

THE PROPAGATOR

ILLAWARRA AMATEUR RADIO SOC. INC

MONTHLY NEWSLETTER OF THE ILLAWARRA AMATEUR RADIO. SOC. INC.
 VOLUME - 88, NUMBER : 5. JUNE 1988
 REGISTERED BY AUSTRALIA POST PUBLICATION NUMBER : NBH - 1491.
 MEETINGS ARE HELD ON THE SECOND TUESDAY OF EACH MONTH,
 (EXCEPT JANUARY) AT 7.30.P.M. AT THE STATE EMERGENCY SERVICES,
 BUILDING, IN MONTAGUE STREET, NORTH WOLLONGONG.
 VISITORS ARE MOST WELCOME TO ATTEND THE MEETING'S.

MAY COMMITTEE MEETING

A well attended meeting had a busy evening with discussion covering many topics.

Dave VK2YKQ/VAV presented a financial report and a breakdown of the operation of FRL.3 & FRL.4.

A review of the printing cost of the propagator showed that the club subscription of \$10 barely covered the cost of newsletter to each member.

The committee decided the Subscription would have to increase to \$12 for ordinary members and the to \$9 for pensioners for the ensuing year. These increases would allow some provision for replacement of the photo-copier which is now four years old.

It was decided the A.G.M. will be held at the July monthly meeting.

Members who have joined since 1/4/88 would receive their membership fee reduced to \$5 for the 1988-89 year the meeting decided Bill VK2DYU advised that club T shirts

ordered by members should be available at the June meeting and some spare shirts have been ordered for the store.

Liason with S.E.S. and the installation of antennas for the club was discussed as was

CONTINUED PAGE 3

VI-88-N.S.W.

Dates for our club use of the Bicentenary Call-sign are from the times 0000.UTC on the 18th June 1988 to 2359.UTC on 24/7/88. Allocations are in three hours segments which allows for 8 operators per day which is 56 per week.

The W.I.A. would like us to operate VI88NSW for the whole 168 hours of allocation. Operation is within the

terms of your licence. If you are on night shift perhaps you could do a few hours after work. Conversely if you are retired a segment during the day would not go astray.

This s a club event so please join in. Don't let I.A.R.S. stand for Illawarra Apathy Radio Society.

Tony -VK2ENX
Broadcast Officer.

THE JUNE MEETING 14TH JUNE 1988

19TH CONFERENCE OF CLUBS

The conference was held at Campbelltown and 10 Clubs were represented. Our Club was represented by Rob VK2MT and Peter VK2BIT. Motions and voting were as follow:

(i). A two year time lapse should occur after death of a previous Call-sign holder or after the renewal date before re-allocation. (Mid South Coast). Voting was 10 votes for 0 against.

(ii). Certified individual examiners for DOTC exams conduct exams in presence of a Justice of the peace. (Westlakes ARC). Concern was that "with the devolution of exams some individuals may seek to gain advantage although appearing to comply with DOTC rules." Voting 10 votes for & 0 against.

(iii). That DOTC should maintain the conducting of exams. (Westlakes ARC) Concern was that "Confusion, malpractice and disadvantaging of some candidates would be eliminated by the conducting of exams at longer intervals even allowing that fees may have to be increased". Voting 7 votes for and 3 abstained.

(iv). Discussion on the future of Amateur Radio "Options and Recommendation Paper" proposed by Hornsby and Dist ARC.

(v). Discussion of forthcoming federal convention as published in A.R. magazine.

(vi). Selection of host club for the 19th Conference of Clubs.

Our Club offer to host this Conference was

accepted by the meeting so the next Conference of Clubs will be held in Wollongong on 5-11-1988. at the S.E.S. building. That concluded the Conference and Rob and Peter said, attendance was an interesting and worth while experience..

FOR PEOPLE WHO WANT QUALITY AND SUPPORT AT A REALISTIC PRICE THINKING ABOUT PC's?

We sell quality IBM COMPATIBLES with SUPERIOR specifications to the original and at much LOWER PRICES.

XT, AT and 386 compatible Computers
All are TURBO machines and have 12 month warranty.

ALL WE ASK IS THAT YOU PHONE US BEFORE
BUYING COMPUTERS, SOFTWARE OR PERIPHERALS.

SOFTWARE

Available: Educational, Real Estate, Milko, Doctor, Hire, Register, Accounting, Sales Monitoring and Programming Languages for IBM and Compatibles

HARDWARE

Available: All peripheral for IBM and Compatibles including Printers, Monitors, Hard Disk and Expansion Cards.

OTHER

CONSULTING, CONTRACT PROGRAMMING & TRAINING AVAILABLE
WE HAVE BEEN IN THE INDUSTRY SINCE 1979.

for your computer needs

PHONE JANSON COMPUTER SERVICES

(042) 61-5451

(042) 615451

(042)-61-5451

MON-FRI : 7.30 PM - 9.30 PM

SAT-SUN: 9.30 AM - 9.00 PM

MAY COMMITTEE MEETING CONTINUED

activation of the emergencies.

