENT OR IF THERE ARE ANY PROBLEMS YOU HAVE NOTICED, CONTACT MYSELF OR THE COMMITTEE. FEEDBACK IS THE ONLY WAY OF IMPROVING OUR SYSTEMS. BY THE WAY, DON'T YOU RECKON THAT BILL, SIMON AND GRAHAM DID A GOOD (EXCELLENT) JOB ON THEIR FIRST PROPAGATOR LAST ISSUE. WELL, I THINK THEY DID, JUST SO LONG AS THE EDITOR DOESN'T KEEP DROPPING HIS BRACKETED COMMENTS INTO MY REPORT. (OK, BOSS...Ed).

SIGNING OFF FOR NOW,  
ROB, VK2MT.

## VIMCOM

YOU KNOW THE PLACE  
AND YOU KNOW THE NAME  
AND YOU KNOW WHAT WE  
DO SO WHY DO WE NEED  
TO ADVERTISE TO TELL  
YOU THAT BESIDES  
ELECTRONIC  
COMPONENTS AND BITS  
AND PIECES, WE HAVE A  
VERY LARGE RANGE OF  
MICROCHIPS TO HELP  
YOU BUILD THOSE  
PROJECTS.

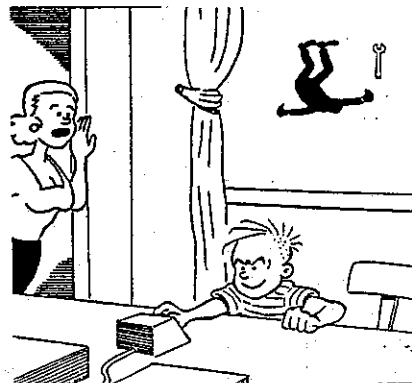
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I TOLD YOU NOT TO PLAY WITH THAT ROTOR CONTROL UNTIL YOUR FATHER COMES OFF THE TOWER!

*I found the problem  
with yer longwire,  
Rob. The insulator is  
cracked. that is where  
the audio is getting in.*



ZAPHOD'S HINT No 146.850

"OH MY GOODNESS, THE PORRIDGE!!"  
VK2XGJ ADDED NEW INSIGHTS TO  
INSURANCE COMMERCIALS EARLIER IN  
THE WEEK BY TAKING QUITE SOME TIME  
TO ANSWER HIS RADIO, WITH THE  
RESULT BEING A MESSY KITCHEN. POOR  
JOHN.

ZAPHOD'S HINT HERE IS TO NOT BE  
SO SILLY.

FOR SALE

DICK SMITH EXPLORER 70CM KIT  
KIT, FULLY ASSEMBLED AND WORKS  
GREAT. FULL 80 CHANNELS AND  
REPEATER OFFSETS INSTALLED. CALL  
PHIL HOWCHIN VK2TPH, COST IS  
\$150, OR WILL SWAP FOR THREE 6M  
MAGI BEAMS.

# WE'RE SORRY!

WE THE EDITOR OF NO FIXED ABODE  
(SORRY, WE'VE DONE THAT ONE WISH TO  
APOLOGISE A LOT (LIKE, HEAPS) TO  
MR ROB McNIGHT, VK2EMPTY, FOR  
LEAVING HIS NAME OFF THE LAST  
REPEATER REPORT.

ZAPHOD'S HINT No 3.142

WHILE SNOOPING AROUND DURING THE  
REMEMBRANCE DAY CONTEST, ONE OF THE  
EDITORIAL STAFF FOUND ANOTHER OF  
THE EDITORS (WHO SHALL REMAIN  
NAMELESS BUT HAS RECENTLY UPGRADED  
HIS LICENSE) TRYING IN VAIN TO PUT  
POWER TO THE AIRWAVES ON 80M WITH A  
40M ANTENNA. NO WONDER NOBODY WOULD  
ANSWER!!!

HOWEVER JUSTICE WAS SEEN TO BE  
DONE AS THE "SNOOPEE" FOUND THE  
RIGHT COAX AND PINNED THE OTHER  
GUY'S NEEDLE HARD AGAINST THE STOP.  
SOMETIMES YOU WIN, SOMETIMES YOU  
LOSE.



