BI-CENTENNIAL.



THE PROPAGATOR

BI-CENTENNIAL.



ILLAWARRA AMATEUR RADIO.SOC.INC.

MONTHLY NEWSLETTER OF THE ILLAWARRA AMATEUR RADIO. SOC. INC. VOLUME - 88, NUMBER: 10 NOVEMBER 1988. REGISTERED BY AUSTRALIA POST PUBLICATION NUMBER: NBH - 1491.

MEETINGS ARE HELD ON THE SECOND TUESDAY OF EACH MONTH, (EXCEPT JANUARY) AT 7.30.PM. AT THE STATE EMERGENCY SERVICES, BUILDING, IN MONTAGUE STREET, NORTH WOLLONGONG. VISITORS ARE MOST WELCOME TO ATTEND THE MEETING'S.

HAMS BLAMED AGAIN!

Media Misrepresentation of Amateur Radio

Last Tuesday night the 3rd of October on television Channel Seven's nightly program Hinch at Seven, and also in the Sydney newspaper the "Daily Telegraph", there was an item concerning interference to a marine MAYDAY call.

Hinch reported that the signal, which originated off the coast of Wollongong, was jammed by ham radio operators thereby hampering rescue attempts and placing lives in jeopardy.

The Daily Telegraph reported (and I quote):

" ... a third complication arose when the distress signal frequency became jammed by a ham radio operator who was interfering with the marine distress frequency."

(end of quote)

Upon hearing this item, some amateurs telephoned Channel Seven to obtain more information. When this proved to be a waste of time, these amateurs went right to the source, that is the rescue authorities in Wollongong. It is worth

noting at this point that these authorities are also annoyed in the manner in which the item was broadcast.

The truth of the matter is, a call was heard which stated that there was a MAYDAY four kilometres off the coast of Wollongong.

No further information was given nor could the unidentified station calling MAYDAY be raised.

CONTINUED NEXT PAGE

AUCTION SALE NIGHT

BRING YOUR UNWANTED GOODIES, AND YOUR MONEY WITH YOU TO THE AUCTION, AT THE MOVEMBER MEETING ON THE 8th HOVEMBER 1988 -- LOTS OF BARGAINS & GOODIES FOR MEMBERS, VISITORS AND FRIENDS

HAMS BLAMED AGAIN CONTINUED

The authorities had noted that for some time that evening the radio conditions were such that there was an enormous amount of "skip" present and the frequency of 27.880MHz was extremely noisy.

Also, this frequency has in the past suffered image interference from local CB operators.

According to the authorities, the interference to the distress frequency was due to the "skip" conditions present that night.

This FACT seems to irrelevant to media, who think that the story would sound better if something (or someone) more tangible So who is was to blame. media to blame? The anyone even consider remotely interested in Amateur or radio (CB, otherwise) to be a "ham We are radio operator". There the scapegoats! seems to be some truth in the old saying "why let the truth spoil a good story?".

While some could forgive them for not being knowledgable enough to distinguish between amateur, CB or pirate commercial sta-

tions, the fact remains that the public have been told that "ham radio operators" were responsible for the interference to a distress signal.

What image does this place into the public's eyes of us the amateur radio operators? Not a good one we can assure you!

When Channel Seven was approached by the VK2 Council, they freely admitted that the facts were not totally correct that they had not story. told the entire asked They were correction broadcast a to the item but at time writing this none broadcast. eventuated.

Council It VK2 The are writing to Seven and the Daily attempt to Telegraph record the set qet and straight correction item broadcast.

We ask that all Daily amateurs do likewise. The more letters that public hobby Daily Telegraph receive, the more likely that AX2WI they will actually do 1988. something about it. (NSW)

FOR ALL MECHANICAL REPAIRS
GO TO 423 PRINCES HIGHWAY
CORRIMAL

MAZCARE 84-4359

SPARES REPAIRS
SERVICING ALARMS
WHEEL BALANCING
AIR CONDITIONING
TOW BARS TOWING

Council It is most important Channel that our hobby not be Daily degraded by this attempt inaccurate act of record journalism.

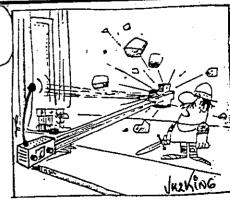
this by writing into Channel Seven and the Daily Telegraph. It is do likewise. the reputation and letters that public image of our seven and the hobby that is at stake!

likely that AX2WI Broadcast, 9th Oct actually do 1988. Copyright 1988 WIA about it. (NSW) & contributors.









