

Looks like you won the F.R.L. Dave.
" Yes but I didn't think it stood for "
Full Repeater Liasion

RUN FULL COURSE

The present fund raising list (F.R.L.1.) will have run its full course by the time next months meeting comes round.

A new fund raising list (F.R.L.2.) will be commenced at the next meeting, and it is recommended that any member wishing to get on this list either be at the meeting, or get someone who is going to get your name put on for you.

Once sufficient numbers (40) are filled, that list (F.R.L.2.) will be closed and you will miss out, unless sufficient numbers are available to form another list. Remember, You have to be in it to win it.

These fund raising lists if well supported will give the club (your club) funds to make monthly meetings etc more interesting to members by way of:-

purchasing and establishing a radio shack at our club meeting place. The section of the C.E.S. that will be turned over for us to use is not to far away, and this means we will be able to establish a station that can be operational whenever we desire. And when this event happens we can really say we have a Radio Club in the true sense of the word.

So don't just leave it up to the same few members every time, get in and do your bit.

To those members who supported the last F.R.L.1. the committee, members and myself would like to say a big THANK YOU. To those that won, CONGRATULATIONS.

To those that didn't (this includes myself as at going to press) I say better luck next time and hope you will continue to support this cause.

Set out below is the basic concept of the fund raising list (F.R.L.) for the benefit of members who missed out last time.

1--The member pays \$1 per week and gets a number between 1 and 40.

2--The member may have as many numbers he likes for \$1 per number.

3--The number he gets he retains for 26 weeks.

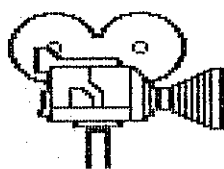
4--His number or numbers can return him \$10 per week if his number is the LOTTO SUPPLEMENTARY NUMBER picked on Monday night on T.V.

5--No matter how many Mondays his number comes up, on the Monday Nights

LOTTO draw, he can still keep getting \$10 for each one (for 26 weeks).

6--For every number a member holds and has paid for, he is entitled to 1 share per number in any LOTTO prizes that may occur on a LOTTO ticket (of which he will be given a copy) for a period of 26 weeks and is supplied as a BONUS.

7--Only members who hold a number in the F.R.L.2. will be eligible to receive any of the above prizes. So get in and get your Number. Don't delay, the list gets filled up very quickly, and you would kick yourself if you missed out on a \$50.000 prize.



NEXT MEETING.

**14TH OCTOBER
VIDEO NITE
ON REPEATERS**

Dont miss this EVENING

By VK2CAG - GRAEME.

STARTING AT 7.30.PM.

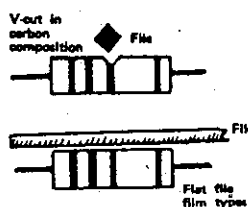
AT S.E.S HEADQUARTERS

Montague st North Wollongong

SEE YOU ALL THERE

TIPS

ODD RESISTOR VALUES



If you are faced with finding an odd value resistor, e.g. for multimeter repairs or making shunts for meters, a simple trick is to take a resistor lower in value than that needed and file it until the required value is reached. The resistor should be connected to an accurate multimeter, preferably a digital type, when being filed. Carbon composition or film-types may be used.

The power rating of resistors may be reduced slightly by the filing. When finished, a coating of modeling paint or epoxy resin should be given over the area that has been filed, to prevent moisture changing the resistor value.

REPEATER REPORT GRAEME VK2CAG

The problem last month with 6850 Mt. Murray turned out to be caused by three broken debeglass guys which serve to stabilize the centre of the collinear antenna. Only one guy remained intact, and that was the North-east one, making the antenna bend over towards this direction. Radiation angle was therefore lowered towards the Northern suburbs and raised upwards to the South. Large variations in signal strength were being experienced in all localities except in the Northern suburbs, especially when it was windy. The aerial situation fully explains the symptoms that were experienced.

Ian and I visited the site on 29/8/86 and lowered the mast and re-terminated the top guys. It was interesting to note that the only guy still intact was secured with a different type of knot than the others were, one that gave less of a sharp bend in the rope. Naturally we used the same type of knot to terminate all guys this time. The aerial was undamaged by the ordeal.

The plaque showing the donation of a solar panel by Eric P29ZEF in memory of the late Jim Mead VK2EJM is now fixed to the inside of the door of the equipment cubicle. A tin of polish will have to be kept at the site now so the plaque can be kept shiny...another item to be added to the list of routine maintenance jobs.