## ALL ABOUT NI-CAD BATTERIES

THIS IS THE FIRST OF A COUPLE OF ARTICLES THAT WILL COME YOUR WAY ABOUT LOOKING AFTER NI-CAD CELLS. I WON'T GO INTO HOW THEY WORK, BECAUSE YOU PROBABLY KNOW ALL THAT (AND IT DOESN'T MATTER FOR WHAT WE ARE GOING TO DISCUSS ANYWAY).

NO DOUBT JUST ABOUT EVERYONE OUT THERE HAS AT LEAST ONE HAND HELD IKENSU RADIO OR SOME OTHER DEVICE WHICH HAS A NI-CAD BATTERY. NATURALLY YOU WANT THE LONGEST LIFE POSSIBLE FROM YOUR BATTERY PACK. BUT SOMETIMES THE PACK UP AND DIES LONG BEFORE THE QUOTED 500 TO 1000 CYCLES OF CHARGE.

MOST USERS OF RECHARGEABLE PACKS KNOW ABOUT THE SO-CALLED NI-CAD MEMORY... THE WAY THAT A PACK SHOULD BE FULLY DISCHARGED BEFORE YOU RECHARGE IT, OTHERWISE THE LIFE SPAN IS REDUCED PREMATURELY. HOWEVER IF A PACK IS EXCESSIVELY DISCHARGED, THEN ONE OR MORE CELLS CAN REVERSE POLARITY AND WILL NEVER ACCEPT A CHARGE IN THE ORIGINAL DIRECTION. SO HOW FAR DO YOU GO? MOST MANUFACTURERS RECOMMEND THAT YOU ONLY USE THE BATTERY UNTIL THE HANDHELD SHOWS LOW CHARGE (OR STOPS WORKING PROPERLY), THEN RECHARGE IT.

NI-CADS CAN ALSO GET UPSET BY OVERTEMPERATURE. MANY BATTERY PACKS HAVE AN INTERNAL TEMPERATURE SENSOR THAT LIMITS CURRENT IF THINGS GET TOO WARM. AS A SAFETY BACKUP, EACH CELL WILL HAVE A SMALL PRESSURE VENT THAT RELEASES EXCESSIVE PRESSURE IN THE FORM OF POTASSIUM HYDROXIDE. IF THINGS GET REALLY TOUGH, SOMETIMES ELECTROLYTE WILL ALSO ESCAPE, WHICH NATURALLY REDUCES THE CELL'S CAPACITY.

ON AN AA TYPE NI-CAD CELL, THIS VENT IS FOUND UNDER THE POSITIVE CONTACT. IT IS THEREFORE A GOOD IDEA TO CHARGE THE CELL IN AN

UPRIGHT POSITION SO THAT IF THE VENT HAPPENS TO OPEN, YOU ONLY LOSE VAPOUR AND NOT ELECTROLYTE AS WELL.

DURING OPERATION, CELLS SHOULD BE ISOLATED FROM EACH OTHER VIA DIODES, TO STOP POLARITY REVERSAL. THIS IS WHERE IT GETS TRICKY - YOU NEED TO DISCHARGE (USE) THE CELLS IN SERIES TO GET THE 7.2V OR WHATEVER, BUT FOR BEST LIFE THE CELLS SHOULD BE CHARGED INDEPENDENTLY FROM EACH OTHER.

BY NOW YOU PROBABLY HAVE SOME IDEA WHY WE DON'T GET THE FULL LIFE OUT OF THE PACKS WE HAVE. NEXT TIME WE WILL TALK A BIT MORE ABOUT THE USAGE OF NI-CADS.

## ZAPHOD'S HINT No 30286

OUR SOURCES ADVISE THAT ONE MEMBER (WE DON'T KNOW WHO, BUT THE LETTERS T, K AND E ARE INVOLVED) SPENT A QUIET EVENING IN HIS CAR ONE THURSDAY NIGHT. UNFORTUNATELY, HIS HANDHELD WENT FLAT, SO HE HAD TO USE THE RIG IN HIS CAR. TROUBLE WAS, IT WAS DARK OUT THERE. POOR KEN (OOPS, WASN'T SUPPOSED TO GIVE A NAME).

ZAPHOD'S HINT TO COVER THIS SITUATION IS, IF YOU ARE GOING TO INDULGE IN THIS SORT OF BEHAVIOUR, DON'T TELL ANYONE ON AIR. THERE COULD BE EDITORIAL EAVESDROPPERS.

