



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.

Vol 90, Number 4

April 1990

EDITORIAL COMMENT

I've just had a nasty surprise. Today is the 25th March, and I thought I had better get down and finish off the Propagator. I booted up Phred, and surprise surprise, I haven't written anything yet!!!

Inspiration Inspiration,
wherefore art thou Inspiration.

Up in Annies room behind
the clock?

No! Where? Here?
There? Think Man! There must
be something intelligent you can
say!! Inspire people! Say some
witty comment! Something deep
and meaningful! A blow for us
against mediocrity!

No! It's just no good!
There's nothing there! In my
time of need, I have been
deserted.

Oh Hang on! I hear
something; a small voice in the
distance! What will it be?
Shhhh! Quiet!! Yes! It's
getting louder. Ah fantastic,
inspiration is coming back to
me. At last! What will it be?

A great moment awaits

No! Forget it! It was the
wife calling me for supper! Oh
well, I've now got 6 weeks to
think of something suitable for
the next issue.

PROGRAMME

This is list of 'planned'
events for the rest of the year.

APRIL This month!

Auction night. Let's hope it
is a great night. I've some
bad news though! We don't have
an auctioneer! Will you help us
out and volunteer?

MAY

Technical night.
Video's and discussion. Roger
Harrison from ETI will be giving
a talk on ??????????

JUNE

Rag Chew. Discuss the
future of the club, next year's
committee, bitches. Also a wine,
cheese and bickies night.

JULY

AGM. If you're not
there, you've got the position!

***** Page 1 *****

SATELLITE

I heard Noel VK2ZNS talking about the satellites the other day, and asked him to write a short article on how he started using them. Here is his reply.

I was asked by Peter to write a short resume of operating with satellites. In my case this is operating OSCAR 10 (when the batteries are fully charged), and OSCAR 13. OSCAR - Orbiting Satellite Carrying Amateur Radio.

I started operating the satellites about 14 months ago, just after I retired from work. (Ever tried working satellites to 3am and then going to work at 6am? Ha Ha) I first acquired a YAESU FT736 as this has both 2m and 70cm plus satellite operating. I then acquired a SATTRACKER ANTENNA system. This has antennas for both 2m and 70cm (12 element crossed yagis on 2m and 22 element crossed yagis on 70cm) both switchable left or right hand polarised.

My next problem; to rotate and elevate those two antennas from my shack. Armstrong method no way! I then headed for one of those stores that sells amateur equipment. They had all types of rotators etc. I bought a KENPRO KR400 to rotate and KR500 to elevate, plus enough multicore cable to go to my shack.

That problem solved, how do I know where to point these antennas? Available from AMSAT Australia (Graham VK5AGR in Adelaide) are computer programs that can be run on most computers and using them with the correct Keplerian elements I was able to point my antennas in the right direction. I use an IBM compatible computer with

a program called INSTANT TRACK, also available from AMSAT Aust.

A preamplifier is a necessity as signals from the satellites are very weak (especially when the satellite is 40,000 km from earth). 40 watts to the antenna does a reasonable job on the uplink.

Well, you may ask, what can I work. I have worked around 50 countries since I began operating the satellites. JA, W, SM, G, DG, OZ, SV, OE, PA, HB, 4X1, XF, FO, VE are the prefixes of some of the countries that I have worked.

This is my way of working the satellites, but it does not mean it is the only way. I have written this to give others who at this time thought that working satellites is too difficult. Believe me, it's not. All you need is any equipment that can run SSB on 2m down-link and SSB on 70cm uplink.

If anyone wants more info, I can generally be found on the Wollongong repeater, usually on Sundays.

THANKS

I sincerely thank Noel for that article. I asked a couple of others, but they felt they didn't have the ability to put it into words. Noel, by the way isn't even a club member.

I have asked him for another article on the right techniques to use them, mainly because I need all the help I can get. Apparently, you have to talk on the 70 cm and tune the 2m set till you can hear yourself!

***** Page 2 *****

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PROBLEMS

Our trusty photocopier has let us down. Last month, Dale V. SH fought for hours and hours to photocopy the job. It meant putting through 5 pages and then switching off for 5 minutes to let the machine cool down, then another 5 pages. Since then it has completely died so we have a problem.