There is a photo album circulating around containing photos of the repeater sites from going back to the first installation at Mt. Murray right up to recent times. Photos are meant to be looked at, so I will be bringing the album to the next meeting for exhibition. Also, as mentioned elsewhere in the Propagator, some shots taken on videotape of all 3 repeater sites will be shown at the meeting.

The district Radio Inspector has advised us that complaints have been made about the pager interference to Sublime Point 7275. By mutual agreement, the D.O.C. will not take any action until our repeater has been checked to see if the interference problem can be eliminated by re-alignment or the repeater of by fitting additional filters to the receiver. I have not yet had the time to do this, so please bear with it till I get a spare afternoon to check it out.

Access to Mt. Murray is going to be more difficult for me in the future. I am getting rid of my 4 wheel drive vehicle and will have to use a conventional vehicle in the future. The access track can be negotiated with difficulty in very dry weather, and not at all when there is any moisture about, in a conventional car. Protruding rocks have claimed many a muffler over the years, and I don't blame anyone who does not attempt the track in his car. There are a couple of members who have offered the use of their 4WD vehicle, but its not always possible at short notice to organise transport as well as not being fair to others. What I am suggesting is that we organize a working bee at the site one weekend to upgrade the track. We will need someone with a 4WD and a trailer, or truck, and some blue metal of similar

CONTINUED NEXT PAGE

ON THE NET

31st of August 1986.

VK2EBI - KEVIN Co-ordinator
VK2MT - ROB, VK2PZY - DAVE,
VK2JAM - PETER, VK2ENX - TONY
VK2EMV - MORRY.

7th September 1986.

VK2MT-ROB Co-ordinator,
VK2EBI-KEVIN, VK2ENX-TONY,
VK2KFW-FRED, VK2AIV-RODGER,
VK2IU-RALPH, VK2PZY-DAVE,
VK2EMV-MORRY.

14th September 1986.

VK2ENX-TONY Co-ordinator.
VK2EBI-KEVIN, VK2JAM-PETER,
VK2IU-RALPH, VK2DWR-DAVE,
VK2PZY-DAVE, VK2EMV-MORRY.

21st September 1986.

VK2PZY-DAVE Co-ordinator,
VK2BBG/4-JIM, ZL3KR-ALLAN,
VK2AIV-RODGER, VK2PHD/6-RAY,
VK2JAM-PETER, VK2EMV-MORRY.
VK2EXN-IAN, VK2IU-RALPH.

28th September 1986.

VK2MT-ROB Co-ordinator,
VKAIV-RODGER, VK2BBG/4-JIM,
VK2EBI-KEVIN, VK7NTL-TOM,
VK2JAM-PETER, VK2PZY/P-DAVE,
VK2EMV-MORRY, VK2IU-RALPH,
VK2KFW-FRED

FOR • SALE

For anxious new members or new novice license holders, and would like to get on the H.F. band. Here is a cheap way to get on the air. I have for sale a converted Pearse-Simpson for ten meters, also with manual. For more information contact VK2EMV Morry or VK2PZY Dave.

PRICE : \$ 80.

FOR • SALE

1x19" Communi-
cation rack \$10

2 x SIEMENS PRINTERS

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Contact GRAHAME .

VK2DUP. ON 044-439376.
or at the club meeting

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must be less than half
a D.B.

PLEASE CONTACT:-

LEE STOKES: PH-297307.

OR
JULIAN NICHELLO ON
Phone number 942371 .

REPEATER REPORT CONTINUED

material to cover the slippery sections of the track. Any offers or suggestions will be welcomed at the meeting. There have been several instances in the past when the repeater has needed some minor adjustment or small job to be done on site and members of the repeater committee have driven up Macquarie Pass but have been unable to negotiate the track to the repeater. The job has had to be postponed until a suitable vehicle has become available (usually mine!)... walking is OK if plenty of time is available and there is no equipment to carry, but more often than not this is not the case.

So, anyone got a 4WD and trailer? Anyone know where we can get some real cheap blue metal? Anyone willing to put in a days work? See you at the meeting.

**URNS OVER
CALLSIGN**

VK2QU/3 who also had the original owner of the the callsign VK3NY, was VK3NY call, and asked if he approached by a relative of would be prepared to let him

Don't make expensive mistakes by buying blind. What should you expect as a minimum when purchasing an IBM compatible?