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## PACKET RACKET

BEFORE WE SAY TOO MUCH, BEAR IN MIND THAT THIS MAGAZINE IS PRINTED BY VK2XCC RAY. THIS MEANS THAT THIS COLUMN MAY NOT MAKE IT THROUGH. HOWEVER WE WILL PRESS ON REGARDLESS....

JOHN VK2XGJ ADVISES US THAT THE NEXT MEETING WILL BE A HANDS-ON EXPERIENCE NIGHT FOR PACKET OPERATION. THE IDEA IS FOR A "GETTING-STARTED" NIGHT. THERE WILL BE FOUR MACHINES SET UP ON THE NIGHT FOR PEOPLE TO HAVE A GO AT THE MODE, AND PERHAPS TALK TO SOMEONE FOR THE FIRST TIME.

JOHN HOPES THAT IT WILL NOT BE AN OVERLY TECHNICAL EVENING SO AS NOT TO LOSE PEOPLE WHO ARE NEW TO THINGS. HOWEVER IF ANYONE WANTS TO ASK A FEW QUESTIONS, I AM SURE THAT HE COULD BE PERSUADED TO SAY A FEW WORDS (OR FEW HUNDRED) OF A TECHNICAL NATURE, FROM GETTING STARTED THROUGH TO THE HEAVY STUFF.

WITHOUT UPSETTING OUR PRINTING OPERATOR ANY FURTHER, IT HAS BEEN SAID THAT THIS WILL BE A NIGHT FOR ALL TO ENJOY, AND TO GET A HANDS-ON SHOT AT THE LATEST AND GREATEST MODE OF AMATEUR OPERATING.

INCIDENTALLY, IT HAS BEEN SAID THAT THE ONLY REASON JOHN BECAME AN AMATEUR OPERATOR IS SO THAT HE COULD WORK PACKET. SO COME DOWN AND JOIN THE RACKET.

\*\*\*\*\*

TO RAY, I REALISE THAT THIS HAS BEEN A BAD ISSUE FOR YOU, WITH CHEAP SHOTS AT YOU ALL THROUGH IT. IF THE EDITOR WISH TO SAY THAT THIS WILL BE REDUCED IN FUTURE. HOWEVER, IF THERE IS A CHEAP SHOT TO BE HAD, WE ARE FELLAS TO PULL IT OUT.

## FOR SALE

REGULAR ATTENDEES OF THE MEETINGS OF THE SOCIETY WILL NO DOUBT REMEMBER MRS MESS OF SYDNEY, AND ALL OF THE EQUIPMENT THAT WAS LIBERATED TO THE CLUB. WELL, SHE RECENTLY DECIDED TO MOVE HOUSE, AND FOUND ABOUT 2,500 VALVES ON TOP OF A WARDROBE. (AMAZING MAN, WASN'T HE?) THESE ARE REPUTED TO INCLUDE SOME 813 TRANSMITTING VALVES AND A LOT OF OTHER USEFUL THINGS. A CATALOGUE OF WHAT IS THERE WILL BE MADE AVAILABLE AT THE NEXT MEETING OF THE SOCIETY. IF YOU WANT SOME FURTHER INFO IN A HURRY, VK2XQX SIMON HAS SOME LIMITED DETAILS.

\*\*\*\*\*

## UNFAIR!!!

ONE OF THE EDITOR HAS COMPLAINED ABOUT THE OPERATING PRACTISES OF VK2FPN PETER. AS YOU MAY HAVE SEEN IN THIS ISSUE, TALKING ON THE BANDS CAN CAUSE YOU TO BECOME A BIT FAMOUS IN THE MAGAZINE. BEING A PREVIOUS EDITOR OF THE PROPAGATOR, PETER KNOWS ALL ABOUT THIS, AND SO HAS RESORTED TO OPERATING QRP ON TWO METRES SO AS NOT TO BE HEARD AT THE STATION OF BILL.

WE WISH TO ADVISE THAT THIS SORT OF OPERATING IS UNDERHANDED AND WILL RESULT IN A THIN MAGAZINE IF IT BECOMES MORE WIDESPREAD. EITHER THAT OR WE WILL NEED A SOUTHERN CORRESPONDENT.

