



# 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 #89, Number 9

September 1989

### WHAT'S THIS ??

The Propagator is being sent to all amateurs in the Illawarra this month. We want to expand the membership of the IARS and increase the amateur activity in the area. Next month the Propagator will ONLY go to FINANCIAL members.

If you have not paid your subs, I sell blackmarket copies for the very reasonable price of \$4.50 (postage included).

\*\*\*\*\*

### EDITORIAL COMMENT

Welcome to all our new readers this month.

To all REAL AMATEURS, I say

N I C E T O  
S T A V E O M P  
D N A Y C O M P

The IARS newsletter is produced each month and sent to financial club members. In an endeavour to improve Amateur radio in the Illawarra we are looking for new members. If you have any questions, you can contact one

of the committee listed on the back page. Phone numbers will be in the local phone book. You are welcome to come to our meeting at the SES building in Montague St. Nth Wollongong at 7.30 pm on Tuesday 12th Sept.

\*\*\*\*\*

### \$\$ DONATION \$\$

One of our members Bill, VK2JBS has organised a donation of 12 \* 225 ah \* 2v batteries. These are ideal for Mt. Murray and should solve that problem for the next 50 years. Thanks a lot Bill. (By the way, you couldn't 'liberate' an IC 781 for the club station could you?)

\*\*\*\*\*

### \$\$ WANTED \$\$

VK3ZCS is currently staying in Mittagong for a month or so and is looking for a economical hand held and a similar general coverage communications receiver. No need for 80 or 160M but open to offers. He listens fairly regularly to VK2RAW so give him a call if you can help out.

\*\*\*\*\*

One good thing about being editor is that I can say what I think. One thing I don't like is not replying to a CQ call. I know it's a nuisance to have to converse with a stranger, or someone you know who talks too much, and you don't have the time (great excuse hey!!) but I was under the impression that there was a special bond between amateurs. It's no hardship to reply to a CQ and talk for 5 mins & say you have to go. It might be OK for Sydney to be unsociable, but why should we?

\*\*\*\*\*

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(Opposite the Shell Garage)**

**Wayne Newport  
VK2KWN**

The definition of a stranger.

A friend you haven't met.

\*\*\*\*\*

**DEADLINE**

Please let me have all your gossip for the Propagator by the 1st Friday before the 2nd Monday before the meeting which is on the 1st Tuesday before the committee meeting on the 3rd Tuesday in the month. (Assuming that month isn't January).

\*\*\*\*\*

**DOTC QUESTION**

The answer to last months question was 'C'. My guess of 'E' was obviously wrong.

This month we ask you ....

The "Gain Bandwidth Product" of a transistor is the:-

- a) Frequency at which the gain becomes unity.
- b) The ratio of the base current to the collector current.
- c) Range of frequencies which can cause partial or complete phase shift.
- d) Ratio of output impedance to input impedance
- e) I haven't a clue.

\*\*\*\*\*

**OCTOBER MEETING!**

Just a reminder about the meeting next month. We hoped to have some new rigs on display. Unfortunately, this couldn't be done so we'll have a mystery meeting. (It's a mystery to the committee too so we'll all be surprised!).

## WHO ARE YOU

I don't know about the rest of you, but I can't remember names and it's embarrassing saying hey you or VK2???. John VK2XGJ (him I know!) can get some name badges made for about \$8 each. They have the club initials and logo and are very good. John, Peter VK2KHE and I have one so if you like them, please order one. If it's too pricey, why not buy the plain ones with just your name for about \$4.

\*\*\*\*\*

## TALKER

We all know one or two operators down here who are very quick on the button and don't leave a pause between overs. Well, I answered a CQ the other night and he beat our fellows hands down. He started talking even before I let the button go, and eventually timed the repeater out!