- * Dual speed 4.77MHz & 8MHz
- * 8088-2 Processor
- * Fully socketed Mother Board
- * Socket provided for 8087 arithmetic chip
- * Eight Expansion slots (2 should only be occupied)
- * Extra sockets for ROM's
- * Minimum 640K on Mother Board
- * 135w Power Continue output
- * Built in cooling fan
- * Centronic parallel printer port
- * 2 RS-232 serial Communication port (you will probably end up with a Modem & Mouse or A/D card etc)
- * Joystick Port
- * Dual floppy Controller
- * Battery backed clock/calendar
- * Legal Bios eg. ERSO
- * 2 Quality Floppy Japanese Disk Drives as used in Sperry, IBM, Olivetti etc .
- * An on site Warranty & Insurance must be available from Computer Shield or Hills Industry (Nationally protected). If these companies dont offer maintenance on the machine you are purchasing then forget it, Companies only offer maintenance contracts on machines they believe are reliable.

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have this call for himself as
it holds sentimental value.

Jim agreed that because of the circumstances this would be the right thing to do, and consequently handed it over to the new operator. Jim is now waiting for the mailman to bring him his new (2 letter) callsign.

So if you hear a VK3NY on the airwaves and not Jims voice calling it you now know why.

Why? If you hear the new
VK3NY, on the air give him a
call as he has just passed
his exam to become a
newcomber to the ranks.
Sorry don't know his name?



As most amateurs would have heard by now there was a big "BOO BOO" made in the marking of the last exam papers.

With a supposedly foolproof system being used for this purpose plus the secrecy and time taken to get a result back (3 to 4 weeks) it tends to make one wonder how many times this sort of thing has happened in past exams and not been " picked up " .

Whilst it has been admitted, and rectified, that mistakes were made this time what about the next time, if there is a next time.

Surely it is time the system was looked at and revised. In the days of the \$2 touch per exam mistakes could be glossed over, but with the cost now having risen to \$30, entrants to the exam need more EFFICIENCY for their hard earned dollar.

SO THE STORY GOES

A Ham moved from the big smoke out into the country and invested every cent he owned and bought a farm. He had only been on the farm a couple of months when

he realised he needed more cash, so he went and got a very large overdraft at the local bank.

When the time came for ploughing he found that the ground was so hard the plough wouldn't cut the surface.

Realising he was in big trouble with no cash left and a big overdraft to pay back he panicked and called the bank manager and told him his story.

The manager told him not worry as things couldn't be as bad as he thought and said he would come straight out to the farm.

On arrival at the farm the manager and the Ham walked out some distance from the farmhouse and the Ham taking a pick axe he was carrying proceeded to try to

penetrate the ground with it but to no avail. All he done was to bend the steel point on it.

The bank manager was amazed and said to the Ham farmer "all your property cant be this hard let us go further away from the farm and try again".

Just at that time the bank manager looked up and saw the Ham farmers cat come racing out of the farmhouse went past him like a "bat out of hell" and disappeared over the horizon.

"My gosh" said the manager i have never seen a cat run as fast as that in all my life.

The Ham replied "wouldn't you run as fast as that if you had to go 3 miles to find a soft bit of dirt".

Below is a copy of a letter, received by one of our members from a well known MAGAZINE:-

Dear sir,

Your name has been submitted to us with your photo, and I regret to inform you that we will be unable to use your body in our CENTREFOLD.

On a scale of 0-10 your body was rated -2 by our panel of Women (ranging from 60-75 years).

We tried to assemble a panel in the age group 24-35 years, but we couldn't get them to stop laughing long enough to reach a decision.

Should the taste of Women ever change so drastically that bodies such as yours should be appropriate in our CENTREFOLD, you will be notified by this office. In the meantime, don't call us; we'll call you

SYMPATHETICALLY

(Editor).

P.S. We do commend you on your unusual pose. Were you wounded playing sport or do you ride a bike a lot.

A Ham arrived at the pearly gates and was greeted by SAINT PETER.

"How did you get here" Saint Peter asked the Ham, "FLU" he replied.

—FOR—
COURTESY TO
AMATEURS AND
VALUE
IN
OUR AREA
NOT USUALLY
SEEN ELSEWHERE

WE RECOMMEND!!!!

CAVIONS

11. MOLLOY STREET, BULLI.

PHONE: 042-84-6838

TO ALL OUR CLUB
MEMBERS.

Confidential Memo found in Engineers' Dept. of Wollongong City Council upgrading of water supply to the city of WOLLONGONG

PIPE - SPECIFICATION

1. All pipe is to be made of a long hole, surrounded by metal or plastic centered around the hole.

2. All pipe is to be hollow throughout the entire length - do not use holes of different length than the pipe.

3. The I.D. (inside diameter) of all pipe must not exceed the O.D. (outside diameter) - otherwise the hole will be on the outside.

4. All pipe is to be supplied with nothing in the hole so that water, steam or other stuff can be put inside at a later date.

