THE PROPAGATOR

MAY ISSUE 1997

Welcome to another issue of the propagator. Thank you to those people who contributed articles for this issue.

As was reported at the last club meeting, the Regional Conference of Clubs was again hosted by the the Goulburn Amateur Radio Club in the Goulburn Ex-Servicemans Club. Representatives from our club were :-
Simon VK2XQX and Brian VK2UBF. Once again the comforts of Brians Bluebird were sought for the trip to Goulburn.

Those present were Chair amateur Tony VK2VCR, Darryl VK2BZZ, Alex VK2ATY, John VK2AIJ Brian VK2UBF, Simon VK2XQX, Stan, VK2EL Dave VK2BDT, Dennis VK2TDB and Mick VK2BMH.

The usual light hearted ribbing prefaced the meeting, and after a while it got down to business. At the previous meeting some 6 months earlier, we had a representative from the VK2 division of the WIA. An invitation was forwarded to them to attend this meeting, but no one was present.

Someone raised the issue of morse code! After several soap boxes developed wood worm a motion was put to ask the WIA of what they intend to take to the next WARC with regards morse and its requirements for inclusion or exclusion for examination .

A brief look at the callbook will show that most of the VK3 repeaters are sponsored by the VK3WIA. A motion was put that the VK2WIA pay for all repeaters that are operated by affiliated clubs. Following from this a motion was put to encourage the WIA to pursue Site licensing for repeaters and not individual Txers.

Final motion was for each attending amateur to pay $2.00 for the day to cover the Goulburn Clubs cost for the conference.
By next issue we should have a report on the Conference of Clubs held at Wigram St this week end.

Coming Events

May:- Video tape about lightening as shown recently on the ABC.

June:- Video tape on Marconi.

July:- Repeater video from Rob VK2MT.

How To Repair A Repeater.

Step 1. Approach the ailing repeater in a confident manner. This will give the repeater the mistaken idea that you know something. It will also impress anyone who happens to be looking, and if the repeater should suddenly start working, you will be credited with its repair. If this step fails to work, proceed to step 2.

Step 2. Wave the manual at the repeater. This will make it assume that you are at least familiar with the source of knowledge. Should this step fail to work, proceed to step 3.

Step 3. In a forcible manner, recite Ohms Law to the instrument (CAUTION: before taking this step, be sure of your knowledge of Ohms Law). This will prove to the repeater, beyond the shadow of a doubt, that you happen to know something. This is a drastic step and should be attempted only if the first two fail. If this step fails to work, proceed to step 4.

Step 4. Jar the instrument slightly. This may require anything from a three to six foot drop, preferably on a concrete floor. However, you must be careful with this step because, while jarring is an approved method of repair, you must not mar the floor or get the repeater out of alignment. Again, this is a very drastic step. If it fails, proceed to step 5.