SEMI CONDUCTOR THEORY PART 6

Common Connections.

Transistors have three terminals for external circuit connections, Emitter, Base and Collector, and there are hree practical ways of connecting a transistor in a circuit.

The circuit shown at fig 12 is called a common base connection ecause the base is common to both the input and the output circuits.

The other two connections are called common emitter and common collector and are shown in figs 13 and 14 respectively.

Each connection has its advantages in specific types of circuits.

Amplifier Gain.

Transistors widely used in circuits because they have ability to amplify. what is amplification? It can be defined as the process whereby the output current, voltage or Dower variations made larger than input signal variations that produced them. 'qain' widely used and tends to mean the same thing amplification. Gain is more properly a ratio of **d**utput to input. Thus, Current gain is defined as the ratio of output. current to input signal signal current.

Common Base Amplifier.

The circuits shown 12-14 are ofthe NPN types. A common base amplifier using PNP transistor is shown in fig 15 and the signal waveforms fia 16. To keep discussion within simple terms, the input signal is shown as a sine wave; in practice, the signals often have more complex shapes than a single wave has.

input voltage signal ۷i increases the forward bias of the emitter, the emitter current le increases and a corresponding increase in colleccurrent Ic appears output. changing collector current produces an voltage Vo of the sine wave shape the load resistor R1.

For junction transistors. the change in collector current is between and percent of the change in emitter current. ratio of the change an important property of transistor the short circuit common base current gain and is symbolised by the letter ALPHA. Mathematically, the current gain of a transistor can be expressed as follows: dIc/dIe where = small change collector current = small change emitter current with the collector voltage held constant.

OLLONGONG OLUMINIUM OENTRE

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.

The condition that he collector to base voltage Vcb be held constant means that the collector bias voltage Vcc should not change when collector current ic changes with emitter current changes.

Since dIc is between 90 and 99 percent of dIe, alpha is close to, but less than unity. Therefore, a junction transistor in the common base connection as shown in fig 15, cannot act as a current amplifier. But the common base circuit can act as a voltage or power amplifier.

CONTINUED NEXT PAGE

SEMI CONDUCTOR CONTINUED

The input resistance is very low, in the ohms order of 100 or the forbecause less. ward biased emitter junction offers little opto current osition flow.

output resis-The is very high. tance reverse the because biased collector iunction offers opposition to current flow. Thus, with a signal applied to the emitter, a change in flowing the current the very through acinput resistance is companied by almost gréat a change in colflow current lector ä hiah load through resistance.

Consequently, a high voltage gain Av and power gain Ap can be obtained.

for The formula voltage gain is: Av--which can DE written as: Av = dIc*R1/dIe*Ri where Vo=output voltage, Vi = input voltage,dIc=change collector current, dle=change. in emitter current, R1=1oad resistance and Ri≔input resistance.

The power gain is given by the formula: Ap = Po/Pi = Ic**2*R1/ Ie**2*Ri

As an example, the circuit of fig 15 has an Ri of 100 ohms, signal currents for emitter and collector are 100uA and 95uA (microamperes) and a R1 of 50K ohms, What is the value of Av and Ap??

Solution next month...

Peter VK2KHE...

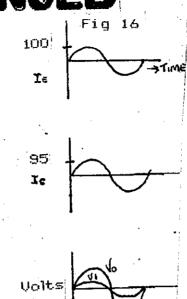


Fig 12 Common Base

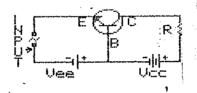
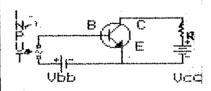


Fig 13 Common Emitter



ig 14 Common Collector

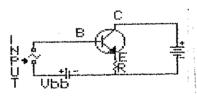
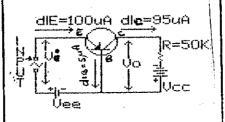
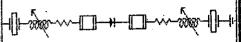


Fig 15



CALLING all AMATEURS....



Its time to visit your local Market at BULLI if you need:

METERS.....

ONTENNA MATERIALS...

ADIO PARTS.....

IT BITS AND PIECES...

ELECTRONIC Thingammys

RUE VALUE for Money....