5. All pipe should be supplied without rust - this can be more readily applied at the job site.

N.B. Some vendors are now able to supply pre-rusted pipe. If available in your area, this product is recommended as it will save a great deal of time on the job site.

6. All pipe over 500 ft. (153m) in length should have the words "Long Pipe" clearly painted on each end, so the Contractor will know it is a long pipe.

7. Pipe over 2 miles (3.2 km) in length must also have the words "Long Pipe" painted in the middle, so the Contractor will not have to walk the entire length of the pipe to determine whether or not it is a long pipe or a short pipe.

8. All pipe over 6" (152 mm) in diameter must have the words "Large Pipe" painted on it so the Contractor will not mistake it for a small pipe.

9. Flanges must be used on all pipe. Flanges must have holes for bolts separated from the big holes in the middle.

10. When ordering 90 degree, 45 degree or 30 degree elbows, be sure to specify right hand or left hand - otherwise you will end up going the wrong way.

11. Be sure to specify to your vendor whether you want level, uphill or downhill pipe. If you use downhill pipe for going uphill, the water will flow the wrong way.

12. All couplings should have either right hand or left hand threads, but do not mix the threads - otherwise, as the coupling is being screwed on one pipe it is unscrewed from the other.



Finding his complicated doorbell system inoperable, Harry decided to ring an electrician. The call was answered by a husky-sounding fellow with a rich Irish brogue who promised to come round that afternoon.

Next day Harry was back on the blower with a fairly short fuse. "Look here," he raged. "I thought you said you'd be round yesterday to fix my doorbell!"

"Sure, and we were there," came the reply. "We sent our best man. He rang the bell and waited for about ten minutes, but nobody answered."

Bill decided to give up smoking, but found his three-packs-a-day habit hard to kick. He became so irritable that his harassed wife visited the doctor to seek advice.

"My life's a misery, doctor," she said. "Can't you suggest something that will take my husband's mind off those wretched cigarettes?"

"Well Mrs Brown," the medico answered, "I've been reading in the medical journals lately that sex is considered a good substitute."

Mrs Brown recoiled in horror. "Good heavens, doctor, you can't be serious. Do you know just how many cigarettes there are in even one packet?" she gasped.

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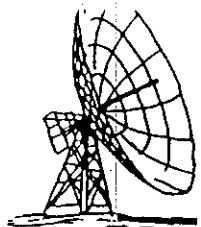
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SATELLITE NOTES BY LYLE VK2ALU

Satellite Report - October 1986.

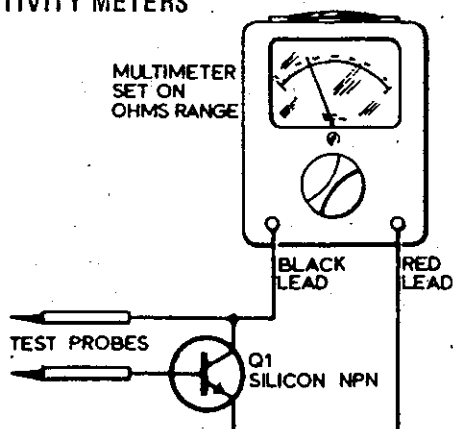
Attempts to correct the onboard memory failure on Oscar10 have not met with success to date. The satellite will now have to pass through a period when its attitude will be such that it will receive insufficient sunlight to keep its batteries recharged and their voltage is expected to fall to zero over the next month or so. It is sincerely hoped that no permanent damage will be caused during this process and that, just maybe, the abnormal condition which now exists will be nullified by the complete loss of applied voltage to the ICs in the memory. Should this happen, then, when the amount of solar illumination to its solar panels returns to normal at about the middle of December, it could become possible to reload the onboard computer memory. It appears, at present, that only time will tell of the final result.

In the meantime, it is very pleasant to be able to report that the launch of the Japanese satellite JAS1 went without a hitch. Signals are good on Mode J and the commissioning of the digital Mode is going much according to schedule. Now that the satellite is "up and running" it has been redesignated FO12 (Fuji Oscar 12).

Like all of the "low orbit" satellites, the access periods to FO12 are limited to about 20 minutes or less and the need to move one's antenna pointing angle quite quickly while having to cope with the resulting fast rate of change of doppler shift of frequency make operation via this satellite somewhat more arduous than for AO10.

Who will be the first station in this area to have Mode J digital communication operating capabilities (and maybe an automatic antenna tracking system)?

MEASURING HIGH RESISTANCE ON LOW SENSITIVITY METERS



Many inexpensive multimeters are unable to give useful readings on the ohms range much above 47k. However, by using almost any silicon NPN transistor (BC107 for example) in the arrangement shown will give considerable deflections for quite high values. The meter's scale will not apply but by noting the readings from high tolerance, high value resistors and some interpolation, fairly accurate measurements can be made. Note that on a multimeter the Black (negative) lead connects to the battery positive on the ohms range.