\*\*\*\*\*

## S.E.S. Packet Demonstration

On Wednesday 16/8/89 a packet demonstration was held at the S.E.S. headquarters, Montague St, North Wollongong. The object of the exercise was to show the potential of packet radio during a disaster or emergence. The demonstration was attended by various rescue and emergency organisations including the NSW Police and commenced with the Apple computer refusing to talk to the TNC, but after much perspiration and tearing of hair, the system was fixed and data transfer commenced with

various link stations. In general the evening was a great success and the various bodies were impressed to the point of organising an exercise in October this year. Many thanks to the attending stations of John VK2XGJ, Peter VK2KHE and link stations Graeme VK2CAG and Phil VK2TPH.

\*\*\*\*\*

## Club Broadcast

Callbacks on RTTY broadcast:  
VK2XGJ John, VK2EMV Morry,  
VK2KCV Pat

80  
VK1KAG ?

Metres:

Voice:  
VK2TPH Phil, VK2JBS Bill, VK2XGJ  
John, VK2ZNS Noel, VK2XNH Steve,  
VK2EXN Ian, VK2XLA Graham,  
VK2EMV Morry, VK2KCV Pat, VK2AD  
Bill, VK2ZDM John, VK2EZF Andrew

To date there is no information regarding the 80 Metre net.

\*\*\*\*\*

## THANKS

There is a firm called VIMCOM at the bottom end of Kenny St in Wollongong who deserve looking into. Next time you need any radio parts I suggest you look into them. They have been very helpful and have donated the remaining parts we need to construct the POWER SUPPLY for the Club Station. Bearing in mind that all we have is the transformer (thanks RAY VK2XCC) the offer from VIMCOM is terrific. Give them a try for electronic bits and pieces.

Today is Wednesday and I'm going to tell you about last night's meeting. Yes! I know you were there but it's taking me a long time to write this so you had better read it. We were a little late starting but it wasn't a problem as everyone was interested in the 10M repeater. This was constructed by Rob VK2MT, Peter VK2BIT and Ralph VK2IU with help from a lot of unnamed people (isn't there always). I can't express enough how indebted we are to these operators. They are the proud possessor of the ONLY 10M repeater in NSW and the 2nd one in Australia. There is one in Melbourne that cost about \$9,000. The estimated cost of their home brew rig is about \$20,300. The parts cost \$300. The \$20,000 is the estimated cost of their time involved. A FANTASTIC job fellows. Thanks a lot. I won't tell you 'non-attendees' of all the 'special' features it has as we want those for ourselves. Apparently, there is only one repeater per state. I guess the Sydney boys won't be too impressed!! Just goes to show that 'doing' beats 'wishing'!!. There will be articles in AR and ARA and WIA broadcast so you can find out about it. Please give a BIG thanks next time you see these fellows. Heaven knows there are enough of us doing nothing; it's good to see someone doing something.

\*\*\*\*\*

## ADVERTISERS

If you've read this far, you'll notice that there some ads. The people who pay for them are subsidising our club. I hope you are subsidising their business. To the advertisers, I say thanks and if you want your ad altered, just send me the new copy and I'll fix it.

# Calling All Amateurs

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\*\*\*\*\*

## WANTED

Remember those lamps with the bubbles that rise and fall? Good! I want to buy one. I'll pay \$40 for the large one or less for the small version.

\*\*\*\*\*

## POMMIE

Our resident Pommie, Ray VK2XCC is contemplating quitting the TV servicing business. (Call him if you need yours fixed). He saw the quote to repair the photo copier. Would you believe the charge is around \$85 per hour for labour plus parts !!!!!

THANKS

Heard VK2XNH on 2M the other saying how impressed he was with the club meeting last month. It's nice to have some praise and complements instead of the negative thoughts that have been circulating lately. Maybe a Positive Mental Attitude is what is needed! Ever noticed that if someone is down in the dumps, it tends to bring you down as well, and likewise if you meet someone who is happy, it tends to rub off on you. I use the same principle on myself. If anyone asks me how I am, the reply is 'FANTASTIC' or something similar. Try it, you'll find it works.