CAVIONS

11. Molloy street BULLI.

PHONE: (042) 84-6838.

WANTED

VALVE'S TO BE
USED IN ORGAN
2BY7591
2BY6FH8
2BY6X8 PLS
CONTACT:
VK2DFK-MIKE
ON 042 83.2438

AUCTION NIGH

at the November meeting 8-11-88-lots of bargains

TO ONE AND ALL

HAVE FOUND ONE OF THE BEST CLEANING EQUIPMENT (A CLEANER) TO CLEAN UP ANTENNAS, I FOUND DUT VIA PETER KH6JEJ WHO WORKS WITH A/C'S CLEAN UP AND OTHER PARTS USING WHAT IS CALLED CON-COIL >> IT IS CONCENTRATE WHERE MAKE IT THREE PARTS AND ONE PART OF WATER, CON-COIL CONCENTRATE.

I HAVE USED IT TO CLEAN A FEW ANTENNAS. ONE A TH6DXX, AND A TH3..YOU NEED TO GO RIGHT UP TO THE ANTENNA TO SEE THE SPOTS IT IS UNABLE TO TAKE OUT. BUT,

WANTED

WANTED to SWAP
FTV 707 Transverter and
70 c.m. module to swap
for 6 Metre all mode
Transceiver e.g. FT 690.R
IC 505, IC 502 etc etc
Phone: Peter UK2BIT
After 6.30.p.m. on this
number (042) 83-3743.
TNX.

GET YOUR MONEY IN

Members are urged to pay their FRL contributions where they have reserved a number as this is our only form of fundraising, and is needed for the Clubs operations.

----*

I MADE A SMALL TANK, PUT ELEMENT INTO THE TANK FOR ABOUT (3) THREE MINUTES, AND COMES. WITH AND ITS HARD TO WATER, TELL FROM A NEW ANTENNA. ANOTHER ANTENNA. PAINT BRUSH, FOR A FEW MINUTES,

(3), CLEANED IT OFF WITH WATER. LOOKS LIKE NEW.

IT . HAS HAZARDOUS MATERIALS: HYDROFLUORIC ACID PHOSPHORIC ACID HOPE THAT THIS HELPS OUT.

SOMEONE OUT THERE...

TONY..
TAKEN FROM BBS

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 COMPOTER 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.

WOW, HOW'S THIS FOR VALUE ONLY \$4

- 1--- You pay at each club meeting, or however you wish. To a club committee nominated at this meeting (maximum of 3).
- 2--- The amount you pay to cover everything listed below will be \$4.00. per month. You can pay as many months in advance as you can afford, the maximum being for around 6 months (25 weeks.
- 3--- Once the list is complete, that is 40 names. That list CANNOT be changed. The reason being: All members on the list and who are NOTin arrears will be included in the share of a LOTTO-TICKET, which will be taken out and a copy given to all on the list. If you wish to have more than 1 number you may do so and this will also entitle you to an extra share in the LOTTO-TICKET as well as extra chances of winning the weekly prize. WE MUST STRESS THE IMPORTANTS OF NOT BEING IN ARREARS as this will affect you in the event of any prizes that might be won on the lotto syndicate side.

HOW IT WORKS:

Each monday nights lotto supplimentary number that is picked will be the winning number for the list (you will be given a copy of the list) in the propagator, you can use this list to mark off who the lucky devil was. (I HOPE IT IS YOU) The winner will recieve \$10. Winnings can be picked up at the club meeting. (Winners for all weeks prior to the meeting will be put in the Propagator.

WHAT YOU COULD GET OUT OF IT.

For the sum of \$1. per week you could get back in return \$10. per week (supplimentary number) plus a chance of a share (or more than 1 share) in a \$1,000,000. LOTTO-PAYOUT. (\$25,000 per share approx.

WHAT DOES THE CLUB GET OUT OF IT.

That is easy too answer. The club, and remember YOU ARE THE CLUB, the club gets the surplus money after paying out for the weekly prizes plus paying for the lotto ticket for six (6) months. It will be using this surplus to keep in existence a very important part of the club, namely the "PROPAGATOR" so in reality everyone gets someting back.

--****--

SO LETS ALL BE IN IT AND SUPPORT OUR CLUB.

__*****

I.A.R.U. REGION III NEWS FLASH

For The Information of all Packet Users World Wide

I have just attended the Seventh Regional Conference of the International Amateur Radio Union Region 111 Association held in Seoul, Korea from 10th to 14th October 1988.

