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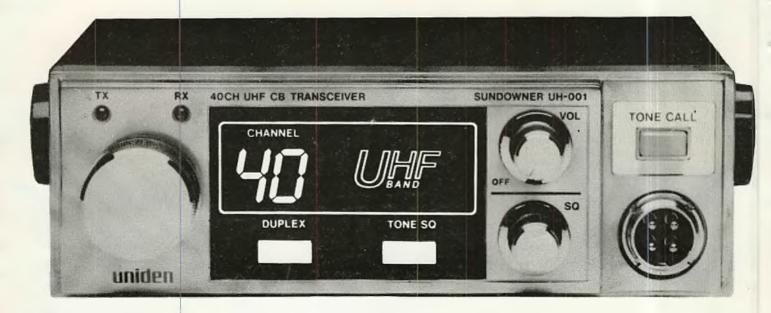


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CB Action_

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QUEENSLAND

Claude Olive Media Cnr. Upper Roma St & Eagle Tce BRISBANE, 4000 Phone (07) 846 2255

PRINTER AND PUBLISHER

Leonard J. Shaw 38 Granya Grove, Mt Eliza, Vic., 3930

PLACE OF PRINTING

Waverley Offset Publishing Group, Geddes Street, Mulgrave, and Quadricolor Industries, 33 Glerivale Crescent, Mulgrave.

PROPRIETOR

NEWSPRESS, A Division of Syme Media Pty. Ltd. 250 Spencer Street. Melbourne, 3000.

CB ACTION QUARTERLY is distributed in Victoria by Magdiss Pty Ltd, 250 Spencer St., Melbourne 3000; in S.A. by John Fairfax & Sons Limited; in Tasmania by The Mercury, 93 Macquarie St., Hobart 7000; in N.S.W., Queensland, W.A. and New Zealand by Network Distribution Company, 54 Park St., Sydney 2000.

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On Channel

Xmas has come and gone, and all I've got to show for it is an empty wallet, two gold fish, and a bitsa kitten. The weather was damn awful, and for the first summer in years, I haven't even acquired a suntan. But I'm about to fix that — in between now and when this issue goes on sale, I'll have spent two weeks in my favorite country, Thailand. Wonder what the poor people are doing?

* * *

All jokes aside, it's been an interesting quarter. The new Radcom Act came into force, and DOC have already used it to good effect. Last week in Melbourne Magistrate's Court a gentleman — to use the term loosely — was fined a princely sum, lost his gear, and had to pay a large part of the costs incurred in bringing the case to court. Maybe this type of enforcement will deter some of the whistlers, repeater blockers, foul mouths and sundry other nuisances from indulging in their mindless activities.

* * *

It says a lot for the boost in confidence that the RIs must have had when the new Act came into force — now they are confident enough to ring our office and tell us when an offender is "going down". It never happened before!

The avalanche of new rigs keeps on coming, both 27 MHz and UHF. We are booked out for several issues ahead. Maybe we should put out a special issue with just rig reviews in it to keep up with the backlog.

 $\star\star\star$

By the time this issue hits the news stands, the new Philips FM 620 will be available. We couldn't do a full rig test for this issue owing to time constraints, but we have given you enough information to make your mouth water a tad. Just for fun, the boys pitted the new unit against the FM 901 in my Henry. I wish they hadn't told me that the 620 killed my 901 in certain respects... They just like to see me unhappy I guess.

* + +

South Australians, don't despair if you can't find "Down South" in this issue. Rob Adams hasn't forwarded his copy at the time of writing, and I have lost my little black book, so I can't ring him to find out if he's still alive. If you read this Rob, please ring me.

We still need project material which some of you home brewers must have up your sleeve. Why don't you share them with the rest of our readers? Post them to me c/o GPO Box 628E, Melbourne 3001 if you think you have a good PROVEN idea — preferably typed — and with diagrams and/or pix to illustrate your work. We did receive a couple of short stories, but due to space limitations in this issue, and other problems, we couldn't put 'em in. But don't despair, they'll probably get a shirt in the next issue.



HOW many of us haven't experienced that sinking feeling which comes when we first spot a traffic policeman standing by the side of the road, signal ling us to pull over, the small black device mounted on the drip rail of his Commodore or Falcon attesting to the fact

that we've been "pinched" for exceeding the speed limit?

There's a view among many people that police radar traps are unfair, that they constitute "entrapment", especially when the police conceal themselves around a corner and "pick motorists off" as they zip by.

There's also been a great deal of controversy about the operating methods used by police, and some motorists, who have actually contested their speeding tickets have won, on the strength of irregularities in detection techniques.

One of the most outspoken critics of police radar detection methods has been Sydney electronics engineer Pat Mulligan, managing director of Creative Electronics, the manufacturer of the Whistler range of radar detectors.

Mulligan's longest-standing criticism of police in Australia has been that they did not always use their radar equipment correctly, and that there should be a standard operating procedure adopted by police in all states.

Mulligan contends that there is little evidence in statistics to support the use of police radar. "There has been no dramatic decrease in road toll since the introduction of radar in 1972," he says. "And anyway, road safety statistics also suggest that people who drive fast as a matter of course, don't have accidents.

The defensive attitude of most Police departments on the question of radar detection can be assessed by their collective attitude to a committee recently assembled to draw up an Australian standard for police radar operation.

Convened by the Standards Association of Australia as a result of many years' criticism of police, the committee failed to attract the support of police in Queensland and Western Australia. As a result, police input into the draft standard which the committee released in September 1985, came principally from NSW, Victoria and South Australia.

Mulligan, with nearly a decade of experience in the manufacture of radar detectors, served as a technical expert on the Committee.

"The fact that we now have a draft standard is a major breakthrough," Pat Mulligan says. "But there is no requirement for any agency to adopt this standard," he adds. "It is not law, although from time to time a state government may decide to make a particular Australian Standard law, thereby forcing those organisations affected by the standard to adhere to it."

Pat Mulligan makes the point that for many years now, police radar has been regarded as infallible. He concedes that accuracy of the equipment has never been a problem, but adds that lack of public awareness about how the police equipment should be used has created in the minds of many motorists

the idea that they have been unjustly or incorrectly hooked for speeding. He believes that the Standard's existence could result in a rationisation of the number of types of police radar used, and that uniformity in operating techniques will spread throughout Australia.

Among the recommendations made in the new standard are that radar antennae must be mounted outside the police car, that speeds displayed on the radar units must be in clear view of the operator.

The standard recommends that speeding vehicles be tracked for a minimum of three seconds to ensure a valid speed measurement. Currently, some police switch their detectors on for only half, or one second to obtain a reading. It was the committee's contention that this was not sufficient time to ensure an accurate measurement.

Covering as many country miles as we do, and always seeming to be in a hurry, effective radar detectors have a more than passing interest for us.

LEFT: Whistler 2000 is amazingly compact unit. ABOVE: Attachment to sun visor is effected by strong, adjustable spring clip.

that the operator must take into account the maximum area affected by the radar beam (up to 12 lanes wide), and that radar can only be used when the target vehicle can be clearly identified. (In other words, it is not one car in a group of five all exceeding the speed limit).

The new standard also exhorts police officers to use some personal judgement in radar detection. If, in his opinion, the speed displayed on the radar does not coincide with his own observations, the reading speed is to be considered invalid. Previously, if a radar onit said "110", that was it as far as the police were concerned.

So it was with a good deal of interest that we clipped Mulligan's Whistler 2000 to the sun visor of a road test car and headed out on a recent long weekend to look for "Smokey".

Since it WAS a long weekend, police radar units weren't hard to find. They were everywhere, and doing very brisk business of course. The Whistler 2000 is a handsome, compact unit which slips very easily over the thick, padded visors favoured on today's cars.

When the visor is pushed up against the headlining in the "normal" position, the Whistler's "lens" is ideally positioned for a clear view down the highway ahead,

unobstructed by wiper blades etc, which might otherwise interfere if the radar unit were mounted on top of the dash.

Since we were deliberately looking for police radar units, we drove very circumspectly, and sure enough, the little device flashed and beeped furiously whenever it got the right kind of signal.

Although the 2000 is inclined to pick up the odd signal from traffic lights, or burglar alarms around town, there can be absolutely no doubt what it is trying to tell you when it makes contact with a genuine radar signal.

During the weekend, we made four contacts altogether, and on each occasion we had between three and four kilometres to "wash off" speed before the dreaded blue and white Commodore hove into sight. We even did a U-turn at one point and drove back through the "trap" until the signal faded to establish a range.

That was when we got our "best" reading of a tick under 4.5km.

Whistler 2000 is simplicity to operate. There are no adjustments to be made at any point in its use, other than to the clip which holds it to the visor. All you have to do is turn it on and select the appropriate setting.

There are two operative modes, "on" setting for use on the highway, and "quiet" setting for use around town. The first provides a geiger counter-type audible alarm which increases in frequency as the source of the radar signal draws closer, while the latter is more subdued in its responses, since by far the majority of signals it will receive will be extraneous ones from microwave burglar alarms and so on. Considering the steep price of speeding fines these days, and the subsequent loss of driving privileges which can accrue if a driver is unfortunate enough to be prosecuted a number of times, the \$350 for the Whistler 2000 is not too much to ask.

We found that it did everything its manufacturer claimed for it.

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But no matter what we tell you about FM620, nothing will beat taking one for a test drive.

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LOG BOOK

NEW SYDNEY REPEATER

Sydney's longawaited Blue Mountains ch. 2/32 'metro' repeater is now operational.

Formerly licensed by the Western Radio Club, 2/32 is now under the sponsorship of the Blue Mountains Repeater Association— and for UHF CBers, it is a great way to start the new year! said BMRA Coordinator Mr Greg Towells.

As its name indicates, the repeater is located in the Blue Mountains, 70km west of Sydney.

At a height of over 400m above sea level, ch. 2/32 — callsign KUR-02 — gives reliable coverage of the entire Sydney region and beyond.

This includes many areas previously on the fringe of the established repeater network, and others that had no repeater access at all.

'The Blue Mountains repeater has not only become Sydney's most popular UHF CB repeater' said Mr Towells, 'but it has also lessened the crowding on the city's other three repeaters.'

In this way, he claims, 2/32 complements the coverage of the existing network — ch. 1/31 (southern suburbs), 3/33 (greater west) and 7/37 (north).

'Operators who may travel through-

out Sydney previously needed to change channels two or even three times, to keep in contact via repeaters. Now, 2/32 fulfills this need' said Mr Towells. 'This keeps other repeaters clear for their regular, more local users'.

Equipment used in the Blue Mountains repeater includes an FM-828U mobile unit, supplied by Philips. Both the transmit and receive antennae are 6 dB collinear base aerials, donated by Standard Communications.

With the maximum legal output of 21W ERP (effective radiated power), 2/32 has battery back-up and a one minute time-out.

Founders of the BMRA include Greg Towells and David Flynn, both of whom originally envisaged and developed the concept of the Sydney 'metro' UHF CB repeater two years ago.

The idea was drawn from amateur radios VHF & UHF repeater system, where channels with extended city-wide coverage supplement other 'local' repeaters. Supported by other UHF CV enthusiasts, the BMRA officially took over the 2/32 project from the Western Radio Club in December 1985. The repeater was on air less than a month later

Our thanks for getting 2/32 finally established,' said Mr Towells, 'must go to Eddy Ryan of Windsor Communications, Philips, Standard Communications, and the members and friends of the BMRA'.

The Blue Mountains Repeater Association can be contacted at PO Box 358 Granville NSW 2142.

DEPARTMENT APPEAL

A Department of Communications spokesman appealled to farmers across Australia to ensure all their two-way radio equipment was licensed so that any threat of interference to other services was averted.

The spokesman said that the appeal had become necessary following an upsurge in purchases of two-way radio equipment, in particular short-range UHF (Ultra High Frequency) CB radios, by farmers in many areas.

"UHF CB radio is extremely popular in rural districts because of the large number of channels available, the clarity of the signal and the mobility CB equipment offers," the spokesman said.

But the radio frequency spectrum is a limited resource and uncontrolled use by operators could lead to congestion and, ultimately, interference.

"So we insist, by law, that all two-way CB radio equipment is licensed. Twelve dollars, which is the licensing fee, is a very small price to pay to ensure that the airwaves are managed in an orderly and efficient manner."

The spokesman warned that under the Radiocommunications Act 1983 penalties for unlicensed use of radio equipment included confiscation of equipment and a fine of up to \$2000, or imprisonment for a maximum of twelve months.

Licences and further information could be obtained through Department of Communications offices.

NEW RADIO

A new beginners grade of licence for the Amateur Radio Service has been proposed by two prominent radio amateurs.

Jim Linton VK3PC and Roger Harrison VK2ZTB have coauthored a discussion paper entitled "Amateur Radio — Future Direction".

They propose a "Telephony Beginners Licence" to give access to segments of the Amateur 432MHz band and possibly the 144MHz band.

"The theory syllabus for the Telephony Beginners Licence could include elementary subjects at a Novice level, but without High Frequency and telegraphy specifics."

Candidates for this licence would be examined on the neces-

sary elements of basic electricity, magnetism, radio frequency generation, modulation, propogation and interference, the authors said.

This grade of licence would be attractive to raw beginners interested in radio and give them a step into the hobby of Amateur Radio.

It would easily fit into school curriculum as an elective subject, become an achievement badge for the secuts, guides and other youth groups, or could readily be tackled by mature-age enthusiasts.

The 3,000 word Linton-Harrison paper also proposes enhancing of the existing Novice, Limited and Full Call licences, and introduction of a new VHF/UHF multicodes licence.

REPEATER OFFENCE

A South Australian man who made the Adelaide CB radio repeater useless for operation by hundreds of other licensees was fined the maximum of \$40 in the Magistrate's Court and had a \$300 transceiver forfeited to the Department of Communications.

Before the Court was Michael Ptasznyk, of Mile End, South Australia. He was prosecuted under Regulation 12(1) of the Wireless Telegraphy Regulations for breach of the con-

LOG BOOK

ditions of his CB radio station licence.

Evidence was given that on 29 March 1985 departmental officers traced Ptasznyk to a site at Mount Gawler where he was found to be making what the Department considered to be unnecessary and unauthorised transmissions on the Ade-CB radio laide repeater.