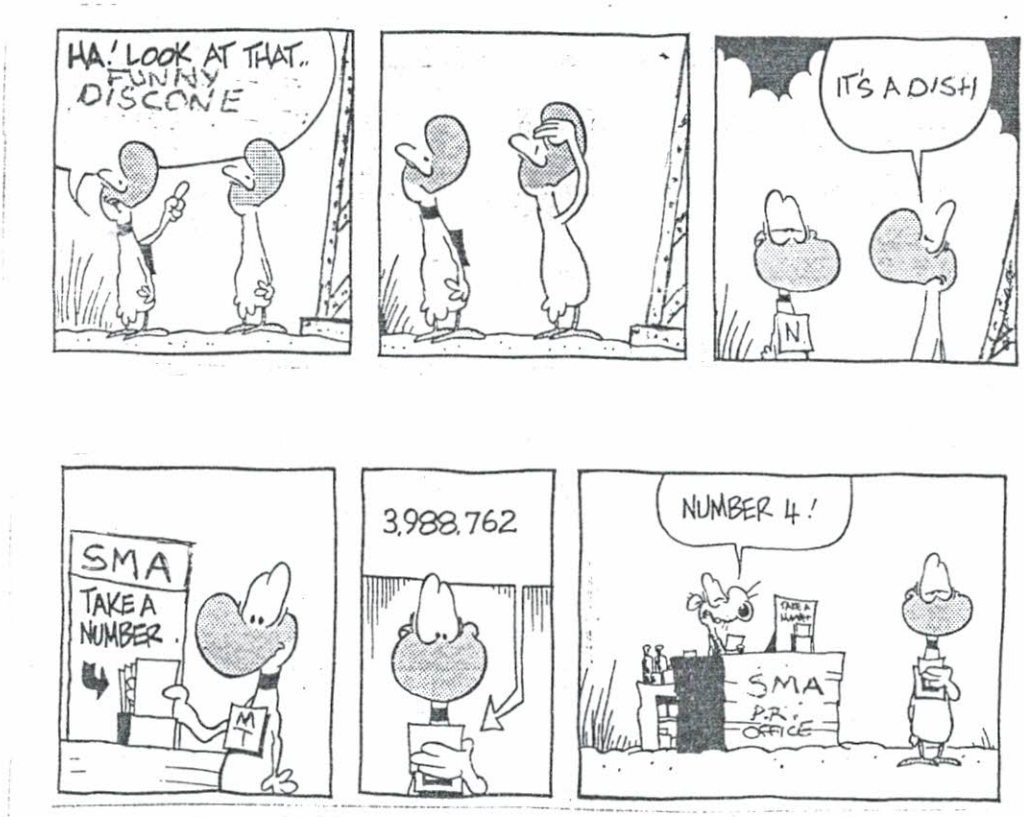
Step 5. Brandish a large screwdriver in a menacing manner. This will frighten the repeater and demonstrate your knowledge of the deadly "short circuit" technique. Proceed to step 6.

Step 6. Add a tube...even though the repeater is solid state. This will prove that you are familiar with the repeaters design. This will confuse the repeater and thereby increase your advantage. If this does not work, proceed to the most drastic and dangerous step. It is seldom needed and is a final resort if all else fails!!

Step 7. THINK!

(Courtesy of READY, FIRE, AIM school of operations; author unknown.)

This voucher is worth $5.00 off your next membership renewal. To claim this voucher you must sign up a new member. A maximum of 4 vouchers per member.



When disaster strikes.....

When natural disaster strikes the community,one of the first links to fail is Communications.

Telephone lines and Radio Antennas are brought down,portable Radio systems prove inadequate for the terrain,power supplies may fail,or available resources are spread too thin to provide reliable communications.

Licensed amateur Radio Operators from WICEN have provided vital communications when everything else has failed.Examples of activations include Cyclone Tracy,the 1979 & 1994 bushfires in the Blue Mountains and Central Coast,Newcastle Earthquake,and the Vales Point Power Station explosion and subsequent fire,to name but a few.

Most licensed Radio Operators are more than willing to assist in times of crises,and often do.But in general,they do not have any formal training in Emergency Management or Communications procedures.This is where WICEN proves itself invaluable.

WICEN has teams of trained operators available at short notice,ready to provide emergency communications support.These teams can access a State-Wide Network of VHF/UHF repeaters,and where necessary,can rapidly move portable repeaters to the Emergency location.WICEN's long range capability is superb,with access to numerous allocations throughout the High Frequency bands.WICEN is particulary adept at providing interservice links where these do not exist.

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**"I would like to thank WICEN for the courageous and selfless work,for the tireless uncomplaining service,and the sheer courage that saved our city..."Dirk O'Connor,Mayor Gosford City,after the January 1994 bushfires.

"The unsung heroes..."Ross Martin SES Controller,after the January 1994 bushfires.

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Wicen

.....ready to serve the community
in times of need.....

WICEN NEEDS YOUR HELP NOW!

Want to know more..see Chris Stephens VK2XBC
RCO South Coast Region

OR

Ron Hanks VK2UR
WICEN State Committee Member

Fan-tenna... An antenna made from a fan?

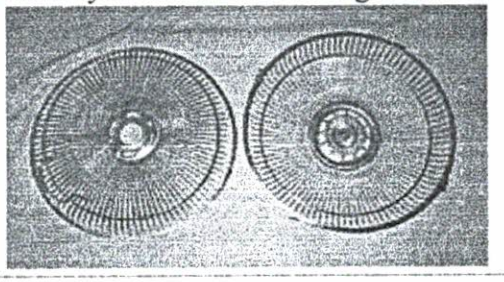
Did you ever look at a broken household item and think 'I can't throw this out, there just must be some use for it in my ham shack'! That was the case when our fan gave up the ghost one summer. The more I looked at the metal cage of that fan, the more it started to look like the perfect radial system for some future two meter ground plane antenna.