Eleven Amateur Radio Societies were represented by delegates at the conference. The President of IARU, representatives from IARU

COAST-WIDE COMMUNICATIONS

Lot B Lawrence Hargrave Drive, THIRROUL

We Stock: C.B.RADIOS
C.B. AERIALS, COAX, CABLE
MARINE RADIOS
TV. AERIALS, ETC, ETC,
SALES AND SERVICE
OPPOSITE THE SHELL
CARACE..... Phone, 67-2134

Wayne Newport
VK2KWN

Regions 1 & 11 and the IARU International Secretariat were also present. A total of 104 papers were presented and considered by the Conference.

Eight working groups One WATE appointed. of these was especially important because involved the revision of the existing Region 111 Band Plan to accommodate Packet Radio. This working composed of: Convener Ron Henderson VK1RH. Members David Tan 9M2DT ASG Member. Daishichiro Iida JIIXHU. Jav Holladav W6EJJ ASG Tiondro Member. Moeis YB1CPT: ASG Member.

It recommended the following chages in the existing Band Plan:-

7 Mhz Data Sub-band 7.025 - 7.040 Mhz. 10 Mhz Data Sub-band 10.140 - 10.150 Mhz. 14 Mhz Data Sub-band 14.070 - 14.112 Mhz.

Bob Knowles ZLIBAD.

Considering the increase in Dramatic data mode usage on 20M band it is recommended that the Sub-band those classes signals are 14.070 Mbz 14.112 Mhz (with a +/- 500 Hz guard band at 14.100 Mhz for CW beacons) and within data Sub-band the practices of traditional data modes continue 14.095 Mhz with 14.095 Mhz to: 14.112 Mhz being reserother modes including packet.

This recommendation was put to the Conference and after a debate was unanimously carried. This in effect means that the present: operating on frequencies up to 14.111 within the authorized therefore requires changes. Further Details pending. 14th 1988 David Tan 9M2DT.

TAKEN FROM AX4TTY

POWER DEVIDER

A new two way power divider model P8268-2, which operates over the enfire frequency range of 8GHz to 18GHz covering all X-band and Ku(J)-band applications, is a available from March Microwave.

The divider is believed to be the smal-lest available at just 1x1x0.5 inches and yet the perfomance of 20dB minimum isolation and 0.8dB insertion loss is maintained across the full frequency range.

A high degree between the balance ports is also putput with 0.2 achi eved maximum amplitude degree ohase.The unit capable of taking up to 30 watts of everage power into a 1.2:1 VSWR VSWR of load.The divider itself is 1.5:1 maximum.Construction is stripline and is housed in an aluminium alloy with ybod parallel output SMA connectors.

taken from the XY BBS.

Physics is FUN!

By DERRICK DAINES

Induction

The galvanometer we made last month illustrates that current flow can cause deflection of a magnet. The reverse is also true, that movement of a magnet can cause current flow.

Wind approximately 10 turns of fairly thick copper wire into a flat coil and put this in series with the galvanometer as shown in Fig. I. If a magnet is now moved backwards and forwards within the coil, the needle of the galvanometer will move in sympathy. Since we know that the needle moves by application of a current, the only place that current can come from is movement of the magnet. Notice that if the magnet is held stationary within the coil no current is produced—it is only movement of the magnet that does it.

Magnetic Field

For the next series of experiments a small bell transformer is necessary. We call the coil that is normally connected to the mains, the **primary** and the part that is normally connected to the bell, the **secondary**. Connect a battery and a switch to the primary and the galvanometer to the secondary shown in Fig. 2. Opening and closing the switch will cause the needle of the galvanometer to be deflected first one way then the other, but whilst the switch is either closed or open, no deflection is observed.

Thissis interesting since it shows that the magnetism inducing the current which deflects the galvanometer does not actually need to move, it is enough if the magnetism is building up or collapsing. This is such an important point that it bears repeating: "a magnetic field collapsing or building up induces current flow in an adjacent coil"

Steady magnetism does not have this effect.

Neon Oddity

if we substitute a 90 volt neon lamp for the galvanometer as shown in Fig. 3, we may observe another oddity. This time as we open and close the switch we will observe that the lamp lights briefly only when the circuit is **broken** i.e., when the magnetic field is collapsing. (If it also lights when the circuit is closed, reduce the supply voltage.) Usually, two or three times the supply voltage is needed to make the lamp flash while closing the switch.