Ptaszynk was continuously pressing his transmit button, and holding the microphone to the speaker of a cassette tape recorder resulting in the continuous broadcast of music, etc.

It was stated that the Department had received numerous complaints of such disruptions over the period leading up to Ptasznyk's apprehension.

In addition to the penalties listed above Ptasznyk was ordered to pay \$17 court costs and \$150 towards the cost of the Department's investigation.

NEW FACES

Rural Communications of Horsham have decided that the northern suburbs of Melbourne need their expertise.

They have opened a shop at the Ampol service station, 1341 Sydney Rd, Fawkner — on the left hand side going out of Mel-

bourne. The shop has stocks of all CB equipment, antennas, marine radios and antennas, service facilities, plenty of room to park, and you can also arrange long distance HF RFDS hire and sales at the same location.

Drop in and see Frank or Les — if you're lucky, you CB from the beginner just starting out to the serious DXer.

The Sydney CB Radio Centre stocks all top brand CBs, antennas and marine radios. David also has a huge range of accessories including those hard to get bits and pieces. He also provides a fitting and repair service and will

sories and the shop acts as a go between for information regarding club events etc.

The group was formed some three months ago and organises barbecues, trips away etc, each month. For any information regarding the group please contact David at the Sydney



CB ACTION/JUST COMMUNICATIONS WORDMAZE WINNER

Congratulations to Mr John Cook of Elizabeth West, South Australia! John's was the first correct entry opened, and he wins a GE-35826 AM/SSB mobile, plus a gutter mount and mobile whip from Just Communications, in Mitcham Victoria.

Your prizes should be in your hands by

the time this issue goes on sale, and we would like to thank Peter and Jenny Greenham of Just Communications for making it all possible.

Now turn to page 15 and try your luck in the new competition. Entries close on 14 May 1986.

Good luck!

might even crack it for a cuppal

NEW CB SHOP

Good news for all CB enthusiasts on the North Shore. The Sydney CB Radio Centre has now been operating for four months and in that time has had to move to bigger and better premises, located at 7/688 Pittwater Road, Brookvale opposite the post office.

The owner/manager, David Smith, has been involved in CB since 1977 and has a broad knowledge of SWR your

new antenna free of charge.

The North Shore has been forgotten for quite some time now and it is good to see someone out that way having a go. David's prices are very competitive and he insists he will not be undersold.

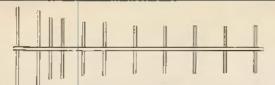
David, an avid CBer himself, is also involved with the newly formed Sydney Radio Group which now boasts 80 members scattered throughout Sydney. All members are entitled to substantial discounts on acces-

CB Radio Centre during business hours, on 938 5537.

HELLO OUT

Bint Services has asked us to please run the following: In October of last year a CB operator ordered 1000 QSL cards, but, failed to include a return address. The only information we have is that the cards are headed "Radiation Station of the Nation" and the cheque signatory was J. Briggs.

We have been holding the cards



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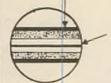
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since then and figured that someone would complain by now (Feb). but, complaint.

Please, if you know of the "Radia-tion Station" for evervone's sake ask them to give us a mailing address as we hate to think that somewhere out there is a client who now thinks he/she has been ripped off.

The address is the same as it's been for the past seven years; BINT Services, P.O. Box 323, Cheltenham. 3192. Vic.

(They do a nice line in QSL cards - and the prices are right -Ed's note).

NEW WRC COMMITTEE

Following elections held in December last year, the Western Radio Club's new Executive Committee is: Chairman, Ken Upton; General Secretary, Ken Rayner; Treasurer, Raiph Masters: Minutes Secretary, Len Burns.

'In 1986, the Western Radio Club is set to strengthen its role as Sydney's number one CB club". said Mr Upton. 'This will range from more membership involvement in our various projects, to aiming to increase membership as a whole'.

Mr Upton also said that the club was already making plans for the 1988 Bicentennary. 'The club made a good effort for the 1985 International Youth Year. and in effect 1988 is Australia's Year', he claimed.

'We have some radio-oriented projects underway for 1988. and hope that other Australian radio clubs will get involved as well.

The Western Radio Club can be contacted at PO Box 666 Blacktown NSW 2148

ROYCE RETURNS

Hatadi Electronics has announced the return of the famous Royce brand of CB radios.

Familiar to enthusiasts from the earlier days of Australian CB. Hatadi is now the national distributor for Royce.

accepted this brand as part of our stable because it has been around since the early '70s, and has consistently produced excellent models."



tions supplier for this vear's event.

The 1985 safaristyle rally saw 283 entrants reduced to a field of less than 100. after the 6000 km Sydney-Darwin marathon that stretched across the Simpson Desert.

The first two places went to the 4WD Mitsubishi Paieros driven by Andrew Cowan and Ross Dunkerton with two-way radios supplied by Hatadi-Pearce Simpson.

The 1986 safari is expected to attract 250 starters, with two-way radio now better contact between organisers, competitors and the media,' said Mr Shaw.

Furthermore, Hatadi's head office has moved to new premises at Mona Vale, 15 km north of its old Brookvale location. This has provided an additional 5000 so ft to house their expanding range of CB radios, car stereo equipment and home electronics.

The new address is 20 Wilmette Place. Mona Vale, NSW, 2103. Ph (02) 997 7077 (6 lines).

1986 also brings many new faces to the Pearce-Simpson line-up (lion-up?). On the HF side is the Super Lion Mk 2 (full-AM/SSB feature mobile), Super Puma (slim-line AM/SSB mobile), Simba and Super Lynx AM mobiles, and the Manx AM base station.

There is also the marine Sea Simba, a 10-channel AM unit. and the SOS Handheld emergency radio (40 channels, AM, full power).

For more information on these products, contact Hatadi Electronics or your nearest Pearce-Simpson dealer.



Inset: ANDREW COWAN
Above: The 4WD Mitsubishi THE YEAR OF
Pajero as it competed in the THE CAT? 1985 Paris-Dakar rally.

Flagships of the relaunch will be the Royce TS-639, a deluxe AM/SSB mobile, and the new TS-133 UHF CB.

'Made by Royce in Japan, these units are hardly cheap, but they are certainly very good," said a Hatadi spokesman. 'We

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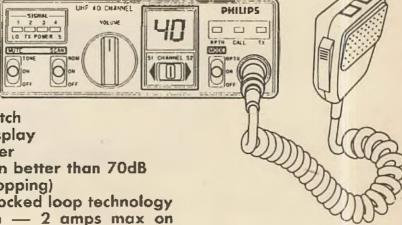
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I believe that the hidden words are:

1(8)
2(6)
3(8)
4(7)
5two words (6,3)
6. initials (3)
7two words (5,4)
8(4)
9(12)
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10(5,4)

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STOP LOOKING – IT'S HERE

It's here at last — the new FM620 UHF rig from Philips. By the time that this issue hits the news stands, the official announcement should have been made, and the dealers will have had their big release night.

Unfortunately we couldn't do a rig test for this issue, but it is first cab off the rank for the next one.

We have had a bit of a play around with the unit which we had for photographing the front cover, and we can tell you, the FM 620 is a doozy. Don't be fooled by the outer case, which is very similar in a number of respects to the old FM 320, it's what's inside that counts. We put the unit we had up against the FM 901 in the editor's car, and dare we say it — it was better in a number of ways! The editor's livid.

The FM 620 is controlled by a micro computer, based on the FM 900 series design, but adapted for CB use. Standard modes include: scan all 40 channels; scan eight repeater channels; scan all 40 channels plus the programmed nominated channel of your choice; scan the eight repeater channels plus the programmed nominated channel of your choice.

The micro computer has also been designed to cope with any changes to the CBRS — the unit is replaceable without soldering.

To nominate your own preferred channel, you simply tell the dealer what channel you want, and he can adjust the concealed dipswitch inside the unit. If you change your mind, then simply take the unit back to the dealer, and he adjusts it accordingly.

Another improvement over the FM 320 is most welcome. Owners of the



FM 320 will recall the inconvenience caused by the rig reverting to channel 11 every time the power was switched off, and turned back on again. This was most embarassing when using the unit off road, testing four wheel drives for one of our sister magazines, 4x4 Australia. It wasn't too bad before the repeater mods were fitted to the editor's rigs. We could select channel 40 with the "Nominate" switch and just leave it there, but when the repeater mod is installed, you lose this advantage because the switch is used to select the repeater mode. Now, even when you turn the FM 620 off at the rig, the unit will return to the channel which you last used before you switched it off -BUT, if you disconnect the rig from the power source, or turn the power source off, then you are back to square one. Just make sure you tap into a permanently "hot" wire on your mobile, not one connected through the accessory switch.

What else is new?

Briefly, the receiver is much more sensitive, and has a greatly enhanced immunity from unwanted signals and interference. The received audio is first class commercial quality.

And, there is a tone control to allow you to have the audio just the way you want it.

We spoke briefly to another station while having our play around, and he

asked some very awkward questions relating to what type of rig we were using. We couldn't "let the cat out of the bag" at that time, so we told him that it was an FM 901, and he stated "I thought so, the audio is too good for a CB rig"!!!

Another improvement we noticed was the brightness of the LEDs — the channel indicator included. Philips tell us that the intensity of the visuals are ten times brighter than any other rig in the FM 620's price range. The channel readout was easily readable even in daylight.

The repeater mode controls have also been relocated, and are much easier to explain to a novice CBer.

The selcall option is now a "do it yourself" plug-in module, and is reported as being lower in cost than the old repeater option.

Make sure you watch out for our next issue with the full rig test and a full report on all the goodies aboard the FM 620.

Even after our short encounter with the unit, we are of the opinion that the rig should have been designated the FM 640 — it's twice as good as the 320 . . .

Well, almost!

And the really good news — it will sell at around the same price as the unit it replaces. More next issue — hope you can wait that long!





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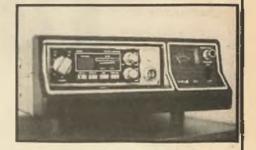


This little bit of information may be useful for those UHF Leopard owners out there.

While trying to find a suitable box to house the Leopard to make it into a base station we came across an old AM Base unit (there are still some of these around) and found the Leopard will fit exactly where the old Roberts used to go, the inside brackets need opening just a fraction and the mounting

holes moved back about 5mm. The original power supply drives the rig ok.

A further mod, to use the existing SWR meter as a signal strength meter came next, this we did by making a connection to the outer side of the resistor across trim pot RT3 (underside of pcb) to a 3.5mm plug & socket fitted to the rear of rig, from here on to one side of meter the other side goes back to chassis ground. It was found that a small signal diode (germanium 1N34 or similar) was required in the "hot" side to the meter - this will allow it to read RX and also indicate TX power. All existing meter connections to the power supply pcb are removed, RT3 will require a slight adjustment to give a central reading of meter needle to an S9 signal (approximately).



Of course the meter only gives a relative indication, but is far superior for lining up a beam than the LEDs.

The SWR/catibrate switch can also be used in the "hot" line to switch from meter to LEDs. The SWR/cal, control can be placed in this line to adjust the meter to a reference point.

Altogether it makes a very tidy and functional base station.

Graeme VCH035 & Bert VCO583 CORINELLA, VICTORIA

AR2002 SCANNER

There seems to be a certain hush which has descended on the scanner scene of late — it's yonks since we had a new one to test!

The AR-2002 provided by John Cullen and Timeplus was certainly welcomed with open arms, and is a worthy addition to the scanners already on the market.

A most impressive looking piece of equipment, the AR-2002 is compact, easy to operate, and offers all the features you could want, including top performance. Signal strength meter, keyboard lock, direct frequency entry via a soft touch keyboard, wide and narrow FM reception, AM reception LCD channel readout, clock, priority facility, lock out for unwanted channels, variable speed scan and search, manual frequency control by shaft encoder, 20 memory channels, socket for optional RS 232 interface board, attenuator, and state of the art circuitry, to name a few more.

We had the AR-2002 for a couple of weeks over the Xmas break, and could not fault the unit. Initially, we had two complaints — seemingly poor sensitivity, and the need to go through a complete programming operation if you wanted to step down instead of up through a particular frequency range.



If we had looked a bit more closely at the handbook, these "problems" would never have arisen. We had the attenuator switched in — it's located on the rear panel of the rig, and, we hadn't found the shaft control facility to step either up or down from a nominated frequency. You can use the search facility in either direction, but if you want to step slowly through the band, the shaft control is ideal.

The frequency range is as follows: continuous coverage from 25 MHz to 550 MHz, and from 800 MHz to 1300 MHz. That only leaves a small gap between 550 and 800 MHz. You would have to be hard to please if these specs don't meet your requirements.

The AR-2002 does not come cheap — at the time of writing it was selling for a whiff under \$700, but if you are into scanning, it's worth the bread.

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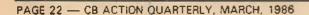
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RIG REPORT



PEARCE-SIMPSON SIMBA AM MOBILE

Hatadi Pearce-Simpson have released a number of new rigs over the past few months. The Simba AM-only mobile is the first of their new generation which we have had for test, and slots into their range as their top of the line AM unit.

FEATURES

The Simba follows the established traditions in most areas. The channel readout is a large red LED, and the S/RF/modulation meter consists of a series of LEDs instead of the more familiar analogue meter which us oldies came to know and love.

A channel 9 priority switch is incorporated on the front panel, which enables the unit to be switched directly to the emergency channel without using the channel selector.

The other slide switch on the front panel has three positions - ANL (automatic noise limiter), CB, and PA (public address).

The two rotary controls are for On-/Off/Volume, and squelch, on the left, and a mic gain and RF gain on the right (these are "piggy back" or concentric controls). The microphone is front mounted, God bless their little cotton socks, albeit on the left-hand side of the front panel. But, we are getting there! As you are well aware, side mounted microphones have been our

pet hate since 1976, and it looks like our message is getting through, although it has taken 10 years for it to make the trip.

On the rear panel you will find the power connector, antenna connector, and jacks for an extension speaker and PA speaker.

The mounting bracket is "standard issue", having holes for the mounting hardware, not slots.