Some quick figuring (234/Frequency [MHz]), showed that if the cage radius is anywhere near 19 inches, it would make a 'fan-tastic' ground plane. As it turned out, my cage had a smaller diameter, in fact it was only about 10 inches, but I went ahead with the project anyway.

In an effort to create an easy to build, not to mention cheap, antenna, I decided to raid the hall closet to confiscate an old wire hanger to use as the vertical portion of the ground plane. I cut the wire a bit long to leave plenty of room for adjusting to a 1 to 1 SWR. With the help Bob (N3LSS), and his 2 meter hand held, we cut and trimmed, and ended up with a textbook 19.25" vertical radiator and a perfect match.

Construction:

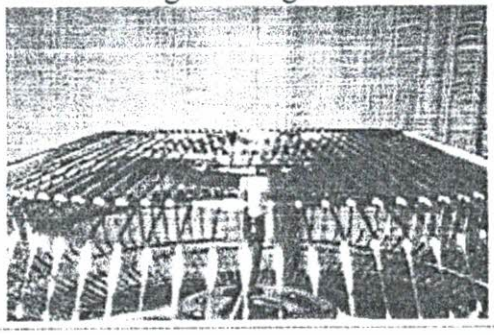
Construction is extremely simple. First you'll need a connector, to properly mate with the one on the end of your coax. I used an SO-239 connector from my junk box. Insert the connector through the center of one side of the fan cage. My fan cage conveniently separated into two halves and provided easy access for mounting the connector.



If the center section of your cage is plastic, be sure to attach a jumper from the connector to the metal portion of the cage.

Solder the coat hanger to the connector.

Lastly, attach your coax after routing it through the back side of the other cage half.



If you like to tweak and prune, start with a vertical length of about 21 inches. Cut off only 1/4 - 1/2 inch at a time! If you don't have access to an SWR bridge for the two meter band, just cut the whip to 19 1/4 inches and your match will be very close.

If outdoor use is anticipated, I'd suggest using an aluminum rod in place of the coat hanger in order to survive the winds.

Although a 19 inch radius cage is optimum, as this design shows, a cage diameter even half that size works so don't bother to try and modify its length at all.

Pretty 'fan-cy' huh?

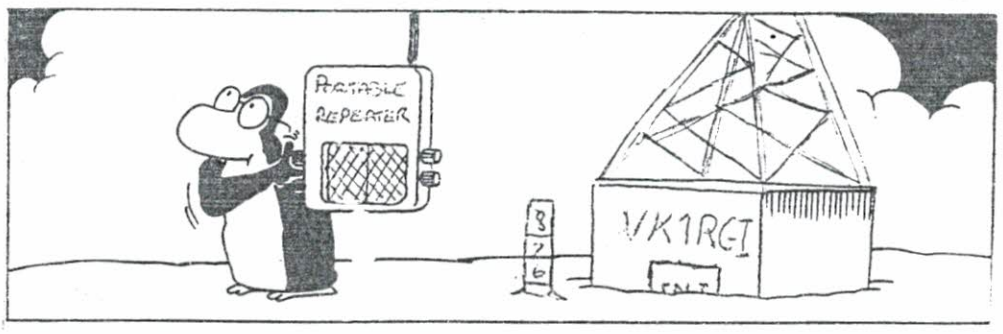
Test out:

But does it work? We are fortunate to have access to a local repeater which has a unique feature. It provides a voice announcement of your signal strength into the repeater. A quick test with the new fan-tenna indoors, in front of a window, and on the ground floor, provided a better than expected 30 over signal.

Additional tests from the same location, using the hand held's existing whip, proved that the new ground plane was far superior and provided an amazing improvement in gain. Yes indeed, this antenna does work!

Antenna Construction Tips
Back to the Antenna Elmer
Back to the Home Page

DOWN LOADED FROM INTERNET.
BY - JIM. VK2ZWG.



PC Basics

This is not intended to be an instructional manual but more of an explanation of some of the terms used by the computer types and what they do.