TEMPLATE AND HEAT SINKS FOR POWER TRANSISTORS



Power transistors similar to OC35, 28 etc., can be useful even when there is a complete electrical breakdown. They can be modified and utilized as either a power transistor heat sink, or as a making out and drilling template. Just remove the 'top hat' part of the transistor, by squeezing it in the jaws of a vice.

The top hat should fully detach itself from the main body and the main body can be modified further by filing it flat. Then remove the ceramic insulators and base and emitter leads by pulling with a pair of pliers. Little effort is required to do this.

TRANSISTOR SOCKET

If you have ever built a transistor tester and use it a lot, for testing large batches of unmarked devices for instance, you are probably aware of the shortcomings of normal transistor sockets which, in fairness, are not designed for continuous use.

A really hardy socket can be made from a B9A or B7G valve plug (not socket). These consist of pins which are hollowed out and are mounted on an insulated base. The spacing between the pins is ideal for use with most types of transistor.

WHEN THE MARK WENT MAD

By WILLI FRISCHAUER

Inflation is perhaps Australia's No. 1 problem, with the purchasing power of the dollar steadily falling. Fortunately much has been learnt about controlling national economies since runaway prices and the collapse of the mark almost shook Germany to pieces 50 years ago. Never will Germans forget the time when inflation brought hunger, unemployment—and an appalling aftermath

EAGERLY, a young composer named Mischa Spoliansky set out from his flat in Berlin to collect a royalty cheque. The date: November 1, 1923.

Having a thick wad of banknotes in his pocket totalling 28 million marks (equivalent to \$3.25 million at the 1913 rate of exchange), he decided to buy a copy of the *Berliner Tageblatt* to find out the day's tram fares. But Spoliansky couldn't afford the newspaper. Its price had soared to 3000 million marks.

When he boarded a tram for central Berlin, his 28 million marks bought him only a few minutes' ride. "I had to walk the rest of the way," he recalls. His royalty payment came to 3700 million marks (\$462 million at 1913 rates)—and

next morning this wasn't even enough to buy a litre of milk for his infant daughter.

Spoliansky—some ten years later he wrote the score for *Sanders of the River* and other film epics—was near despair. Runaway inflation had robbed money of all meaning. The simplest purchase involved a nonsense of noughts.

Later that afternoon, when Spoliansky's pregnant wife Eddie went shopping, she anxiously calculated the day's prices. Newspapers announced a daily "Multiplier," the figure by which prewar prices of provisions had to be multiplied. On November 2, Eddie was dismayed to discover that a loaf of bread costing 14 pfennigs (less than two cents) in 1913 was now on sale for 10,600 million marks (Multiplier: 76,200 million); one kilo of potatoes was 28,000 million marks; a box of 60 matches worked out at eight million marks (\$15,875 per matchstick at 1913 rates). Multipliers were readjusted—always upward—every 24 hours.

It was of course the Spolianskys and other ordinary people who suffered most. Wages rose too, but never by nearly enough to catch prices. Savings were wiped out overnight. Meat became desperately scarce; there were virtually no eggs or butter, since farmers were reluctant to part with their produce for the doubtful paper money.

Thief-Proof. At banks in provincial towns, cashiers waited with trolleys and even laundry baskets to collect money. Serial numbers and security precautions against bandits had long gone by the board, for who in these crazy days would bother to steal banknotes?

FOR • SALE

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CONTACT: GRAHAME UK2DUP
ON 044-439376
OR SEE ME AT THE
I.A.R.S. MEETINGS

COULD such a crisis develop in Australia? Economists consider it almost unthinkable. There are vital differences between our current situation and that of Germany in the 1920s. Much of today's business is done with "bank money"—credit cards, cheques, bank credit—instead of cash, and the government can, through the Reserve Bank, control the country's credit structure. Governments also have more sophisticated tax systems with which to deflate or reflate the economy.

To the defeated German nation of the 1920s, crushed by economic penalties that it was powerless to control, there was no such way out. Moreover, the long shadow of reparations had profound effects on Germany—and the whole world.

Although the transition from rentenmark to "stable value" reichsmark went smoothly enough, the stabilization brought deflation. Germany's number of unemployed climbed higher, reaching six million in 1933. Hitler then took the opportunity to seize power—the road from monetary chaos leading to the tyranny of dictatorship.