For QSL outwards it was decided to use the basic mail service for cards going to the bureau. Ian VK2EXN reminded members that the USA and foreign Call-books are available for information per Ian. This service has

been hardly used and the callbooks are now somewhat outdated.

The meeting decided the Propagator editor should advise the AGM of printing material requirements and an estimate of copier service cost for the coming year.



WHICHEVER WAY YOU LOOK AT IT
YOU CANT GO PAST

MARIONA GARAGE

FOR SERVICE CALL IN AND SEE
PETER CHIECO

For Your :-

- * Electronic tune up * Wheel balancing
- * Front end alignment * Brakes
- * And also Rego Checks.

146 PRINCES HIGHWAY, CORRIMAL

PHONE: 84 5650

F.R.L.4 WINNERS

Week No: 10 N. KOOSACHI
Week No: 11 J. HODKINSON
Week No: 12 D. HENDERSON
Week No: 13 G. PARSON
Week No: 14 J. SIMON
Week No: 15 M. KEECH

~~~~~  
And also for the one's in the F.R.L. 4. Did you know that we had another WIN again with 4 numbers, the sum of \$12.70. Good to see it is trying to go our way. Perhaps the BIG ONE IS NEXT!!!!!!  
~~~~~



I AM STILL WAITING !!!
FOR THOSE PROJECTS. (THE EDITOR)

PACKET RADIO IN THE ILLAWARRA AREA

beneath the escarpment.
(Or packet operations in wollongong!)

If you are not into packet radio then flip the page as all we are going to talk about is the fastest growing side of amateur radio.

The number of packet radio operators has almost tripled over the last twelve months in the Illawarra area and should now start to look at some of the problems that are starting to arise. Our packeteers now cover the area from Woonona (vk2dfk Mike) to Kiama (vk2bes John) with ten other stations in between these locations.

South of Kiama and down to jervis bay is another group of packeteers of approximatly six or seven who also enjoy this mode.

One of the main problems with all stations using the one frequency, in our case, 147.575, is one of packet collisions causing a greater number of re-tries than normally required. The basis for this time domain multiplexing is: Carrier-sensed-multiple-

access (csma) with collision and detection.

This means simply that no stations should transmit if the frequency is in use. The tnc should continuously monitor the used freq. For packet frame flags and will only transmit if no other tx is operative.

NEWTEK-

ELECTRONICS

WE STOCK:

ALARMS - ANTENNAS
BOOKS - BOXES
COMPONENTS-COMPUTERS
HARDWARE - KITS - TOOLS
WIRE AND A LARGE RANGE
OF SEMICONDUCTORS FOR
THE PROFESSIONAL AND
HOBBYIST : 116 CORRIMAL
STREET WOLLONGONG.
(JUST FROM HARP-HOTEL)
PHONE : 27 1620.

To make detection of a busy channel easier to detect, the tnc should send an audio signal (continuous flags) any time that the tx is keyed but not sending data, as during the transmitter-keyup-delay (txdelay).

After sending a packet, the tnc waits a reasonable time (frack) to get the ack from its oposite number. If unacked, the frame is considered lost through a collision and that there is at least one other packet station out there that also lost a frame and will have the same decisions to make as to when to send a retry.

In order to prevent a second collision the protocol calls for the tnc's to wait for a random time after hearing that the freq. is clear before they key their tx's.

There must be a difference in the random times otherwise a second collision will occur. There should be enough different random wait times to provide a reasonable chance of the two stations picking different key-up times.

This brings us to the recommendations for some of the settings of the tnc, here is a list of the main channel usage parameters.

Beacon:	after 45min
dcd:	on
dwait :	500 ms
frack :	4 secs
fulldup:	off
pack length:	128
retries:	8 (5 preferred
resptime:	10
maxframe:	2

These are some suggestions from observing the packet freq. Over the last few months. I hope I have given some of the packeteers out there something to play with and experiment with as it is a most fascinating mode of data transmission.

Another suggestion is if you are in simplex contact is to move off the main frequency for any file transferrs etc to help keep the freq. A little clearer.

If you require any further info or want to input some thoughts or opinions leave a message on the vk2xgj prbbs or give me a call on 146.85 Or 438.225 Most nites.

Cheers, VK2XGJ-John.

REPEATER REPORT -- JOHN VK2XGJ

Well there have been somethings happening on the repeater front lately. I'll let VK2CAG, Graeme, tell it in his own words.

At last!!!

I got to putting 8725 repeater on the bench... the RX was deaf as a post... both BFR91 RF transistors were shot... could find no reason for the failure... so I decided to replace the second stage as per original but modified the first stage with a GA-AS FET, and oh, boy... doesn't it have a set of ears now!!!