We did receive a letter from a reader taking us to task for making an issue of such small points as holes in mounting brackets, and elusive anti-vibration washers, and included with the letter was a diagram showing how to convert the holes to slots . . .

I know we wouldn't qualify for a Rhodes scholarship, but we do have few brains, at least enough to work that out for ourselves. The reader missed the whole point of writing rig reviews in the first place, which is to point out to the potential buyer exactly what he can expect when he opens the

RIG REPORT

box. What he chooses to do after that point is up to the buyer. Have you ever read a vehicle test which gives detailed instruction on how to convert a stock standard family car into a fire breathing hoon machine? Not Pygmalion likely! We just hope that the manufacturer-/distributor of the rig in question makes notes of where we (the CBer) feel that there are deficiencies in design, which could be overcome very simply in most cases — like the placement of the mic. connector to give you a f'rinstance. As we said, it's taken a while, but we got there.

The front panel of the Simba is well laid out, and features black plastic, with white lettering. The outer case is also black, with a crackle finish. While the crackle finish looks great when it is new, we've noticed that it collects dust like crazy, and needs constant attention to keep it looking good. We much prefer the smoother finish — or a color which doesn't show the dust so much.

PERFORMANCE Receiver

The sensitivity of the Simba is good at 0.38uV for 12dB SINAD, at 75 percent modulation, with the rig adjusted to normal listening level. Distortion of the audio was evident at high volume, a common fault with CB receivers.

We recently had the experience with a UHF hand-held unit which we had loaned to an acquaintance. He complained that the audio was unreadable, and we thought that the speaker may have given up the ghost. It transpired that our friend only has one volume setting — flat out — but, when we demonstrated that it was easier to make out what was being said by using the volume control at a lower level, he came around to our way of thinking. Strangely enough, he reported that the same approach worked on his little transistor radio . . .

The squelch circuitry is quite good, coming on at 0.2uV under normal conditions. Full on, the squelch was not opened until the test signal reached 3000uV, which is one big signal.

The ANL was reasonably effective on ignition noise, although it did tend to reduce the audio to a marked degree.



Transmit

Using the recommended 13.8 volts power source, the output weighed in at 3.4 watts, with the mic. gain control wound full on. On the test rig, the mic. gain control was best used in the full on position, and the inclusion of such a control on an AM-only rig had us puzzled at the start, as it seems a bit of a luxury.

However, it came to our notice that this control also doubled as a volume control for the rig when it was used in the PA mode — normally, this function is carried out by the volume control. The LEDs of the modulation meter were accurate at 100 percent modulation, but tended to be a bit optimistic at lower settings, but this probably varies with each and every rig off the assembly line.

Frequency accuracy was within limits at 150 Hz low, and did not tend to alter as the rig went through various temperature changes during the test.

The transmitted audio was reported as being a tad on the bassy side, but quite pleasant to listen to.

Construction

The outer case is an acceptable fit, but the screws holding the case together are of the self tapping variety, and our tech — known for his gentle touch — managed to strip one of the threads when re-assembling the unit.

The finish overall is good, and the circuitry inside is par for the course for

rigs produced in Korea. The layout is good, with no servicing problems, and the soldering gave the impression that dry joints would be few and far between. While the Korean manufacturers have made some startling advances with regard to their ability to produce good circuit boards, their expertise still does not match the masters in Japan, but knowing the Koreans' determination to succeed at all things, you can bet that they are working on it.

COMMENTS

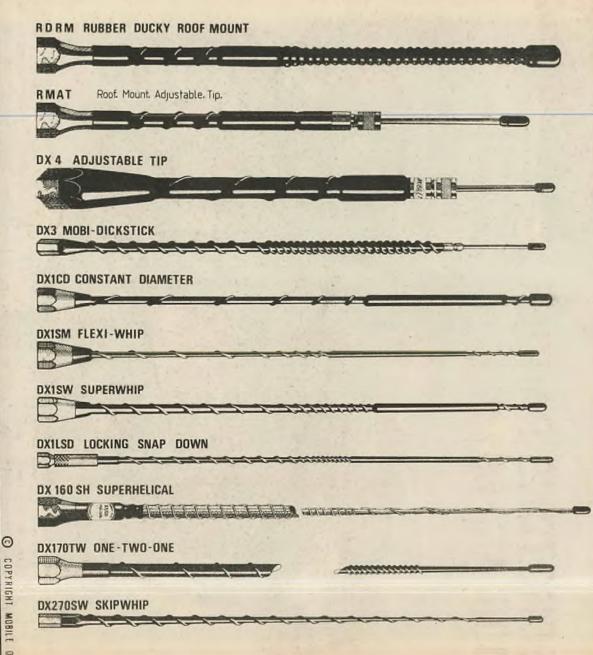
Apart from those points already covered, we found that the LED channel display was not quite bright enough for daylight operation. This could be easily remedied on the production line our tech tells us, and in fact may have been idiosyncratic to the test rig. Adjacent channel rejection was not good -a 100uV signal caused desensitisation of the receiver over a wide range of channels, but bear in mind that this problem afflicts most CB rigs. It just isn't possible to include the sophisticated circuitry necessary to overcome: the problem and still be able to offer the rig at a viable price.

The recommended retail price of the Simba is \$149, and at this price represents good value for a top of the line AM-only unit.

Our thanks to John Cullen of Timeplus, and Hatadi Pearce-Simpson for supplying the rig for testing.









Someone tried to tell us the other day that the CB market was dead and gone. If that's so, how come the number of importers is constantly on the increase? A new name on the scene, Echotone Imports sent us two new rigs for tests, the Ranger 400 as tested here and the Ranger 200, which we will look at some time in the future. They also sent a snazzy looking marine unit, which looked slightly familiar as far as the size and exterior design was concerned.

We hear that there is also another well known identity soon to get involved in the CB game, and he has a reputation for really competing. No names yet — the information was given to us in confidence, but if this is indicative of an industry that is dead and gone, someone has their facts screwed up.

Having got that out of our system, we'll proceed with the job at hand — testing the Ranger 400.

FEATURES

The Ranger 400 is an AM only 40 channel unit, aimed at the top end of the AM only market. It is manufactured in Korea. The unit is quite compact, and really does give the impression of solidity, but more on that later. The front panel is uncluttered, and well laid out, with an LED channel readout, CB/PA facility, and also a High/Low tone control - both are slide controls. The two rotary controls are for On/Off/Volume, and Squelch. The S/RF meter is of the analogue type we saw when CB came to our shores originally, and which some people now consider to be old fashioned. That's a matter of opinion in our view, there's nothing quite like being able to watch the fine alterations in needle deflection when testing an antenna or conducting tests with other stations. LEDs are ok, but they seem to lack the finer points.

The rear panel is standard — power socket, antenna connector, and provi-

sion for PA and an external speaker. As mentioned earlier, one gets the impression of the Ranger 400 being a fairly solid piece of machinery. If some of the car manufacturers made their cars from a similar quality steel to the outer case of this unit, the "metal ants" would take another two years to bore through it. We can think of a comparison which is sometimes used which has to do with masonry and toilets, but we won't use it in deference to some of our more sensitive readers.

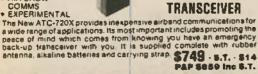
Frankly, the whole outer case construction took us back about ten years, even down to the screws used to hold the case together. Screws? Well, more like bolts actually. Even the mounting bracket screws have some decent substance to them — they are twice as thick as the normal run of recent offerings. Wonder if they picked up a truck load of cabinets from the old Xtal factory? In essence, the construction techniques used are quite dated, but at least they are solid.

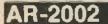
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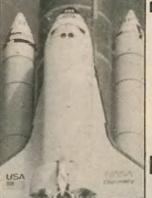
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The dies constitution of the second s						
	CIB-4 (Arren)			CHB-5 (Seven)		
	Core diam (mm)	Vit of 200mm	Tensile Str (kg)	Core diam (mm)	WI of 200mm (gm)	Tensile Str (kg)
Depeglass	2.5	39	430	3.0	63	560
Steel wire	2.9	.56	370	3 15	93	530

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Comparison between case screws used in construction of the Ranger (top), and a typical current model of another brand. Note also the difference in size of the holes for the mounting screws. The Ranger's are much larger.

RIG REPORT

There are even rubber pads around the rear panel to cushion vibration, and rubber washers under the heads of the case screws...

PERFORMANCE Receiver

Sensitivity is quite acceptable for an AM-only rig, at 0.5uV for 12 dB SINAD at 75 percent modulation. Audio distortion was noticed at higher volumes,

tortion was noticed at higher volumes, but unless you are a bit "Mutt and Jeff" (deaf), and need high audio output, this shouldn't worry the average user.

Adjacent channel rejection was quite good by CB standards, and in fact was much better than other similar rigs which we have had for test in recent times.

The squelch circuitry was also good, with a threshold of 0.3uV minimum, and 400 uV maximum. An average setting needed a signal in the order of 0.5 uV to crack it open.

The S/RF meter was more than somewhat on the mean side in the upper end of its scale. It registered a strength 9 signal at 20 uV, and we couldn't get it to full scale deflection even with a 750 uV signal. Probably just meter adjustment, according to our tech.

Incoming audio was good, and the High/Low tone control worked well.

Transmitter

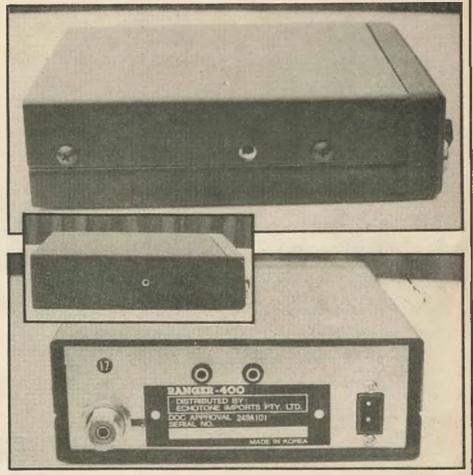
Using the standard test voltage of 13.8 volts, the Ranger 400 squirted a healthy 4 watts up the stick (or in this case, into the dummy load). On air the transmitted audio was reported as good, even though it was a trifle on the bassy side. The test instruments showed that the audio waveform was slightly assymetrical (biased towards one sideband), but it certainly wasn't noticable during the on air tests.

Frequency accuracy was within spec at 300Hz low, which is not noticable on AM.

There was a strange noise following the release of the transmit button after each over, which was diagnosed as being the PLL inhibit circuitry not locking on to the frequency quickly enough on receive.

COMMENTS

Our tech made the comment that this unit was "a blast from the past" as far as construction and circuit design was concerned. The circuitry looks to



be hand soldered, not wave soldered, and the design was, although adequate, somewhat old, but using updated components. In fact, he thought that the lag in the PLL circuitry could be partly attributed to this factor. Still, it seemed to work well.

The LED channel readout was not sufficiently bright for our taste, especially in daylight, but maybe this can be rectified easily by a serviceman.

The mounting bracket could do with the same treatment as the outer case a bit more beef, and also, it was not slotted for quick release. As we pointed out in our other rig test in this issue, this isn't a major problem, and can be modified by the buyer, but we report on what you get straight from the box, not what you can do afterwards.

Finally, the PA mode lacked punch, and if this is important to you, should be borne in mind when selecting your rid.

The overall finish of the Ranger 400 is good. The color scheme is all black, with white lettering. The front panel is moulded plastic, and the case finish is smooth matte black, which doesn't tend to gather dust — quite impressive.

The front mounted microphone gets our seal of approval, as does the handbook which includes a section on adjustment, and other technical data which would be of use to a serviceman not familiar with this particular rig. Budding screwdriver freaks and exponents of the odd "murderfication" should keep this section of the manual intact, so that a qualified technician can rectify their mistakes . . .

The Ranger 400 is priced in the top bracket at \$149 recommended retail, and will be competitive.

Our thanks to John Yang of Echotone Imports for supplying the rig for our test.

OUT WEST

By Don Stewart

An item in The West Australian on 1 Feb 86 made me chuckle. In an article praising a local Sea Rescue Service and urging boat owners to install radios in their boats, the writer displayed his lack of research by saying:

Installing the Seven Hertz radio would give the boat owner the security of knowing that if he got into trouble, there was someone listening 24

hours a day . . .

On Seven Hertz??? I wonder what sort of an-

tenna they use??

I assume they meant 27MHz Marine radio because they also printed a photo of a Sea Rescue chap with a Marine radio installed as a base set in his garage. I hope he had a Marine Base licence or that photo might have dropped him right in the proverbial you-know-what.

Just in case that last paragraph has you wondering — a normal marine transceiver licence permits you to use the set "Marine Mobile". Using it 'Land Mobile' or 'Land Base' is an offence unless

you have special permission.

* * *

In "Log Book" on page 11 of the last issue, under the sub-heading "Scrambler", we were told of an electronics chain that was considering the introduction of a scrambler for UHF CB.

The article concluded: "Maybe someone should

tell them that scramblers are illegal.

This item caused no end of discussion and the general concensus was "Thank god they are illegal. Who wants scramblers burping all over our nice clean UHF."

A bit of worry came in when someone said he

was sure that they were legal.

I checked with DOC Perth and was surprised (not to mention shocked, stunned and horrified)

by their reply:
"VPDS (Voice Privacy Devices: Scramblers) can be employed within the CBRS subject to compliance with the conditions stipulated in DOC68 (Part 4).

They assured me this has been verified by telex from the mystic 'East' and they also sent me a copy of DOC68 (Part 4), which I hope Peter can

find room to reprint here.

Come on Mr Duffy, this is the Citizen Band Radio Service you are fooling about with — remember us --- we are the mob who are supposed to regulate their own hobby but can't find anyone to punish the bad guys. Don't we have enough problems already? One of the reasons given for not permitting morse on CB was that it was not 'Clear Voice' as required for the CBRS, and now you permit scramblers. Fair Go!!

What are you going to do if people using scramblers decide to stay scrambled all the time? Will you put inspectors on full time to track them down? The hell you will, we have already been told that you cannot afford that sort of exercise.

What about the clown who can tape a scrambled message and play it back later just to be disruptive? You won't know if it is a genuine message or not.