Move the neon lamp to a position

Move the neon lamp to a position across the low voltage battery, as in Fig. 4. Leave the secondary winding open circuit, it is not used in this experiment. Again, the neon lamp lights briefly when the switch is opened. This is a very puzzling phenomenon. Clearly the coil has somehow managed to induce current in itself; moreover, a current that is greater than the original supply! Is that true?

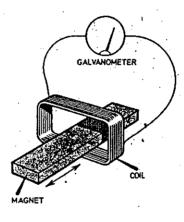


Fig. 1. When the magnet is moved to and fro a current flows and registers on the meter. No movement—no current.

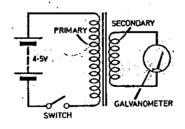


Fig. 2. Only when the switch is turned on and off does the meter needle

Self Induction

No, it is not. What has happened is that a voltage greater than the original has been induced in the primary coil. Curioser and curioser! However, regular readers of this magazine will have learnt already all the necessary ideas needed to put together a picture of the complete effect. However, for those readers who are still in the dark, the following explanation will make things clearer.

As the switch is closed, a magnetic field is formed about the coil. Upon opening the switch the magnetic field rapidly collapses, inducing in the coil a short-lived high-voltage current sufficient to "strike" the 90 volt neon lamp. This phenomenon goes by the name of "self induction" and next month I shall describe how to make a shocking coil utilising the effect. I do ask you however, to remember that the particular experiment described in Fig. 3 forms a good introduction to hysteresis. A subject we will discuss in a future issue.

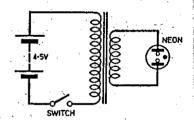


Fig. 3. When the switch is turned on, nothing happens, but when it is turned off, the neon flashes once. For a neon to flash, it needs 90 volts across it—so this is a strange happening!

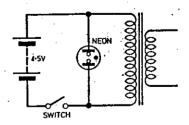


Fig. 4. Even on this side of the coil, the neon flashes when the switch is opened. Nothing happens when it is closed.

ON THE

18/9/88
VK2KGI-DAVE,Co-ordinator
VK2AXI-BRIAN, VK2EMVMORRY, VK2BIT-PETER,
AX2DFL-DAVE.

9/10/88
AX2ENX-TONY,Co-ordinator
VI88NSW-BILL, VK2HQFRANK, VK2JNC-NEIL,
VK2KHE-PETER, VK2BITPETER, VK2PHD-RAY...

16/10/88
VK2KGI-DAVE,Co-ordinator
VK2EMV-MORRY, VK2NNJJOHN, VK2AXI-BRIAN,
VK2KTF-FRED....

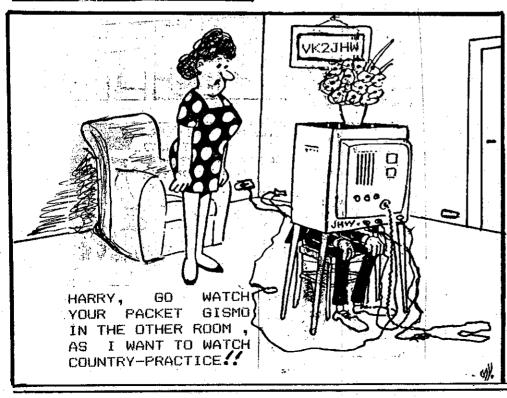
C/B ON VK2AMW/P WERE:VK2AXI-BRIAN on RTTY.
AX2ENX-TONY. Voice these
were taken on 80 mx....
C/B ON VK2AMW/P 2 mx :RTTY... VK2XGJ-JOHN,
VK2JHW-HARRY, VK2EMVMORRY, VK2KHE-PETER..
AND ON VOICE WERE:
VK2ALU-LYLE, VK2EMVMORRY, VK2EJH-PETER,
VK2MT-ROB, VK2XGJ-JOHN,
and VK5ZDF/2-GREG...

NEWTEC-ELECTRONICS

We stock:
ALARMS - ANTENNAS
BOOKS BOXES
COMPONENTS, COMPUTERS
HARDWARE, KITS, TOOLS
WIRE AND LARGE RANCE
OF SEMICONDUCTORS FOR
THE PROFESSIONAL AND
AMATEUR OR HOBBYIST

116 CORRIMAL STREET WOLLONGONG

(JUST UP FROM THE HARP-HOTEL)
Phone: 27-1620



OCTOBER MONTHLY MEETING

Twenty seven mems bers and guests were present for the meeting when Keith VK20B gave a report on the new amateur exam format.