\*\*\*\*\*

#### PACKET

Yes Ray VK2XCC, another article for you to skip!

Our packet professional, John VK2XGJ, and Peter VK2KHE gave a demonstration of packet to the top brass of the SES and Police one Wednesday last month. It is a follow up to a previous demonstration that had everyone impressed. The main advantage of packet is security, as it is difficult to interfere with packets. Good one John, keep up the good work.

\*\*\*\*\*

#### Minutes

These are the brief minutes of the August General Meeting.

1. The usual apologies, mail, QSL cards, newsletters, etc. One item worthy of note was the on the spot fines for using radio telephones. This could also apply to microphones. Might be a good idea to look at 'hands free operation' just in case.

Our treasurer, John VK2XGJ reported the club is in a

reasonably healthy position which gives us incentive to do more.

Pat VK2KEY wanted to know DOTC's attitude to mobile operation. I phoned them up and they said it was a police matter and nothing to do with them.

Official quote for the copier repair is \$587 with \$800 being offered as a trade-in on a new one.

Mike VK2DFM wanted to know why VK2RIL (our 70cm repeater) wasn't operational. A long tale was told and the committee will discuss it.

Bill VK2JBS can obtain some 2 v batteries for the repeater. (Thanks a lot).

Graeme VK2??? suggested we advertise through radio & TV free services once we have the club station operational. This will increase membership.

Pat VK2KCV offered the club the use of a TS520S for the club station (Thanks a lot ... ed).

Roger VK2AIV brought along some items and we had a mini auction. VK2XCC Ray purchased the transformer and donated it back to the club station.

The highlight of the evening was the demonstration of the 10M repeater constructed by Rob VK2MT, Peter VK2BIT and Ralph VK2IU. A FANTASTIC job fellows.

We closed at 10pm, which was rather later than normal, but it was a good meeting.

\*\*\*\*\*



"I had to laugh when she walked out and said I wouldn't be able to cope."

ARE YOU HERE?  
 Here is a list of  
 FINANCIAL members as  
 at 31/08/89. If your  
 name is not on this  
 list, you will not  
 receive the next  
 PROPAGATOR. What a  
 disappointment !!!!!  
 The fees are \$12 or  
 \$9 per annum. See  
 our Treasurer John  
 VK2XGJ

VK2AD W Furneaux  
 VK2IU R Buono  
 VK2MT R McKnight  
 VK2OB K Curle  
 VK2AGV R McIntosh  
 VK2AIV R Graham  
 VK2ALU L Patison

VK2BHO J Hodgkinson  
 VK2BIT P Woods  
 VK2BOZ C Proctor  
 VK2CAG G Dowse  
 VK2DFK M Keech  
 VK2DSH D Hughes  
 VK2DYU W Chadburn  
 VK2EBI T Murphy  
 VK2EJH J Hayes  
 VK2EMK  
 Manning-Knight  
 VK2EMV M Van De  
 Vorstenbosch  
 VK2ENX A Mowbray  
 VK2EWJ J Woodward  
 VK2EXN I Callcott  
 VK2FCW J Delahunty  
 VK2FPN P Read  
 VK2JBS W Stone  
 VK2JJJ B Rewak  
 VK2JTB T Brown  
 VK2KCV P Kennedy

VK2KEY P Jordan  
 VK2KHE P Tomlin  
 VK2NDR J Lyons  
 VK2NNJ E Lawer  
 VK2PHD R Ball  
 VK2TPH P Howchin  
 VK2VAV D Henderson  
 VK2XAN P Laughton  
 VK2XBC C Stevens  
 VK2XCC R Ball  
 VK2XGA G Mueller  
 VK2XGJ J Simon  
 VK2XHN K Grimm  
 VK2XLA G East  
 VK2XNH S Johnson  
 VK2YKQ D Henderson  
 ----- V Hee  
 ----- R Hanks

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I know you have framed last months Propagator and hung it on the lounge room wall so there's no need for me to remind you that we are having a

## COMPUTER DISPLAY

this month. Currently there are three of us who will demonstrate what we do with our computers. If you can help us by bringing along your computer, please give one of the committee a call.