Mute can be set to open at 0.1 microvolts, but normal setting about 0.25... a big improvement on the 0.7 that it has always been... It is running on test at the work QTH at present, using a UHF groundplane on TX & a VHF highband dipole on RX... there is about 10db of de-sense which is to be expected because of the close proximity of the aerials.

Next thing to do I suppose is to start thinking about (a) a couple of new antennas or (b) a duplexer. all news for now...

<< Graeme >>

On or around 27th or 28th April during a heavy storm at Mt. Murray the VK2RAW Repeater site sustained a possible Ground strike and put both the Voice and Packet repeaters out of action.

Because of the storm the Pass was closed to all traffic

until after 1100K on the following Sunday. After arriving at the site and doing a general inspection, I found that all of the Negative (Ground) fuses had blown.

After consultation with VK2CAG it was decided to pull the Digipeater and the Battery charging system out and bring it down to the workshop for tests.

This is a list of the damage to those two units:

- 6 transistors
- 2 CMOS chips
- 1 electrolytic cap.
- Umpteen tantalums
- TX driver transistor in digi
- 3 fuses
- 2 zener diodes
- Burnt PC board in digi TXCVR.

The Digipeater was placed back in service by VK2CAG, Graeme, on Sunday 080588 and the Voice repeater brought down to the workshop as all units, TX, RX, ID Unit all needed major work.

Damage to the RX and the ctrl unit... about a dozen transistors, diodes & tantalums mainly... so the repeater functioned as a basic unit with proper noise burst, timer etc... and the PA module fixed although it has a leakage of about 1 milliamp with no drive... not worth changing the PA transistor for that... The ident, the RTTY control decoder and the secondary RX all had faults.

And with that working the main units will be returned to site so we will have

everything working except the ability to relay the WIA broadcast and remote control functions. The HI/LO power bypass module is blown up, but since it has never been used apart from during tests, Graeme doesn't think it is worth the effort fixing it... the rpt'r works fine without it on full power.

The actual cause of the problem will probably never be known only the extent of the damage can give any idea. From all reports the full system from battery charging thru Digipeater and Voice repeater and controlling system, approximately 75 to 85% of components had to be replaced.

I would like to extend a vote of Thanks to Graeme, VK2CAG, on the effort. As I often ask him "Where does your work

So that is the position as at the time of writing. Hope to have the Beast back in its den on the weekend of 28/29th of May.

The ability to relay the WIA B/casts will follow ASAP. Well as this report is being written as events develop I can now say that VK2RAW is back in its den and after a slight false start is giving its usual excellent service.

finish and Amateur Radio take over??

73, de VK2XGJ.

SEMI CONDUCTOR THEORY

Welcome to the first in a series of understanding components and their uses in electronics. In this first series we will look at the TRANSISTOR and how it is used in typical circuits. A basic understanding of electronics and the atomic structure of Germanium (Ge) and Silicon (Si) is assumed.

THE SEMICONDUCTOR DIODE.

To understand how transistors are used in different types of circuits, we must first look at the PN junction diode. In a piece of N type material the majority charge carriers are electrons and the minority charge carriers are holes. In P type material the opposite exists. Minority charge carriers are also known as leakage current.

If a piece of N type material is joined to P type material, a PN junction diode is formed. At room temperature both holes and free electrons are in rapid motion and diffuse across the junction. Some holes of the P type material move across the junction into the N type material and some of the free electrons in the N type material move across the junction into the P type material. But neither the holes nor the free electrons penetrate very

far beyond the junction.

A free electron penetrating the P type material encounters a positive hole and recombines with it. Likewise, a hole penetrating the N type material captures a free electron.

This process generates a force that tends to prevent further penetration. When a free electron leaves the N type material, it disturbs the charge balance of that material leaving behind it, near the junction, an immobile donor atom with an unneutralised positive charge.

Likewise, a hole leaving the P type material leaves, near the junction, an immobile acceptor atom with an unneutralised negative charge. As charge carriers move across the junction, a region of charged atoms is created near the junction. This difference in charge is called the BARRIER POTENTIAL.

The region itself is empty of free current carriers (holes and electrons) and is called the DEPLETION REGION.

The barrier potential is about 0.3v for Germanium and 0.7v for Silicon.

To be able to understand why a PN crystal can be used as a diode, let us connect a battery to the crystal. See fig 1. For a moment we will disregard the minority carriers on either side of the junction. The barrier potential will try to retard the movement of the charge carriers

WOLLONGONG ALUMINIUM CENTRE

Available Ex Stock a Range of ALUMINIUM:-

- * Rectangular Hollows.
- * Round Hollows.
- * Square Hollows.
- * Flat Bars.
- * Channels.
- * Cutting Service Available *

All at COMPETITIVE WHOLESALE PRICES. Suitable for building your own antennas.

Situated At :-
79 Gipps St; WOLLONGONG
Located close to railway crossing.
Phone: 299382 or 285932.

across the junction.