I imagine that a strong signal laid over a scrambled message would cause it to come out garbled and you can bet that this will go on - so we will have even more disruption on the CBRS.

And what of the poor soul trapped in rising flood waters and bleating for help through his hand held radio into a repeater while a couple of businessmen hold a scrambled conversation? The few minutes lost could mean life or death for him.

It is no use saying that scramblers are so expensive that there will be very few used — the way electronics technology is advancing, and if the market exists, we could see scramblers on the shelves for \$40 or \$50 in a few years and then it would be too late to stop them. The best time to stop the use of scramblers in the CBRS is right NOW.

Any business that simply MUST have privacy should use their scramblers on commercial two way radio and those who want communication "on the cheap" should have to put up with the party line, clear voice CBRS that the rest of us live with and enjoy.

* * *

I have a tip for Philips TMC if one of their members should happen to read this. The tip is, retain the 'S' meter on future UHF CB radios - they are a strong selling point.

The reason is simple — you can't do a good antenna comparison check without it. I would like a dollar for every time I have heard "Can someone with a 320 do an antenna comparison for me?"

I know many people who, when it comes time to get a new set, will be prepared to accept a slightly lower all round performance provided they get an 'S' meter. (Not that Philips give low performance — my two 320s will do me — but you know what I meanl.

How many people around Australia are currently spending money and hours trying to fit an 'S'

meter to their LED indicating sets?

The UHF Repeater list in the last issue, and even the latest list sent to me by DOC in Perth, shows the callsign of channel 2/32 in Bunbury as BUN 02, but it is not.

After listening carefully and then talking to the owner about it I can say for certain that it is BUN 01 and he has the licence to prove it is correct. Vern was told that it was given that number because it was the first repeater in Bunbury, and it will remain BUN 01 even if the channel is changed later.

Because it is such a common thing, people seem to expect that the last digit of the callsign will be the channel number, but it is not always the case. Channel 4/34 Mt Barker was changed to 7/37, but I will bet that the callsign is still MTB 04. It costs a lot of money to change an automatic callsign device, but only a flick of a switch to change the channel.

I wonder how many other callsigns are wrongly listed?

What has happened to Philips' channel 1/31 repeater at Wanneroo?

It seems it was taken out of service some time ago for repairs and/or testing a new site. This is fair enough, but it is taking an awfully long time getting back on air and, any time it does fire up, it seems to be testing a site for somebody else.

I know this is a private repeater and Philips can do what they like with it (within the regulations), but fair is fair Mr Philips. A lot of people spent time and money getting masts and antenna gear to a standard which gave them access to channel 1/31 and now they are out in the cold again.

I wouldn't take any bets, but it will probably be working by the time this goes to print, that's Murphy's Law.

I must say I was shocked when I read the article 'Radio Hams Lose Their Licences' in The West Australian on 20 Dec 85 (which I hope Peter will reprint here.).

Can you believe that for just having a bit of fun on the air waves with such trifles as abuse, threats, insults, sexual innuendo, singing and mimicking, some poor soul was sentenced to one whole week suspension of licence and another was served up a double sentence — two weeks.

It's mind boggling! I thought such cruel and sadistic treatment went out with convict ships.

The severity of the sentence is reflected in the article. 'The Hams Opt Out Of CB Label', which appeared two days later.

Obviously Mr Parsonage was so stunned by it all that he didn't even mention sentences — all he wanted to do was to dissociate the real Hams from the CB scene as quickly as possible in case they started to receive the same draconian treatment.

I know anything can happen in Queensland, but if the courts in other states start dishing out such sentences we are in big trouble.

Honestly, those chaps might just as well have

been stretched on the rack, or flogged.
What a good idea! I wonder why the judge didn't think of that?

This business of having to put a sticker on your car if you have a transceiver licence leaves me a bit cool.

Talking to DOC about it I get the impression that they are all for it and that it will probably come to pass, but I really can't see it doing much good.

It may have a salutory effect on unlicenced CBers who have a fixed antenna on their vehicle they will stand out like a sore thumb - but what about all the base sets and all those pocketable hand held units?

I will go along with anything that might help to clean up our hobby so I will give it a try, but it looks like just more red tape, loopholes and confusion to

I think a few more inspectors out on the job and some stiffer sentences would be more to the point.

Can anyone tell me what regulations our Indonesian neighbours have to abide by for the privilege of using CB radio? Although we might find it hard to believe, I have heard that their laws are pretty tough and strictly enforced.

Another thing I have heard, from an Indonesian, is that their side band call channel is 27 USB and that AMers use even numbered channels and side banders use the odd numbers. If this is true then our side band call channel is one of their AM talk channels — no wonder we get so much hash.

I'm sure I am not the only one who would like to know the facts if anyone can supply them.

While we are on the subject, it would be nice if some of our rougher Australian CBers could show a little more tolerance and decorum at times. It is not very nice hearing a coarse Australian voice saying "Why don't you f... off this channel you Indo slut," to an Indonesian woman who is conversing, in her own language, to an unheard station. Not only does it not sound good from this end but a lot of Indonesians speak very good English, so it can't do much for international goodwill either.

Just to show that it was possible, here is one answer to the problem WOOD + FIRE = SMOKE in the last issue: 6550 + 7982 = 14532. Thanks again to VCM 308 Russell.

In the last issue I said that this would be the last puzzle unless I received an avalanche of mail demanding more. I was completely underwhelmed by the response — not one letter — so I presume you agree with my decision.

As a matter of fact I have not received any mail from anyone on any topic for so long that the postman thinks I have moved out. For heavens sake, anybody, write and let me know what is going on out there — it gets lonely in this padded cell.

The address is BR282 Don, PO Box 31, Bunbury, 6230.

UHF-THE RIGS YOU NEVER SAW!

'There's many a slip 'twixt the cup and the lip' said Shakespeare. The old master, of course, never had 477 MHz in mind at the time! But there has been a small collection of UHF rigs that, somewhere between the drawing board and the store window, fell into a 'Twilight Zone' of sorts.

You probably never saw them — most likely, never even heard of them. But, at some point, each of these rigs was as alive in the minds of their creators, as was the FM320 to Philips, or the Electrophone to the lads at Standard Communications.

So, what happened?

Well, in the busy days of '79-'80, almost everyone was talking about their own brand of UHF CB. These included Expo, Pye, and others, but unfortunately they never got around to anything more than talking.

President got closer, with their 'Superstar 400', which was an Apollo 400 by any other name. Rumour has it that, after shelling out big bikkies for the development and tooling costs of the 400, Apollo weren't going to let anyone jump on their wagon, and reap the benefits of their labour.

Result — one President that didn't even make it to the polls!

Sometime later, a Sydney company — Cadet Research — got in on the act. Cadet had produced a small run of hightech AM/SSB mobiles some years back. The Cadet UHF shared the same design philosophy (high-tech), and a

few even appeared on-air for testing. But, again, this one never saw light of day.

Dick Smith had two attempts at UHF. The first was the Midland 13-405, which — from appearances — was another 'sister under the skin' to the Apollo.

This one actually showed its face in Dick's 1979-80 catalogue, looking quite attractive. The price — \$349 — but this Midland ended up in the wasteland.

Next up — in early 1982 — was DSE's 'own brand' UHF. This was to be a basic, no-frills rig, priced between \$199-\$250. Numerous prototypes were designed and hand-built by DSE's whiz-kid Gary Crapp, and DOC approval was granted.

The DSE 477 MHz unit was the most spartan of all rigs, including ye olde Sawtron 880. Volume, squelch, rotary dial channel selector (not LED); the repeater facility was an option! Prototypes were housed in FM320 cabinets.

This rig went underground for a while, and nothing more was heard, until it re-emerged as the 'Explorer', a DSE transceiver kit (yep, build it yourself!) for the 70 cm (430 MHz) amateur band. RRP — \$199. It was later joined by the VHF 'Commander' kit (for the 144 MHz ham band), and the family has just grown again with the introduction of a single-band HF mobile rig.

Of course, there were other rigs on UHF that weren't even capable of being DOC approved — again, these were

low production runs (very low), and often one-off 'customized' projects. They were, obviously, 70 cm ham units, swung up to 477 MHz. Their legality was dubious, but the features worth the risk — handhelds with digital keyboard/read-out, 10-channel memory and scanning; mobiles with memory and 25 W output; even a few sideband rigs1

The big surprise, though, is that the FM320 was not the first UHF CB rig available. And I don't mean the modified FM747 commercial rigs that Philips used in researching the band. Give up?

The first UHF CB was the Wagner 'Autophone' UCB-5. These were modified commercial units, 5w and 5 channel, 5 channels? Yep, no misprint there. When DOC first opened up the band, they were still in the process of removing and re-locating numerous business services from the 40 channel allocation.

Thus, for the first few months, DOC decreed that only channels 1-5 and 36-40 could be used. Of course, back in late 1977, it wasn't very crowded up there . . .

So the UCB-5 was operational on channels 36-40, at the top end of the band. Price was around \$425, and — if you're keen — you can even chase up a review of the Willis in CB Action No. 7 (1977).

Of course, it was just months before Philips launched the FM320 — and, as they say, the rest is history.

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Reprinted from one of America's leading trucking magazines.
"AMERICAN TRUCKER" SEPTEMBER '85.

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Passport	9/10	5/10
FOX	8/10	3/10
DEL	8/10	2/10
Whistler	3/10	3/10
Electrolert	3/10	3/10
K40	3/10	3/10
Escort	3/10	3/10
Cobia	3/10	3/10
Little Marvel	2/10	2/10
Arrow	2/10	2/10

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Initial Warning

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K40	2.70 miles
Whistler	2.55 miles
Cobra	2.50 miles
Fox	2.50 miles
Passport	2.35 miles
Escort	2.35 miles
Arrow	2.00 miles
Little Marvel	2.00 miles



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well, because the RD-9 needs interpreting so you understand just what it is saying to you.

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SYDNEY SCENE

By Steve Griffin

After briefly reading through the last newsletter from CREST it is apparent that its 10th birthday is approaching. Many suggestions were made at the last national meeting in Perth regarding the production of memorabilia, obtaining a sponsorship, wider ranging publicity and even inviting the Prime Minister to launch 'National CREST Week', which shall commence on the weekend of the National Conference in Victoria on 6th-7th September, 1986. The approach to the PM will not be made until the format for the celebrations have been decided.

One last thing about CREST. For its 10th birthday it has decided to get a new logo. So, anyone with any talent is invited to submit a logo which they think is suitable. But, keep in mind they don't want something that looks like the old one. They would like a complete new one. All entries will be judged and a suitable prize given to the winner. The closing date is April 30, 1986.

One more thing, Tony. I've been asked to find out about the type of sponsorship you will be looking for, and also any details on how one can advertise in the newsletter. Please send details in time for the next issue. Thanks.

A letter received recently from Mr W.J.L. Barton, Commodore of NSW Squadron of the Australian Volunteer Coast Guard Association, has some great information for those of you lucky enough to own a boat. Part of the info states that the NSW coast monitors have a variety of frequencies that they monitor. The list is a little too long to publish in this column, however, I will try to give a general coverage for NSW. Most monitors work from 7am to sunset, seven days a week with selected frequencies that range from 2182,2524,27MHz and VHF 16,67,73. Quite a few also have 4MHz, normal CB, and not to forget UHF CB. UHF CB is becoming quite popular with marine operators for its clarity and line of sight characteristics across water. If you are not quite sure which radio would suit your boat best, contact your nearest Coast Guard and find out what frequencies it uses. If you don't know who to approach just stick to 27MHz or VHF, or send a stamped envelope to me and I'll send a short form copy of this list to you.

As mentioned in previous issues, little bits of info will be coming from the Department of Communications in Canberra from time to time. The first finally arrived just as I started writing the column for this issue. You must all keep in mind that, until recently, I didn't actually mention what particular area I wished to cover — it was hard enough getting any sort of response, let alone asking for specific details.

A man was convicted in Cairns Magistrates Court on 22 January for making hoax calls and falsifying information, via CB radio. His false statements claimed that a life was in danger and this, in turn, sparked off an all-out effort by emergency services to seek and rescue this fictitious person.

After numerous hoax calls were received — as far back as October last year — DOC and an official from the Queensland Water Police set out to track this station the next time that he attempted to make the same call. Using electronic tracking equipment (the Doppler system) the officials traced the source of the transmission and then entered the premises and found the owner sitting in front of two transceivers, one of which had been modified in such a way as to receive the

marine frequencies.

In court the offender pleaded guilty to two counts of making illegal transmissions. The magistrate hearing the case said: "This is not a school-boy prank and, as an adult, you should have known better. This is a serious offence and there is nothing worse than making false distress calls, hindering people and getting emergency services out under false pretences." The magistrate then fined him on two counts under section 23 of the Radio Communications Act 1984, at \$500 each for being unlicensed, and then two counts under section 65(10) of the Act at \$750 each for falsifying statements regarding lives in danger, plus professional costs of \$240 and \$66. This meant costs of over \$2500 had to be paid for the offence.

This article made the front page of the "Cairns

Post" on 23 January, 1986.

if you ask me, I think this chap got off lightly. After all, under section 23 of the Act, he could have been fined a maximum of \$2000 and under section 65(10) of the Act a maximum of \$10,000 could have been imposed. Wonder who the proverbial guinea pig will be? Hope it's someone on UHF channel 1 repeater here in Sydney.

Just before I give it away for another issue, I would like to say a few words to Rod up there in Queensland.

Rod, I admit I've been silly enough to read your column on a couple of occasions, but, is it really necessary for you to be such a fair dinkum Aussie, using the first word that comes into your mind to describe someone or something. I mean, I'm an Aussie too, but some words don't go past my fingertips, otherwise they might end up on paper. I don't know, maybe I'm boring or strange or something, because the only comments I've ever received in letters is 'keep up the good work', not lots of abuse and sarcasm, or threatening comments from the editor, except the ones about me getting the column in on time!!!

Oh, well, they say you improve with age, or is it too late??

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Queensland Scene

By ROD FEWSTER

WARNING!! The following articles may offend certain emergency monitoring groups and/or individual monitors. If you belong to the ego-tripping, wimping, pimping, "I'm a Monitor...not a CBer" page before you recognize yourself.