\*\*\*\*\*

## WIA

Have just received my copy of AR, the WIA magazine. For those of you who aren't members, I suggest you join. Membership fee is currently \$41.40 which includes the magazine and is good value. There is a lot of interesting reading, including 6M and new exam procedures. It's also a good idea to support those who support us.

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## THOUGHT

If you put a slice of bread on one ear and another on the other, are you a HAM sandwich?

\*\*\*\*\*

## HELP!

Ever been in the situation where you needed help, and had to look into the yellow pages and take a punt on what/who you got. I think it would be a good idea if 'someone' assembles a list of our members and what they do, and what contacts they have. My entry would go along the lines ..... Brilliant genius. He knows everything and able to do anything!

Maybe that should read 'Knows nothing and does even less!'

Jeff VK2EWJ has the following items for sale. I expect by the time you read this, some of them will be gone, but if you were at the meeting, you would also have had the chance. Anyhow, here's the original list.

Knwood TS520 & spare finals \$550  
E.A.T. Antenna tuner \$180  
Model 400 Kenpro rotator \$300  
Kenwood 30a low pass filter \$80  
Colour bar generator CM6037 \$160  
New WIA correspondence course --  
Radio 1, 2, 3. for \$40

Jeff can be contacted by radio or land line on (044) 43-0070. Jeff didn't say so, but I expect he'll accept a reasonable offer.

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COMMITTEE MEETING

Members are reminded they are quite welcome, and in fact encouraged to participate in the committee meetings. This is what happened at the August meeting:-

We are unable to find any supplier to demonstrate a range of radio equipment. We'll have to find something else for the meeting nights.

Peter VK2BIT may be able to assist with the repairs of the photo copier. SES offered us the use of their copier. Ken VK2XHN could also help with the printing.

Welcome to new club members Bill VK2AD, Steven VK2XNH, R. Hanks and John VK2NDR.

VK2EMI will be asked to build two antennae for VK2RIL.

Insurance is required for the club station equipment.

New solar panel is to be purchased for Mt. Murray.

Meeting closed at 21:40.

\*\*\*\*\*

FUNNY

It may be an oldie, but I heard Phil VK2TPH mention a 'crocodile' radio. I laughed when I heard that it was one with all teeth and no ears.

\*\*\*\*\*

GROUP

There were four Wing Commanders sitting down and one commented how unusual it was for so many Wing Commanders to be in the same place at the same time. "A group of fish is a school, and elephants have herds and people have crowds. I wonder what a group of Wing Commanders is called" asked one

of them. A voice of a lowly private close by said "How about a FLUSH of WC's".

\*\*\*\*\*

COMMUNIQUE

I don't know how to spell the title, but it's pronounced KOM-U-NIK-AY. Anyhow, received a message via VK2XGJ packet radio from Morry VK2EMV with a lot of comments and questions. My comments to his comments are in brackets.

Where is the questionnaire? (that's an embarrassing question so I won't mention it). The Propagator is hard to read with writing so small ( I agree so I've made it larger this time). No names of members running 80 meter net (oops!!). Fred VK2FCP is now VK4CHY. (deserter!). VK2NDR has been waiting 6 months for an IARS membership form (who said we're slack?). No VK2KING cartoon. (no one gave it to me). Info re on-the-spot fines. (That's bad news so forget it).

Thanks for that Morry. Helps to fill the pages.

\*\*\*\*\*

80M NET

It appears we have no volunteers to co-ordinate the 80M net so it may be dropped due to lack of use. What has been proposed to replace it is a 2M net. Not quite the same, but...

Your comments are invited, or in other words "What the hell do you want?"