However, the battery will drive the holes and free electrons toward the junction. This means that all the free electrons in the N type material move left and across the junction while new free electrons are injected into the N type material by the battery.

Similarly the holes in the P type material are also driven toward and across the junction while new holes are created by bound electrons leaving the P type material and returning to the positive terminal of the

CONTINUED NEXT PAGE.

SEMI CONDUCTOR THEORY CONTINUED

battery. At this point it is important to note that the battery potential has overcome the barrier potential allowing free electrons to flow in the external circuit.

The diode in this example is said to be FORWARD BIASED.

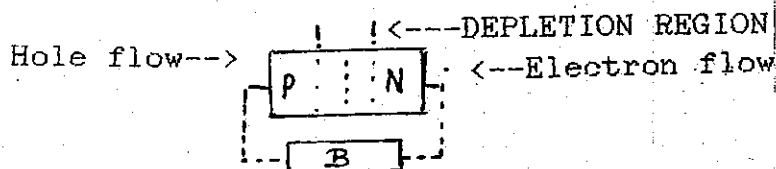
If we reverse the polarity of the battery in fig 1, the holes in the P type material will now move to the left, away from the junction and the free electrons in the N type material will move to the right. When this occurs the depletion region widens and a momentary current

will flow in the external circuit.

However, this current cannot continue indefinitely as there are no new holes or free electrons created by the battery. The battery now aids the barrier potential in preventing further movement of majority carriers across the junction.

Because of thermal energy, some holes in the N type material and free electrons in the P type material are driven across the junction by the battery potential. These are the minority carriers and therefore a small current flows.

fig 1.



de Peter, VK2KHE.

The diode in this example is said to be REVERSE BIASED.

It can now be seen why a PN crystal can be used as a diode. In the next article, we will look at the IV characteristics and attempt to analyse some diode circuits...

73's PETER TOMLIN VK2KHE

—FOR—
COURTESY TO
AMATEURS AND
VALUE
IN
OUR AREA
NOT USUALLY
SEEN ELSEWHERE
WE RECOMMEND!!!!
CAYIONS
11. MOLLOY STREET, BULLI.
PHONE: 042-84-6838
TO ALL OUR CLUB
MEMBERS

ON THE NET

10th May 1988

VK2MT-ROB, Co-ordinator,
VK2EMV-MORRY, VK2ENX-TONY
VK2BIT/6, PETER, VK2PHD-
RAY, VK2EBI-KEVIN.

15th May 1988

VK2KGI-DAVE, Co-ordinator
VK2MT-ROB, VK2EMV-MORRY,
VK2EBI-KEVIN.

And for the other weeks I did not have any information at all, so please for those running the net, could you please pass on the information needed, so I can put it in the Propagator.. < VK2EMV >..

Also some information on the July meeting after next, there will be a DEMONSTRATION on SSTV, and the Guest speaker for this occasion is your's truly the VK2KING - BRIAN WADE. all the way

from Yanco. And as you well know this is a special event with all sorts of thing's to look at in the transmission and receiving of slow scan T.V. and how to go about it all. So for those SSTV EXPERIMENTERS

this will be a very interesting evening to all. So don't forget to keep this evening free, it is on the 12th JULY of 1988... So hope to see a good roll up.

The Editor.

SOLID STATE DEVICES CUT DOWN AIRCRAFT WIRING

The growing problem of placing an intricate maze of electrical wiring within the limited space of an aircraft fuselage has given rise to a new line of thought — the replacement of conventional electro-mechanical contactors by solid state circuit breakers.

At present, all power distribution switching is centralised on the crowded flight deck. In the Jumbo 747, for example, some 500 services can be switched from a massive bank of switches, each backed by a thermal circuit breaker sited on the flight deck.

Each switch controls an individual power cable varying between 5 and 100 amps capacity, and connecting the flight deck power bus-bar to the various services. By siting solid state circuit breakers right on the load, and grouping all adjacent loads on to a single local power bus, the power cabling requirements could be dramatically slashed. Then to operate a distant actuator, the local thyristor could be triggered remotely over a single wire system down which all command signals are digitally multiplexed.

That is the concept, and according to American companies who are most advanced in developing these ideas to

Jaguar. However, the Rotax group has proposed that solid state circuit breakers be used on the Concorde's cyclic de-icing gear.

In the USA, a lot of work has been done and is being done, but has not progressed beyond the development stages. Ling Temco Vaught have a contract to develop a one-off Corsair plane with solid state switching. North American Rockwell have proposed what will be the first of all solid state switching systems for their B-1A strategic strike aircraft. The firms interested in supplying devices on such schemes include International Rectifier in collaboration with Teledyne Westinghouse and Leech.

International Rectifier began their collaborative work with Teledyne back in 1960, and are now in a project specifically directed towards "an advanced electrical system for aircraft".

From the outset switching and control

command signals issued.