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## IARS NEWS

THE ILLAWARRA AMATEUR RADIO SOCIETY NOW HAS A WEEKLY NEWS BROADCAST (OF SORTS). THIS WILL BE HELD ON 146.850 MHZ (VK2RAW) AFTER THE WIA BROADCAST ON SUNDAY MORNINGS AND EVENINGS, JUST BEFORE TAKING CALLBACKS. A NEED HAS DEVELOPED FOR SOME SORT OF WEEKLY COMMUNICATION, AND THIS LOOKED LIKE A GOOD IDEA.

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### EXAM REPORT

AS WE MENTIONED LAST ISSUE, KEITH VK2OB, ARGUABLY THE MOST ADVERTISED CALL SIGN IN THESE PAGES, HELD A SERIES OF EXAMS FOR THE AACP, AOLCP AND NAACP SUBJECTS AT THE WOLLONGONG TAFE COLLEGE ON THE 20TH OF AUGUST.

OF THE CANDIDATES WHO SAT FOR THE EXAMS, KEITH ADVISES THAT THE FOLLOWING PEOPLE WERE SUCCESSFUL:

NOVICE THEORY: MERV COLLETT  
STIVEN BORDIN  
ROBERT BONELLA

REGULATIONS: ALEX BERKUTA

FULL THEORY: ALEX BERKUTA  
STEVE BENKO  
WARREN GIBSON

FULL MORSE RX: GRAHAM DENNEY

CONGRATULATIONS ARE IN ORDER TO THOSE WHO PASSED AND NO DOUBT WE SHALL SEE A FEW NEW CALLS BANNED AROUND THE BANDS AS A RESULT. YOUR SCRIBE IS WATCHING THE LETTERBOX LIKE A HAWK IN WAIT OF THE REPLACEMENT CALL FOR VK2JGI.

KEITH ADVISES THAT THE NEXT EXAMS WILL BE IN NOVEMBER.

### ZAPHOD'S HINT No 351C

MRS VK2MT FOUND OUT WHAT REALLY HAPPENS ON THAT SILLY BOX THAT TALKS. APPARENTLY ROB WAS GOING TO MEET HER ON 146.XXX, BUT HUBBY HAD JOINED A MINI-NET ON THE CHANNEL. AFTER SOME TIME OF PATIENTLY WAITING ON THE REPEATER (NOW, WHY WOULD ANYONE WAIT ON A REPEATER FOR A CALL??), SHE GAVE UP. IT'S A WORRY.

ZAPHOD FINDS IT SOMEWHAT DIFFICULT TO EVEN THINK ABOUT THIS ONE.

### THE LAST WORD

ISN'T IT FUN BEING AN EDITOR? YOU CAN TAKE NASTY SHOTS AT PEOPLE AND THEY HAVE TO WAIT A WEEK TO GET YOU BACK. YOU CAN WRITE BRACKETTED COMMENTS IN PEOPLE'S REPEATER REPORTS (NO, ROB, WE DON'T GIVE UP DO WE). YOU CAN WRITE THINGS AND PEOPLE TAKE THEM AS GOSPEL. YOU COULD EVEN ORGANISE A SOCIETY PARTY IN A BREWERY WITHOUT SO MUCH AS RAISING A FINGER (WELL, OK, YOU HAVE TO TYPE IT). AMAZING.

YOU MIGHT THINK THAT WE ARE TRYING TO GET RID OF THE JOB. NO. (YOU MIGHT ALSO THINK THAT THIS IS JUST AN ATTEMPT TO FILL UP THE LAST PAGE YES.) DESPITE THE FACT THAT THE SOCIETY COULD NOT EVEN GIVE THE JOB AWAY LAST A.G.M., IT REALLY IS A LOT OF FUN. HOWEVER, WE ALSO HAVEN'T BEEN ABLE TO GET A FULLTIME BROADCAST OPERATOR. VK2TKE AND VK2KHE HAVE BEEN FILLING IN HONORABLY. HOWEVER WE REALLY NEED SOMEONE TO TAKE THE JOB PROPERLY. THE ONLY REQUIREMENTS ARE, SOME TIME ON SUNDAYS, AND A SIMPLE RTTY TELEMETRY SETUP (PETER CAN SHOW YOU HOW...I HAVE NO IDEA). IN EXCHANGE FOR THIS, YOU GET TO BE FAMOUS (OK, OK, IT'S ONLY A MENTION ON THE BACK PAGE). IT COULD BE YOU....