Does anyone have a spare photocopier they aren't using? The cost of a new one is prohibitive, and the club isn't that flush with funds so what's the alternative?

DOTC

OK. Last month we were asked about a direct conversion receiver oscillator frequency when it was tuned to receive a lower sideband SSB signal.

The answer was 'C'. A direct conversion receiver is just what it says; direct conversion. The frequency of the oscillator mixes with the input frequency leaving the audio to be filtered through into the following stages.

This month Keith VK2OB asks a simple one:-

In a carrier that is amplitude modulated by an audio signal of 1 kHz, then the bandwidth of the transmitters modulated signal will be:-

- a) 0.5 kHz.
- b) 1.0 kHz
- c) 2.0 kHz
- d) 6.0 kHz.
- e) I haven't a clue.

WANTED

Here's the ultimate excuse for you not doing morse

You have sold your key to Wayne VK2KWN..

Wayne? He is the owner of Coastwide Communications, although he might have sold the business by now. Welcome to the new boss if you're there. Anyhow, back to the request, Wayne is looking for a morse key. What sort? I haven't a clue, but I expect he want's something a bit more than the \$9.995 Dick Smith Special, and less substantial than the gold plated \$200 special from someone else!

***** Page 3 *****

Amateur Satellite Frequency Guide Addendum for UoSats and PacSats
 Compiled by R. Hambly, WB2TNL @W3ZH
 From Amsat Journal and N4HY
 Data as of 16-Mar-90

ID	NAME	PRI DNLINK	SEC DNLINK	UPLINKS
UO-14	UoSat D	435.070 FSK		None
UO-15	UoSat E	435.120 FSK		None
AO-16	Pacsat	437.025 PSK	437.050 PSK [1,2]	145.900, .920, .940, .960
DO-17	Dove	145.825 AFSK	145.825 AFSK	None
WO-18	Webersat	437.075 PSK	437.100 PSK [3,4]	145.900
LO-19	LuSat	437.150 PSK	437.125 PSK [5,6]	145.900, .880, .860, .840

NOTES:

- A. All Uplinks require manchester encoded FSK modulation into the audio input of an FM transmitter.
 B. All downlinks except DO-17 require an SSB receiver; DO-17 requires an FM receiver. UoSats are 9600 bps. All others are 1200 bps.

FOOTNOTES:

1. AO-16 secondary downlink uses Raised Cosine waveform
2. AO-16 telemetry indicates possible efficiency problem on secondary transmitter so frequency not used for now.
3. WO-18 secondary downlink uses Raised Cosine waveform
4. The secondary transmitter of WO-18 is not operating correctly so will not be used for now.
5. LO-19 secondary downlink uses Raised Cosine waveform.
6. Secondary transmitter of LO-19 cannot be used while CW beacon is operating because they share the same frequency.

* Origin: SOURCE OF MAGIC =New England Roots= 203-431-4687 (Opus 1:141/725)

SATELLITE

I have received so much information about satellites lately I am embarrassed! The trouble is, a lot of it is very 'wordy' and it takes a lot of space to say nothing (a bit like some politicians), and what is said isn't of interest to all members. I have resisted the urge to enter a lot of it, but I suggest you

log on to VK2XY Packet BBS and look. If you don't have packet (G'day Ray), you can call John VK2XGJ's phone BBS. If you can't do that, you can go around and see one of our resident experts (Harry VK2JHW, Lyle VK2ALU or Noel VK2ZNS amongst others who must be out there, but I don't know about) for the information. If you want a bum steer, come and ask me!.

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ALUMINIUM

I had a phone call from a very nice lady at Wollongong Aluminium (I won't remind you that they are one of our advertisers) last month. She told me I had entered their phone number wrong! Well, I've never let the facts get in the way of a good story, but in this case I must correct the error. Their phone number is (042) 28-5188 and they also have a FAX number (042) 299-382. Whatever you do, don't use the wrong one, cause as smart as machines are, a fax machine doesn't talk Australian.