All control logic would be engineered in ICs, the ICs high fan-out capability replacing the relays multi-pole capability. Thus a motor would receive a single command to run.

Initially at least, all such signal sensors, such as mechanical position switches, would be all separately gathered together at the flight deck.

But in the latest schemes now being proposed in the USA, information from all adjacent "state" indicators will be gathered together in a remote multiplexing input terminal. This is then linked to a Master Control Unit (MCU) on the flight deck over a single channel system. On command from the MCU the state of each sensor is transmitted serially to the controller. There, switching sequences stored in a non-destruct read-only memory translate this control information into a chain of instructions to the power solid state switches on the electrical distribution system.

To minimise size, hybrid techniques were used and the result was a complete switching function packaged in a one inch cube.

But the very compactness of the package increases the problems of getting rid of the heat. To overcome this, International Rectifier modified the process and geometry of their chips so that they could operate comfortably at a junction temperature of 175 degrees centigrade, instead of 125 degrees centigrade as in their commercial devices.

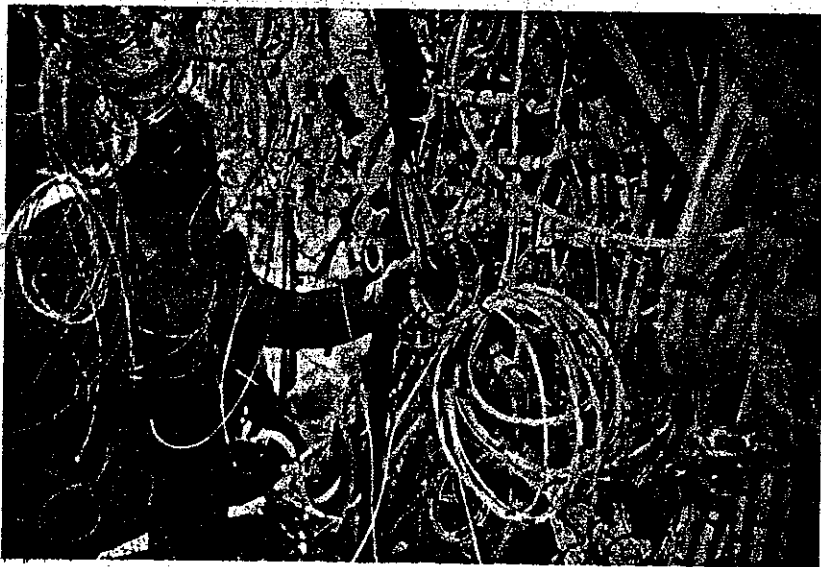
Most solid state switches were built up from 200 ampere power logic triac chips but when a greater power handling capability was required, two power SCRs were used. It's on these chips and their capacity to clear a big fault on the system that the success or failure of solid state systems must rest. The VC 10, for example, relies on four 40KVA alternators for its supply and so could involve fault currents upwards of 2,500 amps.

Even bigger systems are on the way. The Galaxy has 60KVA sets and the B-1A will have four 90KVA sets. Presumably these systems would have to be split if fault levels are to be kept down.

In the UK, it is not envisaged that systems engineers should start by replacing the main contactors on the system. The feeling is that solid state devices will be proved on secondary circuits, where fault levels are not so critical. It's also pointed out that solid state devices will provide a much faster fault clearance time than can ever be obtained with thermal protective devices. This means that the entire protective system speed can be upgraded.

But Teledyne are clear at least that malfunctions can be minimised by opting for solid state devices.

No doubt much safety and reliability data will patiently be built up before solid state devices become commonplace on aircraft systems. But already digital signal techniques have pioneered the way in the advanced multiplex sound system in the 747.



Some idea of the size of the problem which solid state devices may help to overcome can be gained from this photograph, showing the maze of wiring leading to the flight deck of the Concorde. In all, some 150 miles of wire will be required, using conventional techniques.

reality the potential savings are enormous. In the US Navy's A7 "Corsair" carrier-based aircraft for example, it has been estimated that the weight and volume of the electrical cabling and switching system could be slashed by 45 per cent. And in America's supersonic transport two tons could be shaved off the weight of the proposed system.

In the UK, the two leading companies in the field are Rotax and Plessey. Solid state devices have not yet been used in civil aircraft now in service, nor have they been proposed for the Concorde, the RAF's multi-role combat aircraft, or the

signalling were separated out. The solid state switches perform all the functions generally carried out by electro-mechanical switches, relays and circuit breakers.

All signal sources provided digital outputs. For example, landing gear position switches and flap position indicators could all generate digital outputs. More generally, they might be used to sense controlling functions such as temperature, pressure or mechanical motion. Their outputs are individually fed into the control logic unit and here correct switching sequences are generated and

PLEASE RETURN TO PARRAMATTA BY 30th MAY LATEST.