* * *

Recently I listened to channel 9 USB while the

skip was running fast and furious.

I haven't heard such a cacophony since the early days of 27 MHz in Australia, when the novelty of interstate or overseas communication had literally thousands of CBers simultaneously screaming their lungs out on the call channel.

No, the racket on 9 wasn't due to a major disaster. Not even to a lot of minor disasters. It was

caused by MONITORS!!

Armed with digital stopwatch and scratch pad I established that, over a thirty minute period, twenty-four minutes and eighteen seconds of airtime were taken up by monitors either big-noting themselves by announcing the fact that they were "on frequency and listening", or reciting parrot-fashion one of the variations of the long-winded garbage about how the channel was "designated by the department of communications for emergency use only, and fines of up to ten million dollars can be imposed, and Blah! Blah! Blah! Yak! Yak! Yak!" (One Victorian fool recited the whole stupid script fourteen times.)

I've been monitoring the emergency channels for years, and I've NEVER announced my arrival on, or departure from the frequency, NEVER announced the fact that I was temporarily leaving the frequency to have a cup of coffee or take a leak or whatever, and NEVER said "good morning-/good afternoon/good night/Merry Christmas/etc" to other monitors. I don't need the ego trip of announcing my presence to all and sundry nor the security blanket of hearing others do likewise in order to monitor effectively. In my opinion the EMERGENCY channel shouldn't be cluttered up with unneccessary pleasantries. (Imagine what 2182 would be like if a thousand or more maritime radio operators decided to exchange greetings or farewells every time one of their fellow operators arrived on or departed from the frequency. Sheer bloody chaos!!).

As for the long-winded spiels aimed at chasing unintentional or deliberate invaders from the emergency channet...they SUCK!! The clots who pull this act don't check to see whether or not the offending parties can even HEAR them before launching into their ridiculous FREQUENCY-PAR-ALYZING babble. What's wrong with calling "breaker", establishing contact, then briefly, politely, and in plain English asking the offenders to

vacate the channel? I've been doing this successfully for years, and I'll never accept that rendering the frequency totally useless by repeatedly transmitting the pre-written garbage which monitoring organizations insist upon is good operating procedure.

To "monitor", in the radio context, is to LIS-TEN, and that, in my opinion, is exactly what Citizens Band Emergency Monitors should do more of, instead of polluting the channel by flapping their lips at every opportunity.

 $\star\star\star$

In the last issue I said that I thought it was OK for monitors to call one another on the 5/35 UHF repeater.

Perhaps I should have explained that I was referring to bona fide members of registered monitoring organizations which are recognized as such

by DOC.

I realize that there are many people who monitor the emergency channels on an independent basis, but calling oneself an "Independent Monitor" does not bestow the right to use the repeater as a call channel.

On 5/35 in Brisbane we have people calling home to let the wife know they're running late, people who are called with monotonous regularity and taken to another channel by their rion-monitor friends, even people using the repeater for commercial purposes . . . all under the guise of independent monitoring. (Unless the guy was about to remove his own appendix and needed boiling water in a hurry I can't for the life of me find any urgency in the recent "Put the kettle on. I'll be home in about two minutes."

This has to stop!! If Radio Inspectors are really serious about maintaining the integrity of emergency repeaters (and I'd like to think they are) then action MUST be taken to prevent the blatant use of these repeaters as a convenient contact channel by people who seem to have found the loophole in the Radio Communications Act that allows them to do so with impunity.

 $\star\star\star$

Speaking of loopholes . . . did you know that deliberate misuse, or jamming, of a designated Emergency Channel, or repeater, is a breach of the terms of your CBRS licence, and that if you don't happen to have a licence you can use an emergency channel or repeater to carry on a conversation, conduct your business communications, play a mouth organ, jam "MAYDAY" calls, or do whatever the hell you feel like doing . . . safe in the knowledge that DOC can't impose any of the severe consequences provided by the RadCom Act for being such a socially irresponsible idiot?

Of course, if you were stupid enough to do any of these things you'd probably be stupid enough to think that DOC doesn't really care a damn about unlicensed operation and stupid enough to think that the old forty-dollar fine for same would still apply if by some strange chance a Radio Inspector did happen to inadvertently catch you in the act.

But you'd be wrong!!

Can't say any more at the moment, but keep your eyes on this column over the next couple of issues and you'll find out there's no truth in the old saying "Barking DOCs never bite."

\star \star \star

There's been a proliferation of new "monitoring" organizations in Brisbane over the past cou-

ple of months.

We've got W.I.M.P.S. (Worldwide Incorporated Monitors Pimping Service), P.A.R.A.S.I.T.E.S. (Politically Affiliated Radio Action Society Investigating The Emergency Service), S.C.U.M.B.A.G.S. (Secret Clandestine United Monitors Backstabbing And Griping Society), C.R.E.E.P.S. (Citizens Radio Exclusive Emergency Pimping Service), and last but not least, Anonymous Radio Snitching Executive, whose initials obviously can't be printed in a family magazine.

On a more serious note . . . I received a number of documents recently which blew the whistle on the planned formation of a clandestine organization, involving executive members of a certain Brisbane emergency monitoring group, purportedly aimed at "cleaning up the airwaves" but in fact just an out-and-out conspiracy to pimp on anyone not toeing the Good Buddy line.

Armed with their trusty tape recorders, these self-styled guardians of public morality planned to skulk around the spectrum collecting evidence against "unscrupulous operators", not to pass on to Brisbane Radio Inspectors (who they consider to be useless pants-seat shiners) but to send directly to . . . wait for it . . . Mr Michael Duffy, Minister for Communications, in Canberra.

If anyone is outraged enough by another operator's on-air behaviour to lodge a complaint about same on an individual basis, fair enough, but the thought of an officially-sanctioned anonymous "tribunal" of wimps and weasels organized specifically to grass on fellow CBers makes me want to chunder!!

If this is what Citizens Band Radio is coming to then they might as well start issuing the favoured few with brown shirts and swastika armbands.

This is Australia, 1986 . . . not Germany, 1936. No DECENT Australian will tolerate the formation of "Hitler Youth" organizations, and there is no place for this sort of slimy activity in MY country!!

* * *

I received a letter recently from Bryce Gordon of Boonooroo, together with a newspaper cutting asking for support and donations to "maintain and improve the coverage" of the 3/33 UHF repeater at Double Island Point.

Bryce and his wife Phyllis try to monitor 3/33 on a 24-hour-a-day basis, and their dedication and assistance during emergencies is well known to Fraser Island residents and visitors.

A bit of a sour note here . . . although 3/33 was initially installed by the Tin Can Bay Lions Club (helped by donations from four-wheel-drive clubs and enthusiasts) as a means of communicating with Fraser Island in times of emergency, it is NOT a designated Emergency Channel, and according to DOC it is available for use by anyone, for any

purpose, at any time.

I've been told that some locals continue to harrass visiting four-wheel-drivers who attempt to use 3/33 for non-emergency communications despite numerous heated arguments 3/33's efficiency, range, and coverage area have been deliberately limited to minimise intrusion by "outsiders", and I can't hear it without the benefit of ducting. I have only ever spoken on 3/33 twice. The first time was to offer assistance during an emergency following a phone call from Brisbane ACREM asking me to do so. The second time was while testing a new antenna installation. I called requesting a report on how I was accessing the repeater, and was rudely told that it was "FOR EMERGENCY USE ONLY, NOT FOR GIVING OUT RADIO CHECKS." Rather than argue the point I sat there and shut up (very unusual for me) and heard four other operators given the push within about ten minutes.

Anyone wishing to make donations towards the Double Island Point "emergency repeater" can send them to lan McKay at 34 Bass Street, Tin Can Bay.

* * *

Early in December two Brisbane operators had their UHF-CB licences suspended for twenty-eight days for "anti-social behaviour".

DOC informed me at that time that action was also being considered against other operators, myself included.

Apparently it is considered "anti-social" to retaliate against wankers and idiots who blurt, button-push, deliberately time-out repeaters, threaten you with physical assault or worse, and continually use the filthiest language imaginable.

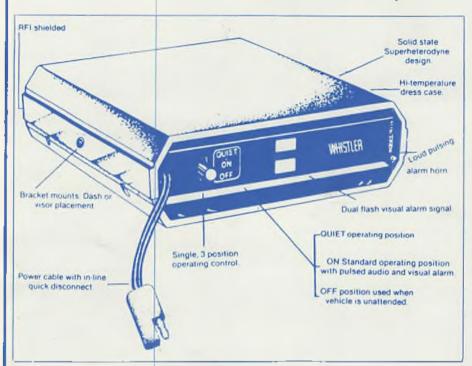
Apparently it's NOT "anti-social" enough to warrant further attention if you refer to someone's wife as an "F** ING NIGGER" and an "F** ING BOONG" repeatedly over a period of several weeks, not even if your voice is heard and identified by several people, including a radio inspector, on the emergency channel!!

To be fair to DOC, I guess that, in the absence of hard evidence, a smart barrister would be able to convince a judge that all the witnesses needed hearing-aids, but one would think that obtaining hard evidence against such filthy scum would have some sort of priority, particularly in view of the fact that a Radio Inspector knows only too well the source of the offending transmissions.

Justice must also be seen to be done!!
Any comments, Mr Duffy?

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REPRINT FROM CB ACTION SEPTEMBER, 1985



NEW WHISTLER!

In Melbourne, it's got to the point where a fella has to pop a couple of tranquillisers before he goes for a drive, just to take care of the nervous tension.

Amphometers, radar glins, unmarked patrol cars, red light cameras, booze buses, "spot" roadworthy checks — you name it, we've got it.

Not that we disagree with any efforts being made to reduce the road toll, but it's got to where you have to travel with one eye on the rear vision mirror, and the other on the speedo. As far as booze is concerned, if you drink and drive, when you're caught, you deserve all you get.

A couple of years ago, Pat Mulligan sent us a Whistler radar detector to try out, and as we reported then, it was the best thing since sliced bread. The only fault we could find with the unit in the city was it's tendency to scare the hell out of you when passing such things as radar operated doors, and burglar alarms. In the country, the unit was so sensitive that some of the cheaper radar

detectors fitted to oncoming vehicles would get the Whistler turning hand springs. This was due to the hash being emitted by the cheaper units, not a fault in the Whistler, so Pat Mulligan who takes any criticism to heart, set about eliminating this problem. Our unit has been back to Pat several times for modification, or replacement with a newer model and while it's gone we feel somewhat more vulnerable. The last time this happened, we borrowed another unit, and when the "new" unit came back, we did a side by side comparison, in both city and country conditions before we returned the borrowed beastle.

In our opinion, the Whistler has always outperformed anything else we have had for test, in both range, and selectivity, but the new unit was even better. There were less false alarms from all sources, including burglar alarms, and radar operated doors, but the sensitivity in the country was still just as good. In one memorable instance, the radar trap was situated a tad over 10 km from the

point where the Whistler was triggered. This was over flat ground, and we saw no other vehicle or building between the two points which could have caused a false alarm! Regular alarm distances of 2 km were commomplace, especially with the NSW pulsed radar in the HF cars.

We wired both units to the battery, as in the past we have found that using the cigarette lighter plug can be a trap. It seems that any drop in voltage to the unit can cause a false alarm, and if you have a poor connection through the lighter plug, this can occur with normal vehicle vibration.

Creative Electronics have gone to a lot of trouble to adapt the current Whistler to meet the conditions encountered in Australia, in respect of both the harsh conditions, and the various radar systems in use throughout the country. Heat and vibration are the biggest enemies of any electronic equipment, especially in trucks, but Creative Electronics are confident that they have got both these problems licked.

You have probably heard the one about the farmer with an axe which was 100 years old, and in perfect condition. The farmer confirmed that apart from five new heads, and six new handles, the axe was original in all respects...

Put Mulligan reckons he can beat that one. A truckie came in to the office to get a quote on repairing a Whistler which had been burnt in a truck fire, and had spent a further period in the weather before being salvaged. The plastic case was burnt away, the circuit board warped, the power lead diodes non-existent and in general terms, the unit was not what you would call "mint condition". The tech hooked the unit into a power supply — and it worked! Builds 'em tough, does Pat...

He has promised us a photo to run with this story, but the deadline is looming fast. However, Pat has kept the unit for his museum — the truckie got a new one in exchange — so If it misses this issue, we will get it in the next.

Now that we've got radar detectors and CBS down to a fine art, we reckon that the next step is to come up with a device that detects speed cameras, and as a bonus tells you when the red light camera is actually "on duty", and not just acting as a bird perch.

Chance would be a fine thing . . .

You should all be aware of the value of the CB and the truckies channel in avoiding some of the pitfalls that confront the normally law abiding citizen who goes a few clicks over the limit. And, we all do at some stage or another, for what seemed like a good reason at the time but didn't go down too well with Mr Plod when you got sprung.

A radar detector can be good value, especially in the country.

27 MHz DX TECHNIQUES

The first in a two part article setting out the techniques which will help the avid DXer pull in those elusive long distance contacts. With the Sunspot cycle at its lowest point, you will need all the help you can get!

BASIC DX THEORY

The term 'DX' is used to describe 'skip' or long-distance communications, it actually has a very mathematical origin. It is an abbreviation, whereby D = distance, and X = the unknown. This is in itself an accurate description of the unpredictable nature of skip. 'DX' also varies in meaning, depending upon which radio band you are referring to.

For example, an Australian record contact on the amateur band of 1296 MHz (23 cm) was set during a contact between two hams one in Adelaide and the other in Albany (WA), almost 2000 km apart. While this is definitely DX at 23 cm, it falls into the category of 'hohum boring' on the lower HF amateur bands (3.5 MHz or 7 MHz).

This is because DX at each part of the radio spectrum relies upon different mechanisms. Amateur radio enthusiasts are in an excellent position to ob-

serve this, because there are over a dozen ham allocations throughout the basic spectrum. This extends from the medium frequency (MF) band, at 300 kHz — 3 MHz, to the top end of the ultra-high frequency (UHF) band (300 — 3000 MHz).