\*\*\*\*\*

Frl #6 Winners.

Week 1 commenced on Mon 14/8/89.

Week 1. Number 16. Not taken.  
Week 2. Number 44. Not taken.  
Week 3. Number 20. K. Grimm.



Here is a list of the lotto numbers. We have 8 games per wk at a cost to you of \$1 per wk. It helps the club finances.

LOTTO ST 2100460B9A  
MON933 25WK

1:08 12 16 21 28 32  
2:03 07 16 27 35 39  
3:04 09 21 26 34 36  
4:15 18 27 31 32 36  
5:01 02 14 17 19 25  
6:07 10 19 26 33 39  
7:08 09 10 19 23 29  
8:03 13 16 23 24 25

13C2 1280 6848 9006  
\$51.20 11AUG89



\*\*\*\*\*

WHAT WOULD HAPPEN?

I know death is not a pleasant subject, but let's talk about it. I was listening to a VK5 on 10M recently and he was talking about what happened to Radio gear when an Amateur became a silent key. Examples varied from being sold to the local 2nd hand shop to sold for a song, as the real value was not realised. What would your spouse do in the circumstances? Maybe she/he should be given the phone number of your best mate so you could be sure the right thing would be done.

\*\*\*\*\*

DEATH

Sorry I'm morbid at the moment, but when you die, what happened to your belongings? If you haven't made a will, the GOVT can end up owning them all!!!!!!  
(Guess who this is meant to stir up VK2XGJ?)

Close you eyes Ray, this isn't meant for you.

With modes of transmission altering, I think we should become more involved in Packet Radio. (Yes John, I know I'm not on air yet!!). Our resident expert John VK2XGJ has offered to write a column. (At least I think I told him he volunteered to write one). John currently runs a Packet Bulletin board that can be used as a mail / information point. I won't say any more because later in this newsletter, you'll see John's article, or the blank column where it's supposed to be!

See Jack at

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This is a brief run down of last month's production of the Propagator. Just before the end of the month, we decided we had better get to work as there was only 2 1/2 weeks to go. No Probs! Until we realised that the meeting was on the 8th Aug which didn't leave us much time, so we raced around getting articles etc and were all set to do it on Monday, ready for folding etc on Tuesday. Bad News arrived on the Saturday. Our photo copy m/c had broken down! A nice thing to find out two days before it was due to be printed!! This was our first issue and due to lack of time (good excuse that one!) we weren't completely organised. Luckily, VK2KHE, VK2XGJ and myself were rostered off so we spent all Tues writing articles, learning how to run the word processor and doing the printing. We had a panic call or three from VK2XCC as he had to post them (which is a story in itself). However, it all turned out reasonably well, although the quality and content still has a long way to go. I won't mention the errors on the back page as no one reads that anyway! This issue should be better. I say should, because I have to write this before I print it (see me later Phil and I'll explain why it has to be written first) so I don't know if it is better!!

Now a few words on my idea of the format of Propagator. I want to make it a more personal club newsletter with less construction type articles and more newsy (what a terrible word) type articles. However, as you can see, I like rambling on and adding comments in where they don't belong so if there is no input from the members (YES! That's you I'm talking to), I'll just have to fill the space with waffle. (No!!! Harry, that's not food!).

From the 'I don't believe it Dept'.

I had a phone call from VK2XGJ the other day. "Why didn't you use the radio." I asked?

'Couldn't be bothered' was the reply!!!!!"

\*\*\*\*\*

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WORKING

Good to see that our committee are doing the job. Rob VK2MT had information on the WIA broadcast about the Club elections. Keep up the good work Rob.

# DOUBLE DELTA BEAM

L. H. Vale VK5NO  
29 Carlton Rd., Gawler, S.A. 5118

A new and unique antenna is described by one of our regular contributors. It may not be as elegant in appearance as a Yagi, but it is no less graceful in appearance than a quad. It is sturdy and probably equal in performance to any rotatable beam available to the amateur today.