Before I get too far into this, I would like to throw two words at you;"STATIC ELECTRICITY" killed the PC . Yes we have all heard of static electricity and how it blows up CMOS stuff and alike. Static electricity not only blows up components, it WOUNDS them as well. Wounding is not so apparent unless you have a pocket electron microscope and check every component you have. Wounding will cause a failure , 1 minute ,1 hour 1 day , or perhaps months later.

Ever wondered how a factory can put a sticker on the box saying factory tested OK, only to have you take it out of the box and it is dead? I'll bet that poor static practice was employed and a component was injured during manufacture. **Use your wrist strap when you fiddle with your computer.**

First term we'll look at is BUS. Basically there are 3 types of busses:-
address
data
control

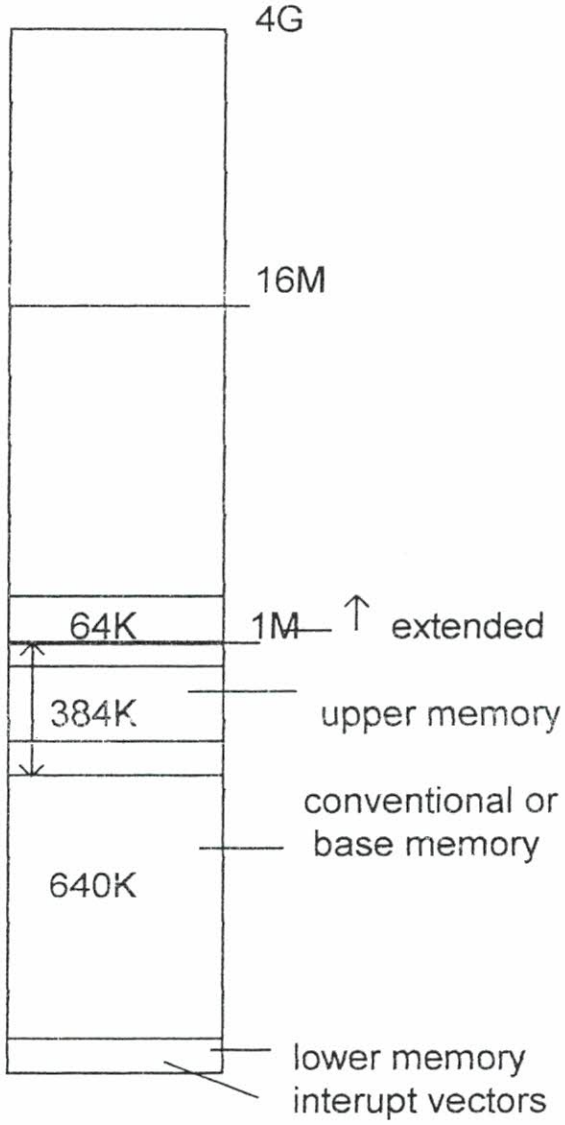
A bus is a multiple signal path. The most common terms you will here with the word bus attached are ISA , VESA , PCI.

ISA 8-16 bit @ 8 Mhz
VESA 32 bit up to 33 Mhz
PCI 64 bit @ local bus speed

Memory
There are all types of different memory used in a computer. the common ones are :-
DRAM , SIPP , SIMM , SRAM
These are usually your system ram. Dram in dual in line packages (DIPS) is usually found on the older 286 and XT motherboards to make up the system memory. Putting lots of DILS on your m/b took up lots of room, so the SIMM or the SIPP ram was introduced. These are still Dram but are configured onto one strip that takes up much less room. These usually range from 256K up to 32 Meg on one strip, with the SIMM being by far and away the most popular.
DRAM:- Dynamic ram.
SIMM:- Single in line memory module.
SIPP:- Single in line pain in the posterior.
These above types of ram are known as non- volatile memory. This type of ram needs to be refreshed every 100 m/s or so.

This ram is also to be found on video cards ,ram bank cards, and sometimes on you beaut sound cards.
SRAM is fast ram . Sram stands for static ram and requires no refresh. This is the type of ram you will find on your m/b being used as *cache.*

Below is a drawing to give you an idea of how your system ram fits into the scope of things.