COAST-WIDE COMMUNICATIONS

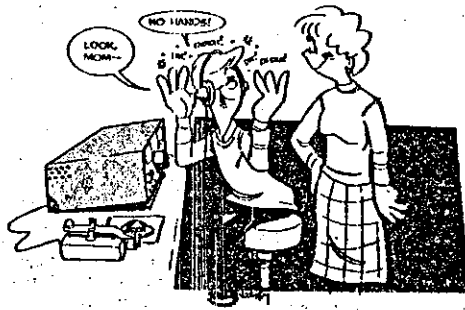
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HARGRAVE, DRV. THIRROUL

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VK2KWN WAYNE NEWPORT

Throw Away Your Pencil!



Whether it be to build operating confidence, to prepare for an exam or just for personal satisfaction, most amateurs want to increase their code speed. Here's one ham's method.

By Melvin Broadbuss, K6LJE
573 East Fremont
Fresno, CA 93710

Do you stumble through the code bands at 14 or 15 words per minute? Does 18 WPM push you? Would you upgrade to Extra if you could crack 20 WPM? Well, you can do it if you are willing to try breaking out of the slow-code strait jacket.

Until recently, I was hard pressed to copy 18 WPM. Today I'm copying 35 WPM, cold turkey. A veteran ham showed me the way.

I'll never forget the QSO that turned me around. The earphones were tight against my ears. I grabbed another pencil. The lead smoked across the last sheet of the tablet. 18 WPM was crowding me.

"By the way, Mel..." Pete went on as I came to the end of the sheet.

The break-in was working, so I leaned on the key for a short string of dits.

"Wait one, Pete, while I get more paper."

As I rose from the chair to look for another tablet, I heard Pete's signal coming from the earphones. He was laughing.

I jerked open the cabinet, grabbed two tablets and returned to the desk. Wiping the sweat from my fingers, I touched the paddle.

"Okay now, Pete. Have paper."

"Mel," he replied. I copied my name easily. "Would you like to be able to copy faster?" I could feel the blood rush. At 18 WPM I thought I was already blistering the frequency. Yet after 28 years of Amateur Radio—I was ashamed to admit—I had failed to break 20 WPM, though I had often tried.

I put down the pencil and swallowed hard. Touching the paddle gently, I sent one word: "Yes." His message came back like a shot.

"Throw away your pencil."

"What does he mean?" I wondered.

"How can I copy without the pencil?"

"Mel," Pete's signal filled my earphones, "do you copy?"

"Yes," I answered, "but I don't understand."

Again the code filled the phones: "Throw away your pencil. Now!"

My pulse quickened. He was serious! Hand shaking, heartbeat in the paddle, I tapped out, "Okay, Pete, you're asking a lot of me. But I'll try it."

I closed my eyes, put down the pencil and held my hands against the phones.

When it was all over, I walked out of the shack feeling nine feet tall.

Walking into the kitchen, I stammered to my wife and kids that their old man had chewed the rag for an hour without touching a pencil, an accomplishment I had thought impossible. My 12-year-old son was impressed.

"Gee, Dad, you can do everything!" he said. I don't know if he understood just what I had accomplished.

Twelve weeks later, hog-wild and crazy for CW, I copied 35 WPM, hands down. I'm only embarrassed that I had not done this long ago.

Your Turn

If you are still pencil-bound and wondering how you can get started, I can give you this answer: Throw away the pencil and start listening to the signals as if it were just another way of speaking.

First, seek out strong, well-listed signals—preferably from a keyboard—being sent at two or three words below your ceiling. (I recommend copying the keyboard signals whenever you can. When

starting out, you need their precision spacing, character formation and timing.) Once you have located a signal, fasten onto it like a leech. If it helps, put your elbows on the desk and close your eyes while the dits and dahs dance in your head.

The trick is to concentrate intently. If you are doing it right, it'll nearly suck you dry after the first two or three hours. In four or five weeks, however, after you've developed the technique, you won't have to concentrate so hard. Believe me, it gets easier and eventually becomes second nature—just like listening to a voice.

It's hard to describe, but with constant practice you can soon learn to flash the words onto the mind's screen, so to speak. Try visualizing each letter (eyes closed) as if they were printing on your inner eyelids. Rather than slavishly writing out each character, as though engraving it in stone, let your mind focus on each character. With practice, your mind will print it out for you.

What you'll hear in the beginning, as the really good CW ops have told us for years, are short words like *the, an, for, rig, name, watts*. You'll also begin to pick out prefixes and suffixes on longer words: *con-, pro-, in-, ing*. They will jump out at you.