UHF and Microwave band survey. UK2 area

Name

Call sign

The purpose of this survey is to determine the level of use of the UHF and microwave bands prior to WARC 1992. All states have been requested to provide this information and your cooperation in completing the survey will help the amateur radio service to justify these allocations by demonstrating that they ARE used.

Please return the completed form to: Andy Keir UK2AAK, either directly or via the Divisional office of the W.I.A. at P.O. Box 1066, Parramatta 2150, NSW.

	70 cms.	50 cms.	23 cms.	2300 MHz	10 GHz	Other (specify)
FM Repeaters						
FM Simplex						
SSB/CW						
Satellites						
ATV						
Wideband FM						
Other modes (specify)						

If you are ACTIVE on any of the above bands and modes, insert in the appropriate space the average number of hours spent per month operating that band and mode. This figure should include all types of operating, not just transmitting. If, for example, you use 70cm for receiving the downlink of satellites, or 579 MHz for receiving the output of ATV repeaters, include the times spent doing so as operating times.

If you are equipped for any of the band and modes, but are not active, insert the letter "E" in the appropriate space.

If you intend to become active on any of the bands and modes during the next 12 to 18 months, insert the letter "I" in the appropriate space.

If you have any other pertinent information regarding the use of the UHF and microwave bands, include this in the space below:-

READ ALL ABOUT IT

Notices to members

As we are now an incorporated association, you will notice a few minor changes in the running of the club. The most obvious changes are in the committee of management of the club. The Committee consists of 7 people - the four "office-bearers" (pres., vice-pres., secretary & treasurer) and three ordinary members. These 7 are elected at the AGM. Nominations for the positions should be in writing & received before the AGM. As well as the Committee there are six sub-committees and at the AGM, members are solicited for these sub-committees - they need to be balloted only if disputes arise. The chairman of each sub-committee has a vote on the Committee, so the size and composition of the Committee is in essence the same as prior to incorporation.

the same problem occurred (i.e. broke!). At the same time, the concession for pensioners/students was reduced from 50% to 25% (\$9). This means that now those members are at least covering the production cost of their Propagators.

What can you buy for \$12

- .. 2kg. of Roast beef
- .. 1 4-hour video tape
- .. 750ml of Brandy
- .. 1 medium size pizza

OR

- .. 12 months subs to the IARS Inc. - including:
- .. support for 2 x VHF and 2 x UHF repeaters
- .. monthly club broadcast
- .. weekly nets
- .. Propagator posted to your door every month.
- .. rag chew and tea & bickies at the monthly meetings

Note also that a valid nomination must be endorsed by the candidate you nominate, to indicate their acceptance of the nomination.

The Rules

Members are encouraged to read the rules of the association. Copies are available at the general meetings for members to browse, and if a member would like a copy, then ask at the next meeting.

Sub-committees

There are currently six sub-committees:

Repeater:

Propagator: including the editors, printer, cartoonist and distribution organiser.

Broadcast:

Social: including the social director and the canteen manager.

DOTC Liason:

QSL-card: including both the inwards and outwards QSL managers.

Fees have gone up!

Well it was only a matter of time. Annual membership fees have increased from \$10 to \$12 per year. This increase of \$2 is the first since March 1984 when fees jumped from \$7 to \$10. The increase came as a result of budget discussions at

the May Committee meeting where it was decided to start working toward the eventual replacement of our photocopier for the Propagator printing - this will be at least 5 years off, but if we do not start now, we will find ourselves in the same position as we were a few years ago when

Also at the May Committee meeting it was decided that new members who have joined within the last three months should be given a rebate of \$7 towards their 1988-89 subs (i.e. they will only have to pay \$5 this year). This affects three new members.

Nominations

Nominations for the Committee positions should be made in writing on a nomination form included in this Propagator. Spare forms will be available at the June meeting and you should try to have these nominations in by the end of the June meeting.

Members will be asked at the AGM to participate in these sub-committees - remember, many hands make light work!

Notice of meeting

The Annual General Meeting of the Illawarra Amateur Radio Society Inc. will be held on Tuesday, July 12th 1988 at the SES headquarters, Montague St., North Wollongong, commencing at 19:30 hrs., at which time the election of the Management Committee for the 1988-89 financial year will be conducted.

73 david de VK2YKQ

MAY MONTHLY

MEETING.....

The May monthly meeting was attended by 31 members and visitors.

Keith presided and the speaker for the meeting was Denis VK2DMR who has recently returned from a period of 2 years living and working in Connecticut USA. Denis spoke on amateur radio in the US and on conditions for living there compared with VK.

Points to emerge were:

There is still a surprising amount of A.M. on 160.m. and other bands and 160.m. is very much alive.

Five classes of ham license are used, Novice, Technician, General, Advanced, and

extra.

Reciprocal licenses of extra class are

obtainable on our full call without much hassle.

High power is almost mandatory on 160.m and 2KW is a modest power level amongst the big boys.

Denis could access 20 repeaters from his QTH with a handheld.