The basic tool of DX is the ionosphere. This is a combination of layers of gas that surround the earth, and they are generally accepted as being from about 50—400 km above the earth's surface. The ionospheric layers occur due to radiation from the sun, and are boosted in strength by solar bursts of high energy, known as 'sunspots'.

How does the ionosphere affect radio waves, such as the average CB signal?

A radio wave may travel in two ways. Via the direct path, along the ground (termed the 'ground wave'), or indirectly. This occurs because part of the signal is radiated towards the sky,

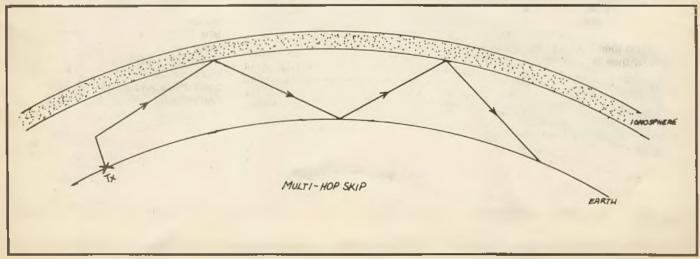
By DAVID FLYNN

and the ionosphere — which may then reflect it towards a distant station. This signal is the 'skywave', which acts hand-in-hand with the ionosphere as the medium for most HF DX.

To digress for a moment — there is an area of some size between the end of the ground wave, and the point of return of the reflected sky wave. This is, in effect, an area which the entire signal has 'skipped over' — hence, creating a 'skip zone', where your signals cannot be heard. This accounts for the lack of medium-distance skip at 27 MHz, and for those hard-to-reach 'shadow areas' near to your own location. Medium-distance skip is possible, through an odd form of ionospheric action termed 'Sporadic E'. More on that in just a moment.

Now, at low frequencies (eg. 1.8 MHz), the ground wave is quite long—250 km, at least. The skywave component of the signal, however, is absorbed by the ionosphere. As the frequency increases, the ground wave is shortened—but, to compensate, skywave reflection from the ionosphere (and thus, 'skip') is more likely. Towards the VHF and UHF bands,

Towards the VHF and UHF bands, the skywave passes through the iono-



sphere itself, continuing into space. This is why VHF/UHF is used for satellites and space craft communications. These signals may be carried over long distances under the influence of the 'troposphere', a region much nearer the earth's surface than the ionosphere, and more directly related to our weather patterns.

The ionosphere itself is divided into three very distinct layers. These are labelled the D, E and F-layers. The F-layer itself can be further split into the F1 and F2 regions.

The D-layer is closest to the earth, at 50-90 km in height. It absorbs most signals from MF to HF, but is only in existence during the day. At night without the sun, its energy source disappears. The D-layer weakens and dissolves. This allows MF signals to travel further — the reasons why broadcast-band AM stations can be heard at such longer distances at night than at day. The D-layers has little real effect on 27 MHz (and bugger-all at 477 MHz!).

The E-layer resides about 100 km above the earth. Under normal conditions, it too has little bearing at 27 MHz, and — like the D-layer — begins to deteriorate soon after sunset.

However, all is not a simple as it first appears. At certain times, patches of very dense ionisation appears in the E-layer, much stronger than surrounding gasses. They are largely unpredictable, and may last for minutes or hours. These patches move through the E-layer like clouds, which makes them even less reliable. This phenomenon is called

'Sporadic-E'.

Sporadic-E can cause skip when 27 MHz skywaves are reflected from these 'clouds'. But don't count on Eskip contacts from long — the cloud may move, or dissolve altogether, before you even have time to exchange QSL addresses!

This form of skip can affect frequencies much higher than you may realise. The low portion of the VHF band — including TV ch. 0, and the 6 metre amateur band — can find that Sporadic-E causes skip of up to 2000 kml It is this effect that leads to interference between SBS-TV (ch. 0, Sydney) and TVQ Brisbane (also on ch. 0).

Sporadic-E is most likely to occur during summer, around daylight hours (early morning to mid-afternoon). But remember, it is unpredictable. The trick is to be in the right place at the right time and be prepared.

Finally, comes the F-layers. During the night, this exists as one layer. At daytime it divides into F1 (175 — 250 km above earth), and F2 (250 — 400 km). It is the F2-layer that encourages 27 MHz DX and in fact reflects signals from across most of the HF band.

The F1-layer is a little more troublesome, as it absorbs these signals. Being closer to earth, and lower than the F2, it has 'two bites of the cherry'— sapping energy from the signal on the way up to the F2, and again from the reflect signal as it returns to earth. At evening, until sunrise, the F2 merges with the F1, increasing your chance for 11 metre DX.

THE SKIP CYCLE

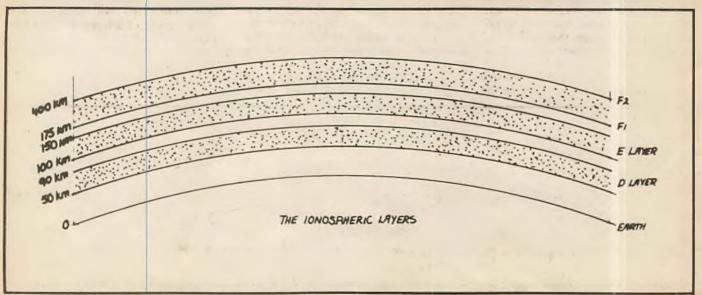
As previously mentioned, the energy source of the ionosphere is the sun, whose radiation determines the density of the layers, and their capacity to reflect signals. Sunspots were also shown as a boost for density.

Sunspots are massive in size, from being as large as NSW, to over 10 times the diameter of earth! The greater number (and larger size) of sunspots, the larger dose of radiation to the ionosphere, and the better your chance for adding a few DX contacts to your collection.

As with all else in nature, sunspots follow general cycles. This has been measured at approximately 11 years per cycle, during which time there occurs a 'low' (very few sunspots) and a 'high'. A strong case also exists for the theory of a 22-year cycle.

Of course, there are other cycles, much larger. It may well be that our 11-year fluctuation is only a ripple in a cycle of a thousand years. The first recorded observation of sunspots was in the middle ages, as Galileo peered through the very first telescope of our era. However, truly useful records and tables of sunspot activity only go back 300 years, with our modern technology being a relatively recent dvelopment. The 11-year cycle is, for our purposes, the most immediate and relevant to us.

So perhaps the name 'skip cycle' is a touch inaccurate, as the correct title of 'Sunspot Cycle' should be applied. Each cycle is now studied by geophysicists, and given an identifying number. The most recent cycle (which peaked around 1980) is no. 21.



These cycles are far from being a perfectly smooth affair. Exceptional highs can develop in the very quietest times, and the peaks and troughs of successive cycles vary greatly in strength and duration.

The next cycle (no. 22) is expected to peak around the early 1990s, although it is difficult to predict how 'big' a peak it will be. Certainly during the highest points of cycle 21 any clown could work DX (and a lot of 'emdidl).

Now, at the end of 1985, we were pretty near to the bottom of the current cycle. This doesn't mean that DX isn't there — only that it's harder to find, takes more time and expertise to do so. This is the domain of the dedicated DXer, the real enthusiast. And it all starts with the equipment.

THE RIG

The CB radio is the heart of the system — the biggest antenna and most elaborate accessories won't make anywhere near the difference to your DX, that a well tuned rig does. Remember that the radio is actually a transceiver — a combined transmitter and receiver. So let's consider these separately.

The transmitted signal carries two prime components — power and modulation. Each must perform to its possible best (legal) limit. They must allow you to be heard, through all the noise that separates yourself and that sought-after DX station. And it is here that a good rig tune-up by a qualified and reputable technician is recommended.

It is a shame that many people would rather hand their precious CB over to the local 'screwdriver expert', the 'backyarder' or the 'know-all'. Maybe not all the best technicians have their own CB store, but they've got more tools of trade than the backyarder's multimeter and set of screwdrivers.

No such person can really improve your rig. At best, they might make the

S-meter go higher on transmit or receive, which doesn't mean a thing, in terms of the performance of the radio. Tweaking up the S-meter sensitivity pot is a deceptive job that takes 5 seconds.

If your friend is serious (which makes you unlucky), the results can range from a rig that's severely out of tune (over-modulation, more splatter and an increased chance of TVI, to say the least) to a total wreck that can cost big bikkies (maybe near the cost of the rig itself) to repair. Many qualified technicians spend more time repairing the handywork of 'the bloke down the road' than on routine work!

Now, a few words on those two elements of the transmitted signal.

The output power of a CB radio is legally limited to 4 watts AM and 12 watts SSB. Most rigs can stretch bevond this - it's your decision. But to make a noticeable difference in signal strength, the output power must be doubled. Even so, the reading from a power meter can be misleading, as such equipment indicates total power - the fundamental (on-channel) signal, harmonics, spurious emissions, and any other crap, all added together. And it's the fundamental that counts - an 8 W AM signal may translate into 4 W on channel, and 4 W of TVI-causing barmonics.

Modulation is also a tricky topic. Again, most rigs have room for improvement in this category. Modulation gives clarity and 'speech power' to a signal and clear modulation beats a few extra watts any day. And be aware that a power mike isn't always the solution—the money you spend on the microphone could quite possibly be better used on a complete rig tune-up (which will cover both transmit and recieve).

To the 'other half' of the radio — the receiver. This should also be tuned for maximum performance.

It needs to be 'sensitive' to a weak signal. 'Selective' for the chosen chan-

nel (ignoring signals on other nearby frequencies). Immunity to electrical noise (such as vehicle engines) is also a desirable trait. If you've ever been camped atop a mountain lookout, and had a weak 'CQ DX' call smothered by the 'putt-putt-putt' of a VW Beetle driving on the road nearby — well, you'll appreciate what I mean!

ANTENNA SYSTEMS

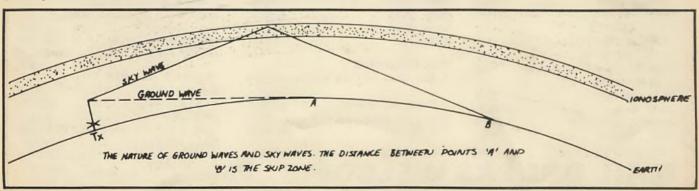
After the rig, the most important element in the station - especially for the DXer is the antenna system. By this, I mean both aerial and co-axial cable. An exhaustive topic, perhaps, but a few pointers won't go astray. If it wets your appetite, there have been plenty of books written on the subject — and there are 10 times as many fellow DXers eager to discuss 'the stick' until the wee hours of any morning.

There are two points on which all DXers would agree. Firstly, that the best and most effective antenna system is a combination of two aerials. One, on omni-directional (eg ¼ wave, ¼ wave); and then a directional stick (beam or quad).

Secondly, antennae should be as high as possible, and at least one wavelenth (11 metres in this instance) above the ground. Use good quality coax (preferably the thicker RG-8, RG-213 or similar), proper fittings (well-connected), and — of course — keep the SWR well down. You don't have much power to carry your signal almost 500 km to the F-layer and back again — so don't allow any loss that can be prevented.

Beyond these basic precepts, opinion reigns supreme.

Next issue we will look at the "safe" topic of antennas. See you then.



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3II	ue W	ounits		\$7.50	and 2	UC. CC

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10 metres RG58 plus plugs		\$18.00
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		3 foot,\$69.50
MARINE RADIOS		
Sawtron 555		\$320.00
Uniden Sea Wasp		\$175.00
G.M.E. GX281		\$181.50
Handic Profine 910 (was \$30	la)	\$235,00
Ranger 600 Marine		\$157
Uniden Sea Dolphin		\$139.50
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NO.		Here

CLUB PROFILE

Common to all major Australian cities are the 'growing pains' of UHF CB. A combination of factors create these pressures — increased popularity of the band, the spread of repeaters, use of 477 MHz by small (and not so small) businesses, and farming communities.

It was in this atmosphere that the UHF Association of Western Australia was conceived. And, like the service itself, the association has grown strongly as the years pass.

The beginnings of the UHFAWA were to prove indicative of its development into an open and friendly group, whose very base for existence was 'on air', amongst the enthusiasts themselves.

Firstly, a small number of UHFers discussed amongst themselves the idea of forming a UHF club. With a few foundations set, an on-air discussion followed, on Perth's ch. 1/31 repeater.

The response was positive — so much so, that a further gathering was called. The subsequent barbecuemeeting was held in September 1983, in Kings Park, Perth. 60 local operators attended this get-together, which became the first official meeting of the UHFAWA.

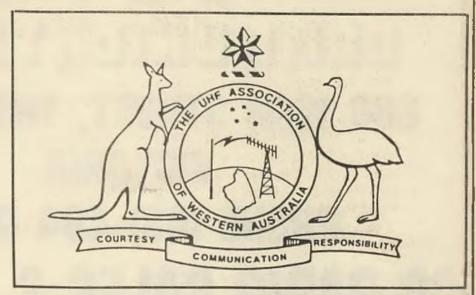
The association, even in its first days, had its course neatly marked, realising that Perth had similar needs to those which other UHF groups had met.

Only months earlier, explains foundation member Don Lancaster (WAC-705), Perth's first repeater had begun operation. This was the Philips-sponsored 1/31, located at Wanneroo, 26 km to the immediate north of Perth.

Repeating the pattern of other, larger cities, UHF CB underwent a miniature 'boom' period. All of a sudden, there were more operators than anyone could have imagined, hobbyist and business-user alike. As 1/31 gave a new reliability and range to UHF CB in Parth, so even more commercial operators took to the band.

The potential for friction was obvious, and much of it stemmed from disparate operating procedures.

'The UHFAWA', Don explains, came about to get the UHF service off to the best possible start in West Australia. Not a policing body, but just a friendly group with the best aims in mind.'



The UHFAWA brought together users in a co-operative manner. The example was set, and followed, and — as in other cities — use of legal DOC callsigns on 477 MHz became the norm.

NEWS BROADCASTS

With keen and open-minded members, the first task of the UHFAWA was fulfilled. The association then began to establish itself. This was best achieved through their weekly news broadcast and callback session, which has now become a firm fixture in the Perth UHF scene.