What you're doing is training yourself to comprehend words and parts of words rather than single characters. That's the secret. The best CW operators have used this technique for years. However, this freehand method won't work on ciphers, random groups, or the like. Nor is it recommended for Novice class licensees who are still struggling with basic character recognition at very slow speeds. (A note of caution: No matter what your proficiency while copying in your head, there are times

when copying on paper is the preferable method, such as when handling emergency traffic.—Ed.]

Working Up the Speed

If things are going right, by the second week your eyes may look like two burnt holes, but you'll have a new skill and be on your way to mastery of 20-WPM code. Now you are ready for some bold transmissions. I mean you must get into some ragchews. Simply copying someone else's QSO, helpful as that is, will not generate the pressure you need for fast speed gains.

On the other hand, the white-knuckle pressure of hands-free ragchewing will drive up your speed like a rocket, as it did in my case. (If you get in over your head, you can always resort to the pencil.) But try not to use anything more than you absolutely have to—just brief notes from which to prepare replies.

When you're ready to take the plunge, pick out a keyboard "musician" sending at a speed that you estimate as three or four words below your best. Call him. As he responds, concentrate intently on his CW; you should be able to comprehend 60 to 70 percent of the message without writing it down. After about 20 minutes, if you haven't fainted, request a speed increase of 2 WPM; the keyboard ops will generally be happy to oblige.

If 20 WPM is close to your limit, the veins may be standing out on your neck, but keep the pressure on. The idea is to advance to a speed higher by five words or more than your best. What I'm suggesting is, of course, strenuous; but if you work at it, in a few weeks you will exceed 20 WPM.

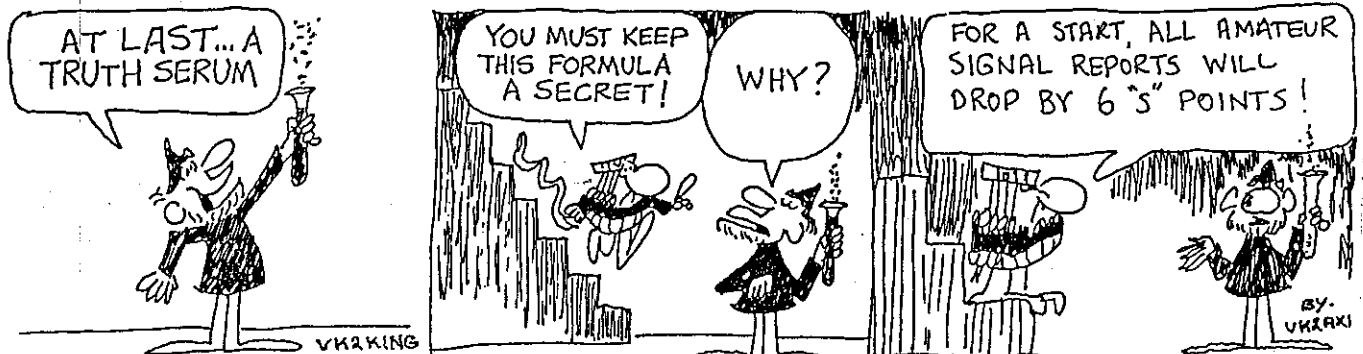
Be sure to explain to your contact that you are trying to increase your copy speed, or he may be annoyed if he discovers that you're not copying solidly at the speeds you requested.

I'd like to pass along a sequence that netted me a speed increase of 5 WPM in one week:

- 1) For the first 20 minutes of ragchew, copy at 3 WPM below your ceiling (you'll probably copy 60 percent).
 - 2) Copy at 3 WPM above your ceiling for 10 minutes (you'll copy about 30 percent).
 - 3) Copy at 5 WPM above your ceiling for 5 minutes (you'll copy about 20 percent).
 - 4) Go back to starting speed for 10 minutes, then conclude chat.
 - 5) Repeat steps 1-4 three times daily (or more) for one week, for 21 hands-free ragchews in one week.
- If that works for you as well as it worked for me, in seven days your copy speed will increase by 5 WPM or more.

Personal Satisfaction

Those who learn to copy in their heads are likely to get a lot of satisfaction from it, just as I did. Racing along at 30 WPM or more while taking the Morse in the brain is exhilarating. I found it—pardon the expression—to be a heady experience.



E.M.E. REPORT BY LYLE VK2ALU

Moonbounce Report - October 1986.

A reply has now been received from Dick Turrin W2IMU to my letter in which I advised him of details of the reoptimisation of our dual mode feed horn and asked for comments on results obtained. Dick has gone to a lot of trouble to analyse the information and has come up with some most useful advice. In general it would appear that the results obtained were about as good as could be expected but (as we had realised), this is not the most efficient feed for a 0.4 f/d dish. It had been used because of the relative ease in which it provides circular polarisation as compared to alternative feeds and because of the availability of separate receive and transmit ports, each with appropriate sense of polarisation, as part of the feed itself.