ROM memory is usually found on the mother board. However, ROM , stands for Read Only Memory, so you can also find it on video cards , network adaptors , scuzzy controllers and alike.
Mother board Rom or Sytem Rom holds the BIOS. BIOS stands for *Basic Input Output System.*
System rom contains 3 primary programs.

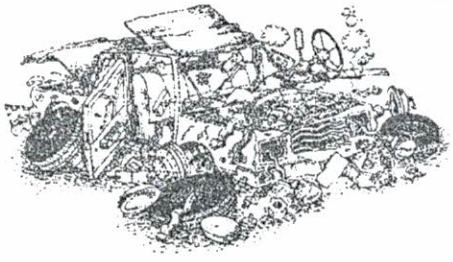
1. POST or power on self test which is a set of routines that tests the m/b , ram , video card , keyboard , disk controllers etc. If and error is found with one of these it will display a message indicating which device has failed. Obviously if the video has failed, you won't see a lot.

2. BIOS is the software interface to all the hard ware in the system . It contains a set of service routines that when called, talk directly to the hardware devices.

3. BOOTSTRAP LOADER
Is a routine which initiates a search for an operating system on a disk. If one is found , it is loaded into memory and given control of the system. If not an error message is displayed. (*operating system not found usually means the pyour hard drive parameters are not set correctly.)*

More next issue

SPEED KILLS



Have you heard of the "Darwin Award" from the U.S.? It is an annual 'honour' given to the person who did the gene pool the biggest service by killing themselves in the most extraordinary and stupid way.

Last years winner was a fellow who was killed by a Coke machine which toppled over on top of him as he was attempting to tip a free tin out of it.

This years award nominee:

The Arizona Highway Patrol came upon a pile of smouldering metal embedded into the side of a cliff rising above the road at the apex of a curve. The wreckage resembled the site of an aeroplane crash, but it turned out to be a car. The type of car was unidentifiable at the scene. The lab finally figured out what the wreckage was, and what had happened.

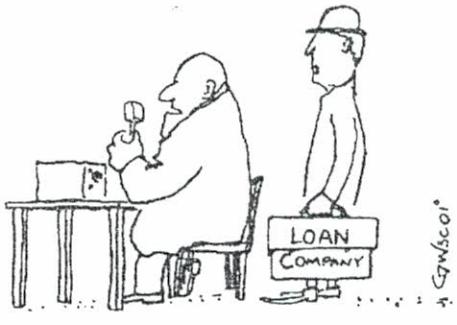
It seems that a guy had somehow got hold of a JATO (*Jet Assisted Take Off*) unit *(actually a solid fuelled rocket)* that used to be used to give heavy military transport planes an extra "push " when taking off from short airfields. He had driven his Chevy Impala out into the desert and found a long straight stretch of road. He then attached the unit to his car, jumped in, got up some speed and fired off the JATO.

The facts as best as could be determined are that the operator of the 1967 Impala hit JATO ignition at a distance of approximately 4.8 km. from the crash site. This was established by the prominent scorch marks and melted asphalt at that location. The JATO, if operating properly, would have reached maximum thrust within five seconds, causing the relatively lightweight Chevy to reach speeds well in excess of 500 km/hr and continuing at full power for an additional 20 to 25 seconds.

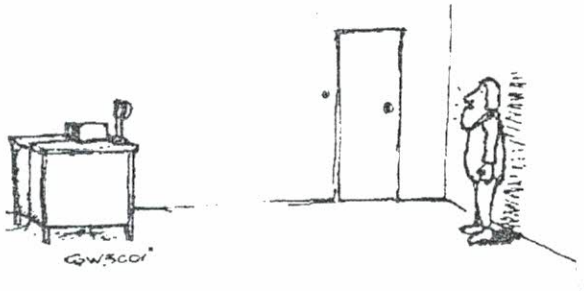
The driver, soon to be pilot, most likely would have experienced G forces usually reserved for dogfighting FA 18 pilots, basically causing him to become insignificant for the remainder of the event. However the automobile remained on the straight highway for about 4 km,15 to 20 seconds, before the driver applied, and completely melted, the brakes, blowing the tyres and leaving thick rubber marks on the road surface, then becoming airborne for an additional 2.2 km and impacting the cliff face at a height of 38 metres above road level, leaving a crater one metre deep in the rock !