Telephone services are cheaper and more versatile than ours. Repeaters provide facilities not available here including linking, phone patching ect.

The wild bunch sounds an interesting group on the 160.m. net on the East Coast. A

horse traders net on Sunday nights, sounds like a useful and fun way of finding Ham'gear.

A traffic net provides an efficient message service using Hamgrams. White stick operators are more in evidence in the U.S. one net controller is a blind YL operator and on another net, five blind YL operators were active.

Prices of many household items are lower in the U.S. Our climate is kinder than that of Connecticut and very much milder than that of Maine where Denis found temperatures of -17 for nine days straight.

It is hoped Denis may give another talk at a later date as keen interest was shown by members with plenty of questions being asked. The meeting closed with the usual cuppa.



ALL.....
MECHANICAL
REPAIRS

423 PRINCES HWY
CORRIMAL

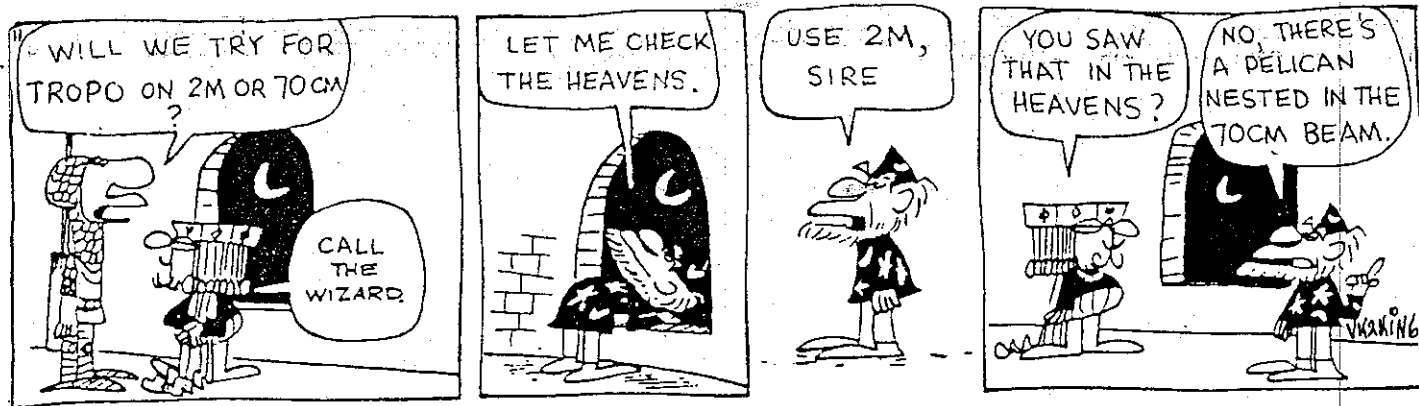
MAZCARE

84-4359

SPARES REPAIRS
SERVICING ALARMS
WHEEL BALANCING
AIR CONDITIONING
TOW BARS TOWING

COAST-WIDE
COMMUNICATIONS

LOT B. LAWRENCE-
HARGRAVE DRV. THIRROUL
WE STOCK: CB RADIOS
CB AERIALS - COAX CABLE
MARINE RADIOS
TV - AERIALS, ETC, ETC.
SALES AND SERVICE
OPPOSITE THE
SHELL - GARAGE
PHONE : 67-2134.
« VK2KWN »
WAYNE NEWPORT



YOUR FEE'S FOR 1988-1989 ARE NOW DUE

WANTED

TAPE DECK INCLUDING THE
SPINDLE & SPROCKETS FROM
AN OLD STYLE PHILLIPS
TAPE VIDEO CASSETTE RE-
CORDER. IF YOU CAN ASSIST
PLEASE CONTACT PETER...
UK2KHE ON PACKET OR ON
VOICE UK2RAW OR LEAVE A
MSG ON UK2CAG BBS OR ON
UK2XGJ < BBS > JOHN
TNX PETER UK2KHE

WANTED

COMMUNICATIONS RECEIVER.
FRG 7, 7700, KENWOOD -
R1000 OR SIMILAR. IN GOOD
COND.
REASONABLE PRICE PAID.
JOHN UK2FCW...
PHONE 26-3158.

The Illawarra Amateur Radio Society Inc. Nomination Form for Election to the Committee

I _____ a member of the Illawarra
Amateur Radio Society Inc. 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 Inc. second the above
nominations for the Committee vacancies.
dated: ____/____/1988



THE ILLAWARRA AMATEUR RADIO SOCIETY. INC.



P.O. BOX 1838. WOLLONGONG. 2500. N.S.W.

MEETINGS: Are held every 2nd Tuesday of the Month except January, at 7.30.p.m. in the S.E.S. Headquarters, Montague street, North Wollongong.