NEXT MONTH'S ISSUE (WOW...WE ARE TALKING PRE-PLANNING HERE) WILL INCLUDE YET MORE TECHNICAL INFO, BECAUSE PEOPLE SEEM TO LIKE THAT. IT MIGHT ALSO INCLUDE A CROSSWORD OR SOMETHING, JUST TO FRUSTRATE YOU EVEN FURTHER. AND OF COURSE, THERE WILL NO DOUBT BE THE REGULAR THINGS THAT POP UP EVERY ISSUE...THE DOTC QUESTION, COMMITTEE REPORT, AND ANOTHER COLUMN BY OUR RESIDENT TECHNICAL "EXPERT". SO, FASTER THAN A VK2ZNS CALLBACK, WE WILL RETURN NEXT MONTH WITH YET MORE WRITINGS TO AMUSE, INSULT AND DELIGHT YOU.

- POST BOX - ALL MAIL CAN BE SENT TO "THE ILLAWARRA AMATEUR RADIO SOCIETY" AT PO BOX 1838, WOLLONGONG, 2500.
- REPEATERS -VK2RAH - 29.620 VOICE HF MT MURRAY RX  
 29.520 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 HILL 60  
 -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 +/- QRM. CALL BACKS TAKEN IMMEDIATELY AFTER. VOICE BROADCAST HELD AFTER WIA RELAY ON 146.850 MHZ (VK2RAW) AND 3.618MHZ +/- QRM.
- 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 HARGREAVE 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 \*\*\*\*\*

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|-----------------|----------------------------------|------------------------------|
| PRESIDENT       | -VK2KWG - KEN GRIMM              |                              |
| SECRETARY       | -VK2KEY - PAT JORDAN             |                              |
| TREASURER       | -VK2KCV - PAT KENNEDY            |                              |
| ASSIST SEC      | -VK2XSV - VIC HEE                |                              |
| TREASURER       | -VK2TKE - KEN GOODHEW            |                              |
| ASSIST TREAS    | -VK2KHE - PETER TOMLIN           |                              |
| COMMITTEE       | -VK2MT - ROB MCKNIGHT.           | - VK2XSV - VIC HEE           |
|                 | -VK2FPN - PETER READ             | - VK2XGJ - JOHN SIMONS       |
|                 | -VK2KCH - BRIAN CLARKE           | - VK2KHE - PETER TOMLIN      |
| REPEATER PRES   | -VK2MT - ROB MCKNIGHT            |                              |
| REPEATER COMM   | -VK2KHE - PETER TOMLIN           | - VK2XLA - GRAEME EAST       |
|                 | -VK2TKE - KEN GOODHEW            | - VK2XGJ - JOHN SIMONS       |
|                 | - TOM JEPSON                     | - VK2KLD - LES DAVID         |
| OSL CARDS OUT   | -VK2JGI - GRAHAM DENNEY          |                              |
| OSL CARDS IN    | -VK2JBS - BILL STONE             |                              |
| PUBLICITY       | -VK2MT - ROB MCKNIGHT            |                              |
| BROADCAST       | -???                             | (YOUR NAME COULD BE HERE...) |
| CARTOONIST      | -VK2AXI - BRIAN WADE             |                              |
| PROPAGATOR ED   | -ZAPHOD (VK2XQX, VK2JBS, VK2JGI) |                              |
| PRINTERS        | -VK2DSH - DALE HUGHES            | -VK2XCC - RAY BALL           |
| SOCIAL DIRECTOR | -VK2XCC - RAY BALL               |                              |
| CANTEEN         | -VK2DYU - BILL CHADBURN          |                              |
| STORE           | -VK2XSV - VIC HEE                |                              |
| TOWER CO-ORD    | -VK2XSV - VIC HEE                |                              |
| DOTC LIASON     | -VK2OB - KEITH CURLE             |                              |
| LIFE MEMBERS    | -VK2ALU - LYLE PATISON           | -VK2OB - KEITH CURLE         |
|                 | -VK2CAG - GRAEME DOWSE           |                              |