It is held every Wednesday from 8.00-8.30 pm, on the Perth's ch. 3/33 repeater.

A weekly broadcast on a city repeater? The UHFAWA have, in fact, obtained DOC permission for this, and there is surprisingly little jamming, deliberate or otherwise. There are also frequent pauses for station identification and breakers.

The broadcast station uses the association's official DOC callsign of WCB-666, granted in November 1984. Like other groups, the broadcast provides local enthusiasts with a combination of relevant news and information.

It is said that conversations around the band wind up very quickly on Wednesday evenings, as the broadcast time draws near; and, for the next few days, any topical item raised that night will be discussed at length across the band. But the broadcast is even more than this. It is the most regular link between members of the association. You see, it is most typical of the character of the UHFAWA that it doesn't hold monthly general meetings.

'Our membership is pretty widespread' says Graham 'Ike' Ikin, association secretary. 'Of about 80 members, almost a third live in the country. The UHFAWA's committee meets every month, but general meetings are only held when needed.'

So who calls these meetings? 'The members!', lke replies. 'The broadcast is our most accurate gauge of what the UHF fraternity want, how they feel about any aspect of the service at any given time. Through this, they give us ideas and direction. There's also 'UHF News', our quarterly newsletter, and of course country members have an equal say in everything.'

'But if the members feel the need for a general meeting at any stage, then we meet — as simple as that.'

A high-level association without regular meetings? It may be unorthodox, but — for the UHFAWA — it works, and works well.

COMMUNITY

The association's major community activity is their involvement in Perth's Rotary Cyclathon.

This annual charity event, open to the public raises substantial funds for

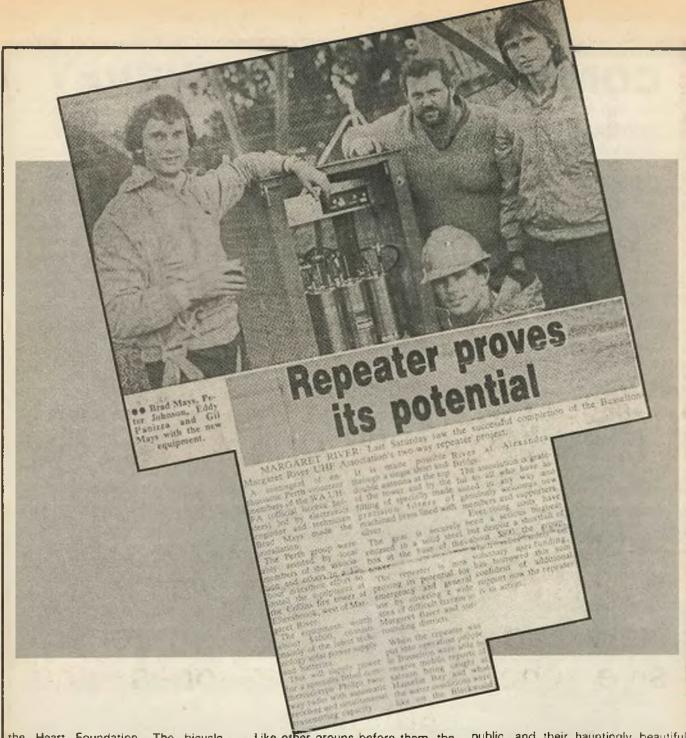
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the Heart Foundation. The bicycle course runs up to 12 km, winding along the Swan River, and is held each February.

Seeking advice and possible assistance in providing two-way radio for the cyclathon, Rotary contacted the Perth DOC offices, who referred the organisers to the UHFAWA — and that is the sign of a good working relationship!

Communications are of a relatively simple nature, using around a dozen operators (both portable and mobile) through a base 'control' station, all on UHF CB.

Like other groups before them, the UHFAWA has found the many benefits of lending their radio skills towards community events, and is looking forward to more such activities in the future.

MARGARET RIVER REPEATER

Without a doubt, the largest project undertaken by the UHFAWA to date has been the Margaret River ch. 6/36 repeater.

Margaret River lies at the southwest tip of WA, amidst an area riddled by over 300 coastal limestone caves. Many of these have been opened to the public, and their hauntingly beautiful formations have boosted the tourist appeal of this temperate region.

The Margaret River-Busselton repeater (MGR-06) was initiated by the local volunteer sea rescue roganisations, who were well into the project—and had received many donations toward it—when, in 1984, they suddenly abandoned the repeater and returned all donations.

This was one of those occasions on which 'the need' to hold a general meeting of the UHFAWA was quick to emerge. The proposal was made, by members and non-members alike, that the association move to take over the

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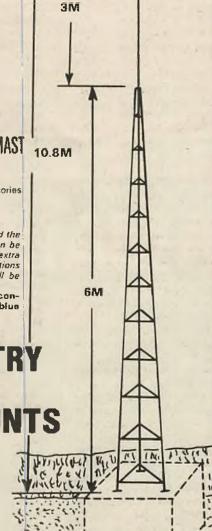
Suggested block of con-

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Back to You

MR BLACK'S BACK

(i) I overheard on 27 MHz today that there is talk of increasing the number of 27 MHz channels to 80. Is this merely an offer by the Minister for Communications or the result of negotiations between the Department and some representative body in the CBRS? One comment made by the unidentified communicators was the need to increase the number of call channels to cope with the 40 extra channels. I must admit that the idea of call channels does not appeal to me. They are severe bottlenecks whenever "skip is running" and are not needed at all. Someone will ask: "How are you going to make initial contacts?" The obvious answer is to devise a system whereby "CQ" can be called on ANY vacant channel, thereby by-passing the present awkward system, which merely causes delays and congestion on the call channels. Furthermore, it is evident that many users use the call channels as communication channels and debar use by those wanting to make contacts. Channel 11 in particular is virtually abandoned to the uninformed young -- and older - people, who have never been made aware of how to use a call channel! We find whistlers, music-players, foulmouths, sex maniacs and under-age children abusing the call channel and nobody seems to care two hoots at this denigration of CB operation. Also, it is obvious that most users never listenout before making their calls - just barge in and hope to override any others who may be on the call frequencies.

(ii) Having been away from CB for a long period, I should like to know if the NCRA (National Citizens Radio Association) still exists or has faded away. If the latter, what organisations actually engage in dialogue with the Department of Communications?

(iii) Who devised the ridiculous "QRA QRZ THE BREAKER"? These "Q" signals are used for morse code contacts and there appears to be no good reason to replace standard English merely for the sake of introducing an extension of "CB jargon". "QRA" means "The name of my station is

" and the official callsign would be inserted in the space. "QRZ" means 'You are being called by . . ." The real meaning of "QRA QRZ THE BREAKER" would then ' The real meaning mean: "The name of my station is You are being called by the breaker". What a heap of rubbish! When a breaker does appear during an onair contact, what do we want to know about him (or her)? We want his callsign, his name, his signal report and possibly his location - all of which can be given in one short transmission. "My callsign is NDH088, name is Joe, located in Gundagai. Your signals are loud and clear. Over".

(iv) I find the breaking into existing conversations an undesirable feature of CB. If an operator is listening round the channels and overhears an interesting dialogue to which he (or she) could add some useful information, there is a reasonable cause for a "break-in". However, it is quite annoying to be conducting a

technical conversation --say about aerials - and finding some persistent breaker interrupting merely to get a signal report or OOZE ON CHANNEL?" Some breakers become very impatient and seem to have the right to come in on an existing conversation by some "Divine Right of Breakers"! Under different conversational circumstances one would resent and ignore any unknown person who butted in. But breakers expect to be welcomed like longlost brothers (or sisters!).

(v) I have been told that in German CB the country is divided into districts with emphasis on CB club activities. The Clubs then assume the functions of training members in correct procedures - including use government-issued callsigns. When CB started here in Australia a suggestion was submitted that CBers should belong to clubs, but this apparently did not suit the Big Business interests and was never implemented. The CB Club lists, which were a feature of "CB AC-TION" each month, seem to have faded down. Australian CBers are not, in general, club-minded and prefer to "do their own thing". There still persists a great fear of revealing the identities of 27 MHz users. Revealing locations is avoided with great diligence. One wonders what proportion of stations heard are, in fact, CBRS licensees and how many are pirates on our CB channels - freeloaders! There is a lot wrong with Australian CB: there is much that can be done to bring the CB service into a really acceptable part of Australian life and community service, BUT,

WHO IS GOING TO DO IT? The Department couldn't care less about how the CB channels are used. The constantly varying licensing procedures indicate a great deal of uncertainty and ineptitude in the Departmental bureaucrats responsible for managing our service. One wonders what influences exist to prevent CB from degenerating further into chaos and disorder.

> R. Black (NDH-088) WAGGA WAGGA.

Welcome back Mr Black. Thought you'd given us away!

With regard to 27 MHz going to 80 channels, someone is pulling your leg. The spectrum on either side of both the 27 MHz band, and the UHF band is packed tighter than Dolly Parton's tee shirt - UHF in particular.

We regeret to confirm that the NCRA has, as you suggested, faded away. As far as we know, the only people who maintain any sort of dialogue with DOC are the larger CB clubs — Omega, in Victoria, the Western Radio Club in Svdney, the WA UHFA in Western Australia, and the UHF Opera-tors Association in South Australia. In addition, the various emergency groups also have excellent liaison with DOC.

Your comments on the use of the Q code are our sentiments exactly. It is fairly obvious that the majority of operators who indulge in this unnecessary use of the Q code have very little idea of what the various groups mean, and are putting on more side than a rat with a gold tooth!

We also agree that there is a right and a

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Back to You

wrong way to break into a conversation, but we also understand that a breaker looking for a signal report is more likely to break into an intelligent technical conversation, simply because there is a better chance that he will get a useable reply.

Finally, we can't argue with most of the statements contained in (v) of your letter. It wouldn't be fair to saddle "Big Business" with the blame for CBers being deterred from forming useful clubs. You say further on that, in general, Australian CBers are not club minded, preferring to "do their own thing". Just another example of typical Aussie independence.

There is no doubt that there are a multitude of unlicensed operators freeloading on the bands, but now that DOC has an Act that can be enforced, they are much more enthusiastic about their jobs --- as can be evidenced by the ever-growing lists of pirates and trouble makers apprehended by the Ris. There used to be a time when you had no hope of getting the Radio Branch out of their cosy doonas at 1am, but not so now. You give them a lead, and if it's solid enough, they'll be on it quicker than a blowle on a warm prawn.

There were so many holes in the old W&T Act that you could walk through it with an armful of chairs, and it must have been bloody annoying to know that although the RIs had "the goods" on people operating outside the law, the chances of getting a conviction were mini-

mal, and it's hard to get enthusiastic under those conditions. It won't happen overnight, but we see a real improvement for legitimate operators in the wind.

SCRAMBLERS

Enclosed is a copy of a letter which has been sent to the Minister of Communications.

Could we ask you to support this letter with one of your own, perhaps, if you feel the same way as we do.

it would be interesting to know of you reaction to the letter to the Minister in any regard. To this end, we would be pleased to hear from you even if you do not wish to write in support or if Policy precludes that.

Les Paget, Hon. Secretary, Omega Radio Club

Sir, "On behalf of the members of this Club, I am writing to express our complete abhorrence of an item now in the marketplace called a "Scrambler".

It is a device which, when connected in the microphone circuit and with an external loud-speaker attached, has the effect of making the audible signal indistinguishable when heard without another device to unscramble the audio. Apparently it does not affect the Radio Frequency carrier of either HF or UHF frequencies.

We believe that its use anywhere in the Citizen's Band Radio Service is completely in opposition to the underlying principle of being able to communicate with anyone on CBRS.

Its use would make it more difficult to monitor from the Department's point of view inasmuch as callsigns (if used) would be unrecognisable and normally unacceptable

traffic could occur; e.g. any type of illegal traffic in betting, the disposition of illegal drugs or prostitution.

The general use of this device would be in direct, opposition to any emergency communications and could be used in a vandalous manner to disrupt them, the thoroughly selfish use of this device on repeater installations could amount to them being shut-down.

We believe that the distribution of this device should be restricted to use only by authorised Government bodies on frequencies other than those of the CBRS and that every attempt be made to make it unavailable to any distributor of CBRS equipment.

We are reasonably sure that we would have the backing of other CBRS organisations and will be seeking their support in the meantime.

A copy of this letter is being sent to those listed above because we know they listen to or are involved with at least the Emergency channel and are as concerned as we are with regard to the above device."

We must agree that using scramblers on the CBRS is not to be desired. We were under the impression that their use was illegal, as we stated in "Log Book" last issue, but have since discovered that our information was incorrect. Only recently have we had a chance to hear a scrambler in use, and the resultant audio sounded like Ivan The Terrible with a mouth full of marbles.

One of our biggest concerns is that immediately an operator using a scrambler comes on air, the blasts of protest, and subsequent pandemonium will effectively render that particular

channel useless for hours. Obviously, it will occur on repeaters, and the result is fairly predictable.

We feel that if the operator of such a device has a need for his/her communications to remain secret, the CBRS is the last communicating medium considered which should be considered, and in that light we support your plea to DOC for the matter to be given urgent and careful consideration.

In the interim, we can only hope that the initial cost of the scrambler (over \$300 per unit for the one we saw) will price them out of the Chers reach. Of course, the dead set trouble maker will still find some way of raising the necessary boodle, but in this instance, he has to find a mate to talk to, also with a scrambler, otherwise it's as useless a chocolate kettle . . .

DOWN SOUTH

My respects, a bit late, since I didn't pick up a copy of the September issue until today, to Rob Adams for his Down South column. When he gets to come up on UHF, he'll find a collection of people who 'gave up' 27 MHz (ves. this Amateur still thinks of it as 11m) when it was still about 20 channels of a 23 channel set wide, before the Aussie 18 ch. allocation came up. Yes, Rob, a number of us are on the top side of 20 when the age-counter says 00 instead of 30!