ADVERTS

A couple of our adverts are still wrong. I regret I haven't got around to fixing them, but I want to convert them to IBM format and not Mac in case the new editor doesn't have access to a Mac. Hang in there folks, it has to get better.

GOOD OLD DAYS

Just a thought, but do you realise that the Good Old Days are now!. Think about it.

***** Page 5 *****

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Wayne Newport
VK2KWN

REPEATER REPORT

This report should have been in last month's news letter but missed out by a matter of hours. The Hill 60 repeater, VK2RUW went off-air for a short time last month and tnx to Graeme, VK2CAG, for getting it back up and running in a short space of time. Apparently some of the components are starting to show their age and the system came back on-line with a simple tuneup. Goes to show that not only people tend to forget things as they grow older!

(Continued next column)

We now have a dual-port TNC and UHF radio for upgrading the Packet system. After the relevant paper work and testing of the system it will be sited at Mt. Murray. This will also incorporate the ROSE node to get in line with the rest of the backbone up and down the east coast of Australia.

One afternoon over the first weekend of March Ken, VK2TKE paid a visit to Mt Murray to checkout the desense of the VK2RAW voice repeater and after a few tests make a couple of SIAS adjustments to the cavities, this fixed the problem on the RX side so at some distant stations could then access the repeater. This shows that the repeater, though having good to excellent coverage, needs some major work on the system. It has been on line for many years giving such good service and now things are in the need of a fix. For instance, the cavities need dismantling, cleaning and silver plating. I feel that in the near future the repeater should be taken off line for about a week so these jobs can be done.

The 10MX repeater VK2RAH, has been operational, tho at low power due to desense of the RX, a top of the line xtal filter is on the way and should fix the problem. The filter is being built by a commercial firm who has an amateur operator as its owner, thus being the case we will get the filter for a very good price. I think the next time that you are at the Club Meeting you should say Tnx to Rob VK2MT, Peter VK2BIT, Raffael VK2IU for a job well done. My only complaint is I can't use it!

Till next month, 73 de VK2XGJ.

PS, SIAS = Suck It And See!

***** Page 6 *****

John VK2XGJ was asked by Peter VK2KHE why he always told the editor about all the things he did. John replied "The more he writes about you, the less room he has to write about me!!"

Nice one John.

LUCKY?

I always knew he was smart, but I think I must have underestimated how great he is. One of our members Dave VK2YKQ was sent to G land by BHP. One day in the plane, three days at a course and one day in the plane again.

I'm sure if it was me, I would have taken some annual leave and had a look around for a week or two. Knowing how much Dave like travelling, I expect he tried it and was knocked back. It must be hell being so valuable! I'll go away for 4 weeks holiday and no one knows I've gone. When I get back, no one knows where I'm supposed to work!!!

I DON'T BELIEVE IT

John VK2XGJ, our local Packet Fanatic, silent listner on the side, judge of all bad deeds, sayer of none, him of many radio's, him of few antennas, was heard to be sending packet over the voice repeater.

When queried about it, he said "I like to share the better things in life with my friends!"

***** Page 7 *****

Calling All Amateurs

It's time to visit your local Market at BULLI if you need :-

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THICK

One of our members told me about John VK2ZDM. John was at the last meeting and when asked to do something and said "What if happens if I don't", was threatened with a story about him in the Propagator. He said "I couldn't care less, I'm thick".

There is some discussion about what the word was after 'thick' but since I can't get the facts, I'll omit it!!

See Jack at

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Do you ever have trouble saying things. That last article isn't right. The facts are there, and my comments are correct, but it doesn't say what I want it to.

UNSUNG

I have forgotten over the last few issues to say thanks to Morry VK2EMV. Morry is the voice on the broadcast when for one reason or another, Peter can't make it. Thanks a lot Morry.

CB

Peter VK2KHE has sent me a couple of articles. One is on converting a CB radio to 10 m FM operation. It is taken from ARA volume 4 No 7, of which you all have a copy. I won't bother copying it, but it looks simple, so if you need a 10m set, put your old CB's to good use.