Most of the driver's remains were not recovered.

Surely this only goes to show — speeding never killed anybody — but stopping did !



" .... I may have to make this my final O M ! !



"..... is this any better ? "

These next couple of items are from GUYWIRE, The Regina Amateur Radio Association newsletter.

IF THE REPEATER COULD SPEAK FREELY

It is lonely on the hill,
the only time someone's comes to see me ,
is when I'm very ill, and they leave as soon as they fix me.
I get very hot on mid-summer days,
and very cold on long winter nights,
yet they expect me to work always.
Do I have any rights?
I listen carefully to what they tell me,
then I repeat every word, everything exactly to the T, while impersonating the voice I just heard.
When here is a storm brewing,
I get a lot of use,
and I don't mind a lot of rag chewing,
yet I don't like abuse.
Sometimes I get to talk on the phone,
as well as on the air,
but they blame me if no one is home,
and that is not fair.
I work hard every night and day,
with no time off for fun,
and I don't receive any pay,
Boy, I'm sure glad I'm not human.
written by James KE4IND

QRM FROM MY SHACK COMPUTER

To reduce QRM from the shack pc the first step is to improve shielding and filtering so that the noise can only be coming from the pc and not in your radio.
To check the radio, disconnect the antenna, if you still hear noise check the radio's shielding and power supply suppression.
When this is addressed connect the coax and put a dummy load at the antenna end. If you hear PC RFI, junk the coax and replace it with some better shielded stuff. Reconnect the antenna, and the PC RFI should be at a lower enough level to address. If it still persists try these ideas.
Turn off the monitor. Most monitors have no shielding, just a plastic case. Try these solutions to help.
line the case with metal foil or a screen. Try a conductive spray on the inside of the case. Be sure to insulate any ares the may be in a flashover situation. If turning off the monitor didn't solve the problem, remove the video cable. If it makes a difference , replace with a shielded one. You may also use ferrite beads.
Try the same thing with serial cables.
If you still have RFI try disconnecting the keyboard and the mouse.
You may have to try a different brand or two if this is an RFI source. Try ferrite beads on the cables.
If you still have RFI you will need to improve the cases shielding. Make sure al seams are metal to metal contact and use VHF practise of securing screws every 5 cm or so along the seams.
Any ventilation openings should have a screen over them. Fit and RFI filter to the power cord.
If the case has any plastic sides , shield the like the monitor. Do not

THE ILLAWARRA AMATEUR RADIO SOCIETY SOCIETY INC

PO BOX 1838
WOLLONGONG NSW 2500

REPEATERS

Call	*Fx*	*Mode*	*Location*	*Linked to*
VK2RMP	146.850	VOICE	MADDENS PLAINS	VK2RMU
VK2RMP	438.725	VOICE	MADDENS PLAINS	
VK2RIS	146.975	VOICE	SADDLEBACK MT.	FUTURE
VK2RUW	438.225	VOICE	KNIGHTS HILL	VK2RGN VK1RGI
VK2RUW	29.620	VOICE	KNIGHTS HILL	OFF AIR
VK2RAW	147.575	PAKET	MT. MURRAY	
VK2AMW-1	144.625	PAKET	WOLLONGONG UNI	
VK2XGJ	144.700	PAKET	DAPTO	
VK2XGJ	439.075	PAKET	DAPTO	

MEMBERSHIP $22.00 PA $17.00 CONCESSION EXPIRING IMMEDIATELY AFTER THE AGM IN AUGUST

COMMITTEE

PRESIDENT	VK2XQX	SIMON FERRIE	
VICE PRESIDENT	VK2UBF	BRIAN FARRAR	
SECRETARY	VK2MT	ROB McKNIGHT	
TREASURER		ROB SKELCHER	
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BROADCAST	VK2UBF	BRIAN FARRAR	146.850 / 146.700
	VK2MT	ROB McKNIGHT	438.225
EDITOR	VK2XQX	SIMON FERRIE	
PRINTER	VK2MT	ROB McKNIGHT	
CANTEEN	VK2KVH	VIC HEE	
LIFE MEMBERS	VK2OB	KEITH CURLE	VK2CAG GRAEME DOWSE
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