The evening entertainment was an
interesting video of an
expedition to the
Antarctic provided by
Rob VK2MT.

This video was very well received by those present and the meeting closed with the usual supper and rag-chew.

OCTOBER COMMITTEE MEETING

At the committee meeting held on 18/10/88. The following subjects were discussed.

F.R.L.(5). is hung up because many members have reserved numbers but not paid their fees.

The Club Xmas picnic will be held on the 11th December 1988, the venue will be announced in the December newsletter, and Santa will be on hand to pass out gifts provided by parents.

The November monthly meeting with our annual auction will have goodies donated by Macelec and a wide range of articles to be auctioned for the club and members .

Planning for new antennas for the VK2RIL repeater and for the Club station at the S.E.S. rooms,,, and plans to promote the Club-store.

C.W. - THE HARD WAY

question is morse code a dead language ?? No. quite a few deaf, blind amateurs. mute There are many of these amateurs on the air and the so-called normal amateurs often would not the know that other partly party is disabled. Should you ever contact Mark, GØEMZ, remember that he is blind, deaf and also handicapped verv individual who has extreme trouble usina his hands. Through a placed on the headphone

temples, he is detect vibrations to and in this way mark learned the morse to his teacher friend Daisy Fletcher who also knows morse code. non-amateur conditions, these two converse Daisy tapping the code on Mark's hands. his physcial Descite handicap, Mark is still able to punch out 20 WPM and can receive up to 35 WPM.

(WHO says they can't learn the code ?? - ED.)

WORLD CHIP SHORTAGE

Japan's Ministry of International Trade and Industry expects the shortage of memory chips to continue until the end of the year.

A MITI study manufacturers Japanese ave| boosted production Оf basic supply emory chips for compuelectronic and - primarily equipment 256k dynamic random acand 1memories cess is not chips. megabit expected to keep up with

the demand for at east six months.

All but two US manufacturers pulled out of the industry in the early 1980's leaving japan as the leading supplier of basic memory chips.

The President of the Hewlett-Packard Computer Group said recently that a new desktop computer had already been delayed by 4-6 months because emory chip supplies were getting much ighter.

Some members of the industry say the shortage is due to the anti-dumping trade pact **O**ourtesy to **E**mateurs and Our area **O**ot usually Geen elsewhere we recommend CAVIONS 11. Molloy street Bulli! Phone: 1042) 84-6838. **Te all our Club Members.**

the US and between others while Japan. arque it results problems caused by the 1-megabit change to chips.

Taken from the BBS.



WANTED: AM CB.

Transceivers using Cybernet boards prorking of
not) For Club 10 metre FM
Repeater project Contact
b-VK2MTor Peter-VK2HT on
2) 84-7889 & (042) 83-3743.



MUSHROOM ARC-VIRUS

The myriad of telephone bulletin boards around the country are running hot with the news that a currently widely circulating program MUSHROOM. ARC cona nasty 'virus' tains can cause all which of disaster when sorts it comes into contact, with another 'tridaer virus'.

Apparently, those who have diss-assembled the program have found something like 19k of red hot 'virus' code waiting ready to strike, every time the program is run.

From what I have been told, it writes a string in random places on the HDD, and then copies it elsewhere every subsequent time the program is run.

I have requested a file of their dis-as-sembled code so that it can be examined properly, and more comments will follow once this has been done. First info is that there is no 'cure' for it, but that has yet to be confirmed.

It would be wise to warn all that their downloaded MUSHROOM.ARC programs may be rather lethal on HDD's.

Incidently, the program was uploaded onto the AMPAK OPUS / PRBBS by a well known identity from the

computer industry many months ago, when he wasn't aware of the problems it could cause.

Efforts are being made to trace it's path on BBS back to the original sender!

Says a lot for keeping an archive log of uploads, doesn't it! taken from XY-BBS...

STOP PRESS

More goodies for our Club auction. Illawarra Communications has donated various pieces of electronic equipment to be sold at our November auction night.

All proceeds will go into the Clubs funds. The Illawarra Amateur Radio Society inc Club wish to thank Illawarra Communications for their donation and also Tony Stone VK2VTS (used to be VK2VPR) for arranging the above...