BEHIND THE SCENES

Peter VK2KHE is our Broadcast Officer (amongst many other jobs). Late last month, 15 minutes before air time, Peter realised his radio had packed up. A frantic 15 minutes was spent and in the end he had replaced a 100 ohm resistor and was on air with 30 seconds to spare. It's little things like that that make the difference between a good club and a bad club

Dedication like that can't be beaten.

HELP

In June, we are going to do a mass mailing of all the local amateurs in the Illawarra again. I desperately want to have a good issue of the Propagator, and need a lot of interesting personal type articles. Just scribble on a note, and I'll add the fine points if you can't write an article. Comical or serious situations. Things you or a mate have done. Experiments that you are doing. Info on packet, satellites, RTTY, ATV etc etc all make interesting reading.

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FRL6 RESULTS

The FRL 6 Lotto was poorly supported and as such most of the prizes are uncollected. Here is a list of the winning numbers.

1 2 3 4 5 6 7 8 9 10
16 44 20 31 14 10 26 28 38 41

11 12 13 14 15 16 17 18 19 20
21 21 35 14 12 26 25 9 4 20

21 22 23 24 25
37 36 19 43 30

The top line is the week number and the bottom line the winning number.

GONE !!!!!!!

I guess most of you will know John VK2XGJ's F100 (that's a car, not a radio). Well, it is no more! John has traded it on another car. We went looking around one day, and the next thing he fronts up with his new one (actually, it's second hand, but new for him.)

He brought it around to show it off as soon as he got it, so I jumped in, and the damned thing wouldn't start!!! The NRMA was called and got it going in no time at all. Later the same day, he came around to pick me and the good lady up and guess what!! Yep!! It wouldn't start! Luckily, we knew it's tricks and started it ourselves.

On Sunday we went to Katoomba for a drive and guess what? Yep! NRMA again.

Next time you see a chocolate brown V8 Comodore parked on the side of the road, give the 'Boy Hoon' a wave!

ANOTHER CAR

Peter VK2KHE has a small problem with his car.....

It won't start!

Possible this could be the result of a fire that Peter had in the starter motor! He was sitting in it trying to start it and all of a sudden saw flames flying from under the bonnet. It took some putting out, and as soon as it was done, Peter went inside for 2 minutes and came out wearing a different pair of strides! Not sure why, but that's the story

***** Page 9 *****

FORD PREFECT

Well I wonder if this little epistle will make it into print this time. The Editor dropped my last attempt and suggested that I, the Great Ford Prefect, was being too, too nasty and that I shouldn't say certain things! Hah! If I thought it would get printed there are a few things he doesn't want known as well! Apparently I ruffled a few feathers in one of the last newsletters and someone was trying to find out who I am, well all I'll say is that you would never guess, there is no prize and I'll never tell.

Heard a few funnies on 80 meters the other day, some one kept tuning up on a certain frequency, yes the freq was in use, and yet this chappie couldn't hear the QSO that was in progress! Naughty naughty! It seems that a lot of the HF chappies are now starting to discover repeaters and waffle and waffle and waffle, never mind if there is a breaker, he can wait, it isn't as important as what these chappies are going on about. If you would care to have a look at some of the little hints in the AR mag. regarding letting the repeater reset, leave a short break for the breakers. If there is a breaker, call him/her in as it might be an important/emergency situation for the breaker.

Another of my pet peeves is the "chucker-in-of-remarks" even though they aren't in the QSO, no call just shove the remark in. One or two chappies in the IARS are doing this and it is setting a bad example for the newcomer who thinks "It was OK to do it on CB, it must be OK to do it on the amateur bands" and if it continues I'll start putting call signs and names up in spite of the editor

Got a goodie for you, it seems that a certain chappie caused problems on the VK2RIL 2 meter repeater by putting some packet signals through it, not once, not twice, but three times over a period of a week. Really P'd off the troops too! And we all thought he was an EXPERT!

It also seems that our President is still having some problems with keys, or so it seemed from a QSO I heard on 70CM just before the last meeting, and the two supposed chappies thought it was a secret!!!

Well that seems to be it for another month and remember, just like Candid Camera, I, the great Ford Prefect, am always listening!!!

Chin Chin. Ford.