REPEATERS:

VK2RAW - 146.850. - (VOICE)	VHF Mt Murray.
VK2RAW - 147.575. - (PACKET)	VHF Mt Murray.
VK2RIL - 147.275. - (VOICE & R.T.T.Y)	VHF Sublime Point.
VK2RUW - 438.225. - (VOICE)	UHF Hill 60 Port Kembla.
VK2RIL - 438.725. - (VOICE & R.T.T.Y)	UHF Sublime Point.

BROADCAST: On Sunday evening prior to the club meeting, at 7.00.p.m. R.T.T.Y. Mode Transmitted on 147.275.VHF, and relay on 3.562.Mhz. +/- QRM. Callbacks taken immediately afterwards. The voice broadcast will be held straight after the WIA Broadcast on 146.850.Mhz < VK2RAW > and 3.562.Mhz +/- QRM.

W.I.A. RELAY: On 146.850. at 10.45.am. and at 7.15.p.m. each Sunday.

CLUB - NETS: On 3.562.Mhz. SSB +/- QRM on Sunday at 8.30.p.m.

NEWSLETTER: "THE PROPAGATOR", published Monthly to reach FINANCIAL-MEMBERS in the week preceeding the club meeting. All articles, adds etc, to the editor must be in, or try, by the 3rd Tuesday each month.

MEMBERSHIP: The Secretary, I.A.R.S. Inc, P.O.Box.1838. Wollongong. 2500. Full membership is \$10 per annum; students & pensioners concessional members \$5 per annum.

AWARDS: The Award of the Illawarra Amateur Radio Society. Inc. is the LAWRENCE-HARGRAVE-AWARD. VK stations require 10 contacts with I.A.R.S. members. Overseas stations require 5 contacts with I.A.R.S. members. A contact with VK2AMW is sufficient for the award. Band-details, date, frequency, station worked and \$2 or 4 I.R.C.'s. to THE AWARD-MANAGER, I.A.R.S. Inc, P.O.Box. 1838. WOLLONGONG. 2500. No QSL-CARD is required.

STORE: The club store operates at each club meeting. by COMMITTEE-MEMBERS.

COMMITTEE:

PRESIDENT:	VK2DYU- BILL CHADBURN. 45 Beltana Ave, Dapto.
VICE-PRESIDENT:	VK2OB - KEITH CURLE. 24. Beach Drv, Woonona.
SECRETARY:	VK2JTB- TOM BROWN. 10. O'Keefe Cr. ALBION - PARK.
TREASURER:	VK2VAV-YKQ-DAVE HENDERSON. 8. Gladstone st. Bellambi.

GENERAL-COMMITTEE: VK2MT - ROB McKNIGHT, VK2BIT - Peter Woods, VK2XCC/PHD - RAY BALL.

REPEATER - CHAIRMAN: VK2XGJ - JOHN SIMON.

REPEATER - COMMITTEE: VK2CAG - GRAEME DOWSE, VK2EXN - IAN CALLCOTT, VK2EMV - MORRY. v. d. VORSTENBOSCH. VK2DFK-MIKE KEECH, VK2MT-ROB McKNIGHT, VK2BIT-PETER WOODS, VK2TPH-PHIL HOWCHIN, VK2XGJ-JOHN SIMON; VK2FCP-FRED BROWN.

QSL-CARD'S OUT : VK2EXN. - IAN CALLCOTT.

QSL-CARD'S IN : VK2BIT - PETER WOODS.

PUBLICITY - OFFICER: VK2VAV/YKQ - DAVE HENDERSON

BROADCAST - OFFICER: VK2ENX - TONY MOWBRAY. VK2ALU LYLE PATISON.

CARTOONIST : VK2AXI - BRIAN WADE.

PROPAGATOR-EDITORS : VK2JT - JOCK TAYLOR, VK2EMV - MORRY. v. d. VORSTENBOSCH, VK2KGI - DAVE CAPON.

PRINTERS : VK2DFK - MIKE KEECH. AND POSTED BY VK2BIT - PETER WOODS.

SOCIAL-DIRECTOR : VK2XCC/PHD - RAY BALL. D.O.C. LIASION VK2OB - KEITH CURLE.

CANTEEN-MANAGER : VK2DYU - BILL CHADBURN.

LIFE - MEMBERS : VK2CAG-GRAEME DOWSE. VK2OB-KEITH CURLE. VK2ALU-LYLE PATISON

SUNDAY - EVENING - CLUB-NET - ROSTER: STARTING AT 8.30.p.m.

8.30.p.m. FIRST SUNDAY OF THE MONTH : VK2MT - ROB McKNIGHT.

2nd SUNDAY OF THE MONTH : VK2ENX - TONY MOWBRAY.

3rd SUNDAY OF THE MONTH : VK2KGI - DAVE CAPON.

4th SUNDAY OF THE MONTH : VK2PHD - RAY BALL.

5th SUNDAY OF THE MONTH : VK2EBI - KEVIN MURPHY.

And on stand-by : VK2DUP - GRAEME PARSONS.