Dick stressed the importance of using only coaxial cable which has either a double braid outer screen, aluminum tape screen or semi rigid outer shield when making measurements at 1296MHz and above. He also took a close look at the front end configuration of our receiving system and suggested some further checks on it, though he considered that we were getting about the right ground noise to sky noise ratio and level of sun noise as could be obtained from our present set up.

It appears that some modifications should be made to my test equipment and additional checks made, both with and without the interdigital filter at present under construction.

Operation of VK2AMW on 1296MHz EME on Sunday 26th October is being considered as there is likely to be a number of stations on over that particular weekend. Any club members who would like to participate should advise me at the next meeting.

F.R.L.I. WINNERS

Week No: 21 D. BOYS
Week No: 22 P. JORDAN
Week No: 23 T. STONE
Week No: 24 J. HOFFMAN
Week No: 25 B. CRINNION

ABOUT YOUR FRIENDS

VK2QU Jim Bainbridge's XYL recently went into Hospital for an operation, we hope everything turns out ok for her and she will soon be home again.

Members would like to offer their CONDOLENCES to Mike VK2DFK and Family on the recent Bereavement of Mikes Grandmother who passed on at the age of 93 years.

WHICHEVER WAY YOU LOOK AT IT
YOU CANT GO PAST

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PHONE: 84 5650

THE ILLAWARRA AMATEUR RADIO SOCIETY

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

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

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

BROADCAST: On Sunday evening prior to the club meeting, at 7.00.p.m. R.T.T.Y. Mode, and at 7.15.p.m. on voice. Transmitted on 147.275.VHF, and relay on 3.562.Mhz. Callbacks will be taken after the voice broadcast.

W.I.A. RELAY: On 146.850. at 11.00.am. and at 7.30.p.m. each Sunday.
CLUB - NETS: On 3.562.Mhz. SSB on Sunday at 8.00.p.m. and a slow morse net on 28.440.Mhz. on Tuesday evenings at 8.00.p.m.

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

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

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

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

PRESIDENT	VK2OB - KEITH CURLE. 24. Beach Drv, Woonona.
VICE-PRESIDENT	VK2DYU- BILL CHADBURN. 45. Beltana Ave, Dapto.
SECRETARY	VK2EJH- JIM HAYES. 1 Kathleen Cres, Woonona.
TREASURER	VK2VAV-YKQ-DAVE HENDERSON. 8. Gladstone st. Bellambi.
AUDITOR	VK2ZHU- GEOFF CUTHBERT. 1 Nioka Ave, Kieraville.

GENERAL-COMMITTEE: VK2EXN- IAN CALLCOTT. VK2ENX- TONY MOWBRAY. VK2MT- ROB McKNIGHT.
 VK2ALK- LES KIRCHMAJER. VK2DWR- DAVE ROUTLEDGE. VK2JAM- PETER WOODS.
 VK2OE- WOJCIECH TOMCZYK. VK2BMH- MARTIN HUTCHINGS.

REPEATER - CHAIRMAN: VK2CAG - GRAEME DOWSE.

REPEATER - COMMITTEE: VK2EXN - IAN CALLCOTT. VK2EMV - MORRY. v. d. VORSTENBOSCH.

VK2DFK- MIKE KEECH. VK2MT- ROB McKNIGHT. VK2JAM- PETER WOODS. VK2EZY- DAVE COLLESS.

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

QSL-CARD'S IN : VK2DWR - DAVE ROUTLEDGE.

E.M.E. CO-ORDINATOR: VK2ALU - LYLE PATISON.

PUBLICITY - OFFICER: VK2VAV/YKQ - DAVE HENDERSON

BROADCAST - OFFICER: VK2ENX - TONY MOWBRAY.

CARTOONIST : VK2AXI - BRIAN WADE.

PROPAGATOR-EDITORS : VK2PZY - DAVE CAPON. VK2EMV- MORRY. v. d. VORSTENBOSCH.

PRINTERS : VK2DFK - MIKE KEECH. AND POSTED BY VK2EJH- JIM HAYES.

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

SUNDAY - EVENING - CLUB-NET - ROSTER:

FIRST SUNDAY OF THE MONTH : VK2MT - ROB McKNIGHT.

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

3 rd SUNDAY OF THE MONTH : VK2PZY- DAVE CAPON.

4 th SUNDAY OF THE MONTH : VK2DWR- DAVE ROUTLEDGE.

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