The double delta antenna is the result of attempts to make a beam that would be able to be put single-handed onto the top of a fifth floor TV tower that could be let down to the ground almost along the ground; it was hoped that such an antenna could be made simply and cheaply without sacrificing performance. A beam was first made of 15-metres and results were so good that, after a month, it was taken down and replaced by a 20-metre model. A month or so later that again was taken down and the 15-metre beam, with a slight modification, was put inside the 20-metre beam and they were both fed from the same coax and coax balun. So far attempts to put a 10 metre beam inside of the other two to make a tri-bander have not been successful, because of interaction effects.

However, after a year and some necessary mechanical improvements, the beam is still in frequent use.

The main disadvantages of the beam are its size and the fact that it is bi-directional; that is, it has a front-to-back ratio of 1:1. I have not found the bi-directionality to be objectionable; rather I find it quite an asset, but no doubt it would be quite unacceptable to some.

It is presented as being an original idea with the hope that others may be interested enough in it to improve on it.

In plan view, the overall dimensions are about the same as a two-element Yagi but like a Yagi it has a vertical dimension also; in this case about 0.4 of a wavelength, as against the quad's 0.25 wavelength.

Fig 1 is a schematic diagram of the antenna. Two deltas or triangular elements, each with sides of half a wavelength, are mounted with their bases parallel and horizontal and their apexes at a common point vertically above the centre-point of the base rectangle. At the common apex point the delta-sides from diagonally-opposite corners are connected together. The feed point is midway along one of the base sides. The antenna radiates perpendicularly to the base sides, with a figure 8 pattern in the horizontal plane.

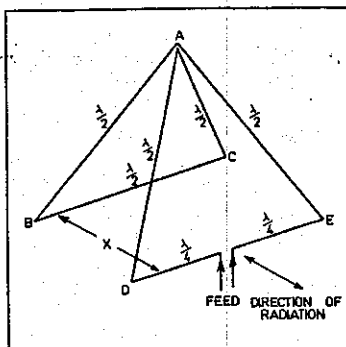


Figure 1:  
Schematic diagram of Double Delta Beam

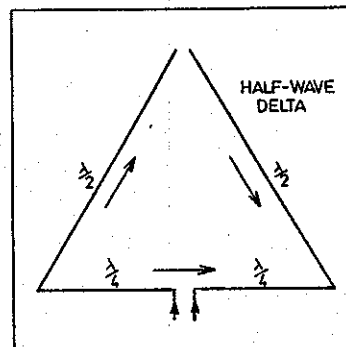


Figure 2A: Delta Antenna Configuration

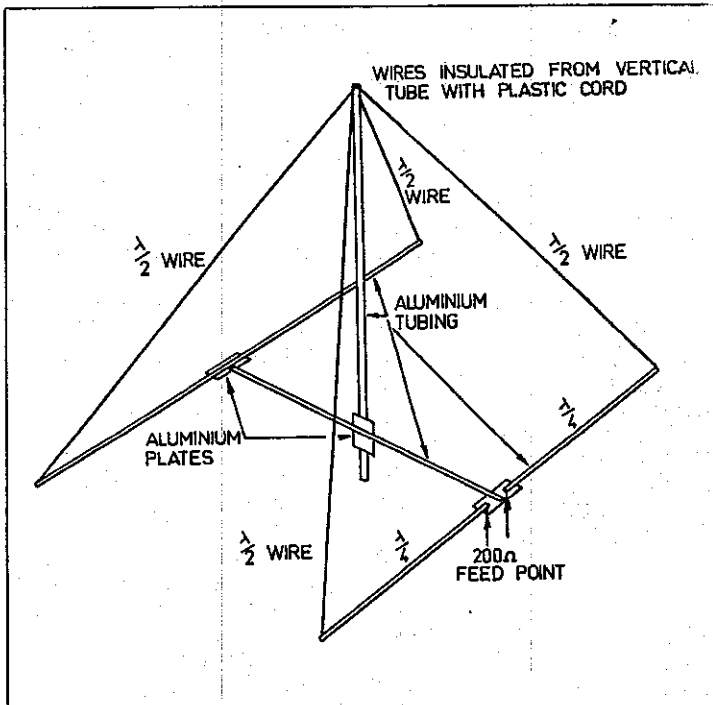


Figure 3: First Constructional Method

The impedance at the feed point varies with the dimension X. With X = 12 feet for 15 metres (18 feet on 20 metres) the