BIG EWENT!Æ

MEMBERS ARE URGED TO PAY THEIR

F.R.L.5. CONTRIBUTIONS WHERE THEY HAVE RESERVED A NUMBER. AS THIS IS OUR ONLY FORM OF FUNDRAISING, AND IS NEEDED FOR THE CLUBS OPERATIONS !!!!!!!!!!

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.pm. in the S.E.S. Headquarters, Montague street, North Wollongong. VK2RAW - 146.850 - (VDICE) REPEATERS: VHF Mt Murray. VK2RAW - 147.575. - (PACKET) VHF Mt Murray. VK2RIL - 147.275. - (VOICE & R.T.T.Y) VHF Sublime Point. VK2RUN - 438.225. - (VOICE) UHF Hill 60 Port Kembla. VK2RIL - 438.725. - (VOICE & R.T.T.Y) UNF Sublime Point. BROADCAST: On Sunday evening prior to the club meeting, at 7.00.pm. R.T.T.Y. Mode Transmitted on 147.275.VHF, and relay on 3.562.Mhz. +/- QRM. Callbacks taken, immeddiately 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 CLUB - NETS: On 3.562.Mhz. SSB +/- QRM on Sunday at 8.30.pm. NEWSLETTER: "THE PROPAGATOR", published Monthly to reach EINANCIAL-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 \$12 per annum; students & pensioners concessional members \$9 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 2 I.R.C.'s .to THE AWARD-MANAGER, I.A.R.S.Inc.P.O.Box. 1838. WOLLONGONG. 2500. No is required. The club store operates at each club ,meeting. by COMMITES-MEMBERS. STORE: COMMITTEE: PRESIDENT: VK2DYU- BILL CHADBURN. 45. Beltana Ave. VK20B - KEITH CURLE. 24. Beach Drv, Woonona-VK2TPH- PHILL HOWCHIN. 12. Mawarra Ave, Dapto. VICE-PRESIDENT: SECRETARY: VK2DMR- DENIS McKAY. 17 Doncaster street Corrimal. TREASURER: GENERAL-COMMITTEE: VK2BIT - Peter Woods, VK2XCC - Ray Ball, VK2FPN - Peter. REPEATER - CHAIRMAN: . VK2XGJ - JOHN SIMON. REPEATER -COMMITTEE: VK2CAG - GRAEME DBWSE, *VK2EXN - IAN CALLCOTT, VK2KHE -Peter Tomlin, VK2FPN - Peter, *VK2EMV - MORRY .v.d. VORSTENBOSCH, VK2MT-ROB-McKNIGHT, VKZBIT-PETER WOODS, VKZFCP-FRED BROWN. : VK2IU QSL-CARD'S OUT - RAFFAEL BUONO. : VK2BIT - PETER WOODS. QSL-CARD'S IN - (STILL LOOKING FOR ONE) (?) PUBLICITY - OFFICER: - PETER TOMLIN. BROADCAST - OFFICER: VK2KHE VK2AXI - BRIAN WADE. CARTOONIST - JOCK TAYLOR, VKZEMV - MORRY.v.d.VORSTENBOSCH. PROPAGATOR-EDITORS : VK2JT VK2KGI - DAVE CAPON. : VK2DFK - MIKE KEECH. AND POSTED BY VK2BIT - PETER WOODS. PRINTERS : .VK2XCC/PHD - RAY BALL. D.O.C.LIASION VK20B - KEITH CURLE. SOCIAL-DIRECTOR : VK2DYU - BILL CHADBURN. CANTEEN-MANAGER LIFE - MEMBERS : VK2CAG-GRAEME DOWSE. VK2OB-KEITH CURLE. VK2ALU-LYLE PATISON SUNDAY - EVENING - CLUB-NET - ROSTER: STARTING AT 8.30.pm. FIRST SUNDAY OF THE MONTH : VK2MT - R08 MckNIGHT. 8.30.pm.

SUNDAY OF THE MONTH :

SUNDAY OF THE MONTH :

SUNDAY OF THE MONTH : VK2PHD - RAY

SUNDAY OF THE MONTH : VK2EBI - KEVIN MURPHY.

2 nd 3 rd

4 th

5 th

VKZENX - TONY

And on stand-by: VK2EMV after NOTIFICATION ONLY!

VK2KGI - DAVE CAPON.