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Power Supply for a VIC-20 Computer AND C64

Keith Rehe VK4AIO

7 Guardsman Avenue, Alexander Hills, Qld.
4161

FROM AR OCT 86

An alternative power supply for the Vic-20 is constructed thus . . .

Being a user of a Vic-20 computer, like many others I expect, I am having power supply trouble. My supply has always got hot but this time it stopped completely (gave up the ghost).

This particular unit requires nine volts AC and five volts DC.

An alternative supply was constructed in the following manner.

Using an old electric blanket transformer, I removed several turns from the secondary winding to give exactly nine volts AC.

The regulator board was removed from the original Vic-20 supply and installed inside the transformer control unit.

The offending component (the regulator) is encapsulated in epoxy resin and can be unsoldered and left behind. Replace the regulator with a 7805 and use a *very good heat sink*.

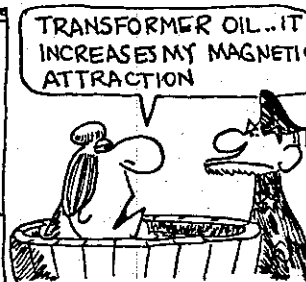
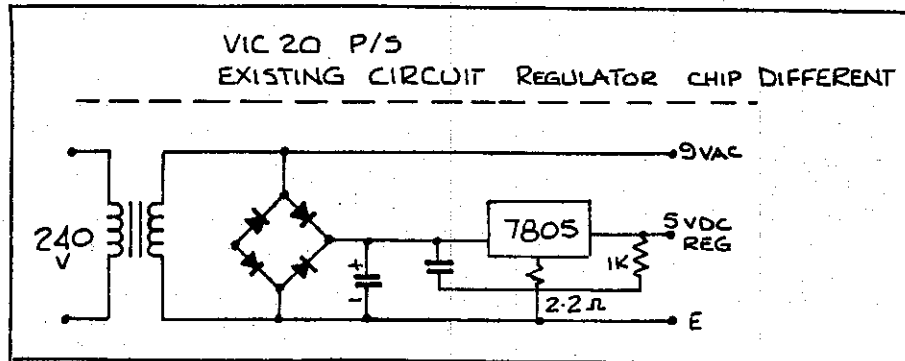
Connect nine volts AC to the board and use the existing power supply to computer lead (removed with the board from the old Vic-20 supply). Bridge the 2.2 ohm resistor and remove the 1k resistor.

The constructed unit, not being enclosed in epoxy does not get so hot and should last longer.

At least it will be easier to service in future!

No originality can be claimed for the circuit . . . just the ideal

Figure 1 — The Vic-20 Existing Power Supply Circuit (regulator chip different).
Bridge is a 2.2 ohm resistor
Remove the 1k resistor
Use a good Heat Sink



POST BOX

All mail can be sent to the Illawarra Amateur Radio Society at P.O. Box 1838. Wollongong. NSW. 2500.

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
VK2RIL - 438.725	Voice & RTTY	UHF	Sublime Pt
VK2RAH - 29.520/.620	Voice	HF	

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 are \$9 per annum.

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 to be sent to secretary.

Store

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

***** COMMITTEE *****

President:
Vice Pres
Secretary
Assist Sec.
Treasurer
Assist Treas
Gen Committee

VK2KHE - Peter Tomlin	30 Kotara Cr Unanderra.
VK2FPN - Peter Read	43 Bright Pade. Dapto.
VK2TPH - Phil Howchin	12 Mawarra Ave. Dapto
VK2KCV - Pat Kennedy	
VK2XGJ - John Simon	14/42 Brownsville Av Bville
VK2YKQ - Dave Henderson	
VK2KEY - Pat Jordan	VK2KCV - Pat Kennedy
VK2MT - Rob McKnight	any club member

Repeater Pres
Repeater Comm

VK2XGJ - John Simon	
VK2CAG - Graeme Dowse	VK2EXN - Ian Callcott
VK2MT - Rob McKnight	VK2KHE - Peter Tomlin
VK2JBS - Bill Stone	VK2XLA - Graeme East
VK2FPN - Peter Read	
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