feed point impedance is close to 200 ohms, allowing a balun to be used to obtain a low SWR on 50 ohm coax feed cable.

**Meetings**

are held every second Tuesday of the month except January at 7.30pm in the SES Headquarters, Montague St. Nth Wollongong.

**Repeaters**

VK2RAW - 146.850	Voice	VHF	Mt. Murray.
VK2RAW - 147.575	Packet	VHF	Mt. Murray.
VK2RIL - 147.275	Voice & RTTY	VHF	Sublime Pt
VK2RUW - 438.225	Voice	UHF	Hill 60 Pt K
VK2RIL - 438.725	Voice & RTTY	UHF	Sublime Pt
VK2RAH - 29.520/.620	Voice	HF	Knights Hill

**Broadcast**

is on Sunday evening at 6.45 pm. RTTY mode transmitted on 147.275 and relay on 3.562 Mhz +/- QRM. Callbacks taken immediately after. Voice broadcast held after WIA broadcast on 146.850 Mhz (VK2RAW) and 3.562 +/- QRM.

**WIA Relay**

is on 146.850 at 10.45 am and 7.15 pm each Sunday.

**Newsletter**

is published monthly to reach all financial members in the week preceding the club meetings. Articles and letters are welcomed.

**Membership**

costs \$12 per annum. Concessions at \$9.

**Lawrence Hargreave Award**

VK stations require 10 contacts with I.A.R.S. members. Overseas stations require 5 contacts. One contact with the club station VK2AMW is suitable. Details of contacts to be sent to secretary.

**Store**

The club runs a store each meeting where the unusual and hard to obtain hardware may be purchased.

\*\*\*\*\* COMMITTEE \*\*\*\*\*

**President:**

VK2KHE - Peter Tomlin 30 Kotara Cr Unanderra.

**Vice Pres**

VK2FPN - Peter Read 43 Bright Pade. Dapto.

**Secretary**

VK2TPH - Phil Howchin 12 Mawarra Dve. Dapto

**Assistant Sec.**

VK2KCV - Pat Kennedy

**Treasurer**

VK2XGJ - John Simon 14/42 Brownsville Av Bville

**Assistant Treas**

VK2YKQ - Dave Henderson

**Gen. Committee**

VK2KEY - Pat Jordan VK2KCV - Pat Kennedy

**Repeater Pres**

VK2XGJ - John Simon

**Repeater Comm**

VK2CAG - Graeme Dowse VK2EXN - Ian Callcott

VK2MT - Rob McKnight VK2FCP - Fred Brown

VK2EMV - Morry van der Vorstenbosch

**QSL Cards out**

VK2IU - Raffael Buono

**QSL Cards In**

VK2JJJ - B Rewak

**Publicity**

VK2MT - Rob McKnight

**B'cast Officer**

VK2KHE - Peter Tomlin

**Cartoonist**

VK2AXI - Brian Wade

**Propagator Ed**

VK2FPN - Peter Read

**Printers**

VK2DSH - Dale Hughes VK2XCC - Ray Ball

**Social Director**

VK2XCC - Ray Ball

**Canteen Manager**

VK2DYU - Bill Chadburn

**Store Manager****DOTC Liaison**

VK2OB - Keith Curle

**Life Members**

VK2CAG - Graeme Dowse VK2OB - Keith Curle

VK2ALU - Lyle Patison