Or, in current terms, with a handheld reviewed in this issue which shows 00 instead of 40, our channel display in many cases would show over 20

My respects indeed to Don Stewart and to each



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- Easily assembled and tuned . . . all mounting hardware supplied if you're not using an SPR-27 then you're probably not getting the best out of the rest of your CB equipment!!
- ★ There are plenty of "three-quarter-wave verticals" around, but there is only one SPR-27!! Ask for it by name, and don't settle for a "tookalike" antenna!
- RATED "TEN-OUT-OF-TEN" BY CB ACTION!! (Test Report in December, 1983 issue)

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- * Test report In CB Action June 1984 issue

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"STARDUSTER-5" (5-Element) \$129

SSB ENGINEERING .. VOLUME 1 covers crystal switching methods, synthesized rigs, and early PLL rigs. The mountain of slide information makes this book a classic. Price \$12.50 including postage.

THE CB PLL DATA BOOK is the CB modifier's Bible. This all-new International Edition covers over fifty specific phase-locked loop ICs, with manufacturer's cross-references. Price \$10 including postage.

THE LINEAR AMPLIFIER HANDBOOK has thirteen complete transistor amplifier plans, HF, VHF, and UHF, from 15 watts to 1000 watts. Full parts lists, component layouts, and full-scale printed circuit negatives take the mystery out of building your own CB or ham linear. \$5 including postage

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Back to You

and every one involved in the events of MAY DAY LOG. From comments heard on air, not all operators are aware that in Emergency ANY Channel is an Emergency Channel, and that, on request by any station using it for emergency traffic, it is to be left clear for the duration of the emergency.

lan Crompton, Richmond, SA

AUTHOR, AUTHOR!

Thanks for printing my story in the December issue, and I thought that the illustration was very appropriate. Good work.

But, why credit the story as "Anonymous"? I demand the privilege of seeing my name "up in lights", as you put it! If I send any more stories in, I sincerely hope that my rights will be accorded to me.

Hope CBA goes monthly, it sounds like a good idea. It would be especially nice if you could cover other topics such as amateur radio, scanning and such. Nothing very deep of course, but the added variety would be a nice touch.

Rod McLean
Honestly Rod,
you'll be the death of
the editor!

Firstly, the reason why you didn't get a credit on your piece was due to the fact that you didn't put your name on it anywhere, nor did you enclose a letter with an address. 10/4?

Now you write in high dudgeon complaining about the lack of courtesy, and the only way the editor can reply is through this column.

Why?

You may well ask. You signed the letter this time, but once again, you didn't put an address on same. C'mon lad — lift your game!

For those of you who haven't got a clue as to what we are on about, and just to set the record straight — ROD McLEAN WROTE THE SHORT STORY ENTITLED "WORDS" IN OUR DECEMBER ISSUE.

There you go Rod
— there's your credit
— in upper case type
vet

CHANGE OF ADDRESS

We would like to point out that the Channel 5 Repeater for Brisbane is now located at Cloverlea on Mt. Glorious just west of Brisbane.

The owners of the Cloverlea Garden Centre have allowed us to use the site free of charge as a goodwill gesture to the safety of the general public.

Cloverlea is situated about 25km west of Brisbane. To get to the top of Mt. Glorious you can either go via Mt. Nebo or take the road through the Samford Valley which is the better way. Take the Mt. Glorious turn off at Samford and continue through about 19km to the top of Mt. Glorious where you come to Cloverlea Garden Centre and Restaurant.

Also at the centre there is a kiddies farm with rabbits and other animals on show in cages. Take a bush walk to Clover Falls and have a picnic. The Garden Centre also has BBQ facilities available for picnics as well. While up there visit the gift shop and buy a souvenir to take

Ken Anderson CHAIRMAN ACRM QLD

Seeing that the Cloverlea Garden Centre has been kind enough to donate the site for the repeater, the least we can do is give them a free plug!

SOUTHERN CROSS RADIO GROUP

This is a Victorian based group, and no special entry requirements are needed. Although we mainly use 27 MHz equipment, we also welcome other users — marine, amateur, and UHF

Our activities involve weekend social gatherings, car rallies, DX meets etcetera. We attempt to assist in emergencies, but do not interfere with the various emergency groups, such as CREST.

We also take part in local charity fund raising ventures.

QSL cards, membership cards, and a three monthly newsletter are available to members, which is covered by the annual fee of \$7. A special club callsign is allocated upon payment of the annual fee.

Enquiries can be directed to PO Box 365, Leongatha VIC 3953.

Southern Cross Radio 01 Trevor Sounds good

Trev-best of luck. ACREM SAYS THANKS

Just a few lines to let you know that our Association meets on the THIRD Wednesday of each month at TOC"H", College Road, Spring Hill, Brisbane.

People wishing to join ACREM do have to undergo full training, which will enable them to take a call without any problems.

From time to time we have Treasure Hunts (car rallies) and also have the occasional game of cricket against the Brisbane Voluntary Emergency Monitors. We also have

BBOs and picnics which help pay the expenses for the channel 5 repeater we installed.

We have three life members in our association and they are: Mr Ralph Hill, who owns and operates Ralph Hill Electronics in Nambour on the Sunshine Coast of Queensland. Next is Mr. Rod Fewster who everyone knows from the Magazine CB ACTION. Rod owns and operates South Pacific Radio at Kallangur. And the third person is Mr Ken Andersen who is a transport driver with Linfox Transport in Brisbane. The reason that we have these people as life members is because of all the work they have put into the association to make it the success it is today. Sure we have the people who like to knock the association and the ones who have personality clashes and we lost a lot of good monitors, but you can't cry over spilt milk. You keep going and we are getting more new members who are very good monitors and members.

ACREM works along with all other emergency organisations and assists where we can.

We also have a few Honorary Members, Mr Brian Robinson from Antenna Agencies, Mr. Bernie Bischa from Olbis Industries and Mr Kevin Sullivan who works from the Big Queenslander "XXXX". And not forgetting Mr Gil Bertram who owns Custom Scientific Electronics at South Brisbane. To those people we are pleased to say "Thank You" too, for the assistance that they have given the ACREM Association

Back to You

here in Queensland.
Terry Saal
SECRETARY
ACREM QLD.

Looks as though everybody wants to jump on the 'free plug' bandwagon this issue! Not to worry, it's good to see that you appreciate the assistance given by the trade. I notice that your list includes a couple of our well known advertisers. Maybe, if our Queensland sales people move it and groove it, we can get a full house...

We need the money.

THE PIONEER CLUB

Please find attached relevant information for the CB Action Club Register.

The Pioneer Club was previously registered in the old CB Action many years ago. We have changed our name slightly over the years, but never our A/D as we are a local group of 90 adult members and their children and we meet socially and have inserted the word "social" to our old title.

We are registered with the NSW State Government as a non-profit organization and what money we do raise each year, goes back to the members in the form of outings and Christmas parties for their enjoyment.

We have been operating as a CB Radio Club successfully since 1978 and a lot of our original members are still with us and still DXing all over Australia.

I read your magazine from cover to cover and still find some very useful hints.

Hoping this information is of use for your records.

Pioneer 1 — Bob

President

Nice to see that a lot of the "oldies" are still alive and well. The club register is starting to really take off now, and although it's a pain in the butt keeping it up to date every issue, it's good to see that CB is maintaining its momentum.

CB CHARITY

Our club, the Eureka Base CB Radio Club when it was formed some seven years ago, decided that we would like to support a charity. The charity we chose was "Friends of The Brain Injured Children."

The Friends of The Brain Injured Children is a non-government backed group, and as a result, all their finance has to be raised by families and friends. It costs at least \$1700 per year per child on the program conceived by Dr Ian Hunter.

We conduct regular raffles, especially on Mother's Day, Father's Day, and at Xmas. We have a small branch in New South Wales, but our South Australian branch has nearly 300 members, and it gives us a really great feeling to be able to help people not as fortunate as ourselves. I hope that you can print something in the magazine for us, as we are just ordinary folk.

> Albert Bergan, Secretary, Eureka Base CB Radio Club PO Box 633, Elizabeth, SA. 5112

ANNIVERSARY DINNER

I would appreciate the opportunity of informing your readers of a landmark in CREST's history which will occur later this year.

I refer, of course, to the end of our tenth year of operations. We are, I believe, justifiably proud to have served the public of Australia for 10 years, much of that time against considerable odds.

Not wishing to allow this memorable occasion to pass unheralded, we have organized a commemorative dinner to celebrate our first decade. Many of our members, both present and past, and a number of distinguished guests will be attending the dinner which will be held during our National Conference in Victoria in September.

Any of your readers who have been associated with CREST in some way during the last 10 years, who may wish to attend this dinner are welcome to contact the National Secretary, CREST Australia Inc., PO Box 972, DUBBO NSW 2830, for further information.

Steve Harding, National Director

CRRA WOUND UP

Now that the repeaters are a going concern the CRRA has decided that it has done its job and it has decided to wind up the Association.

It has been my pleasure to have been the Secretary since the Association was first formed, and I would like to thank everyone who I have worked with, the Offices and Committee of the CRRA, the friends I have made at the DOC, and the helpful

people at Philips, and last but not least, our members who have supported us.

In winding up the CRRA the most appropriate body or charity to pass on our surplus funds to should be one which serves Australia as a whole, therefore our Association has donated our funds to the Royal Flying Doctor Service, who, I am sure, you will agree, certainly serves our vast continent. The amount involved was \$1491.23.

May I take this opportunity to thank all those who supported the CRRA throughout it's relatively short life and wish you well in the future.

> J. Graham, Secretary/Treasurer C.R.R.A.

MORE CHANNELS?

With regard to the proposed extra forty channels for UHF Citizens Band use, access to AMFAR micro film shows an Australia wide reserved spectrum.

The January 1983 edition of CB Action shows exactly the same allocation as AMFAR.

The interesting part is that the authorised date of the extra channels is September 29, 1981 Auth. 4/8A/167.

Have you any further comment on this topic?

Ron Gray VBW 624 President, Central Highlands Repeater Assoc.

According to our information, the chances of us getting a 40 channel expansion for UHF is nil. The spectrum both above and below our band is chocka!

-New Gear=

ANTENNA NOISE BRIDGE

Most antenna noise bridges on the market today provide only a limited reactance measurement range up to 300 or 400 ohms. Some others don't even give their user individual inductive and capacitive reactance readings, only a combined total reactance.

The MJF Enterprises Model MFJ-202B provides the ability to measure both individual inductive and capacitive reactance into the thousands of ohms. It can also measure resistance over a similar range.

MFJ Enterprises have achieved these wide performance parameters by incorporating a switchable range expander in the MFJ-202B. With the range expander switched in, measurements of resistance up to 3800 ohms, and both inductive or capacitive reactance up to 1900 ohms may be made. Frequency range extends from 1 MHz to 100 MHz.

Each MFJ-202B Noise Bridge is individually calibrated and provided with a calibration chart prior to leaving the factory.

A comprehensive manual is also supplied with this noise bridge cov-



ering subjects as 'Finding Antenna Resonant Frequency', 'To cut a half wave dipole to resonance', 'Tuned Circuit Adjustment', 'Measurement of RF Amplifier Impedances', 'RF transformers and Baluns' as well as 'Capacitance and Inductance measurements'.

The MFJ-202B simply connects in series with the receiver or trans-

ceiver antenna line and the circuit under measurement. Power source for the bridge is an internal 9 volt bettery.

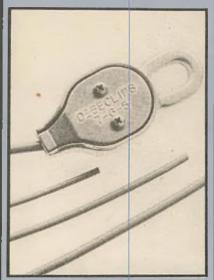
Priced at \$193 plus \$7 P&P the MFJ-202B is available from GFS Electronic Imports, 17 McKeon Road, Mitcham, Victoria, 3132. Phone (03) 873 3777, Telex: 38053 GFS.



DC TO DC CONVERTORS

When it is necessary to convert 20 to 30 volts DC to 13.8 volts DC, consider the range of DC to DC convertors available from Standard Communications. Four models are available: VR1-3, 3 amp continuous, 6 amp peak; VR-2, 5 amp continuous, 7.5 amp peak; VR3-10, 10 amp continuous, 15 amp peak; VR4-20 20 amp continuous, 30 amp peak. All units have output current limiting, voltage spike and surge protection, output over voltage protection (16V max.), as well as in-line fusing. These units are particularly useful on 24V trucks and boats to power transceivers operating at 13.8 volts DC. They are priced at \$49.75, \$64.13, \$92.70 and \$137.25 (RRP) respectively. Contact Standard Communications, or your nearest Electrophone dealer for further information.

New Gear



DEBEGLASS 6mm

GFS Electronic Imports of Mitcham, Victoria, have announced that they now have 6mm Debeglass antenna tower guy-wire substitute available as a stock line. The addition of DB-6, 6mm Debeglass to the range means that their customers now have the choice of 4mm, 5mm and 6mm sizes.

For those not familiar with Debeglass, it is a non-conducting, non-corrosive, low elongation, high tensile wire substitute which has a number of applications in the area of radio tower guying. It also has applications in many other areas including the fishing and marine industries, mining, offshore exploration and drilling as well as building.

The new 6mm diameter D8-6 debeglass has a tensile strength of 970 kilograms with a weight of only 44 grams per metre. D8-5 and D8-4, 5 and 4mm debeglass, offer 560 and 430kg tensile strength respectively for weights of 31.5 grams and 19.5 grams per metre. Termination of the three Debeglass sizes is done simply by using a thimble and standard "D" clamps or with a Debeclip, of the type shown in the photo.

For full specifications and a brochure on the range of Debeglass wire substitutes contact the Australian distributors: GFS Electronic Imports, 17 McKeon Road, (P.O. Box 97), Mitcham, Victoria, 3132. Phone (03) 873 3777, or Telex: 38053 GFS.

WELZ METERS

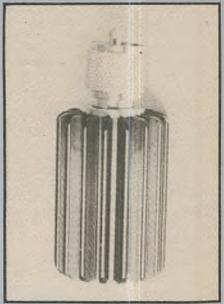
Standard Communications have in stock a new range of meters from this well known Japanese manufacturer. Of interest to VHF/UHF users would be the ME430 (SP430), which has a four scale illuminated meter which shows the voltage to the transceiver (to 20 volts DC), SWR, and two RF power output scales (0-5 watts and 0-20 watts). The meter also has an "On Air" indicator light, and can be mounted by means of strong double sided tape (supplied), or by solid mounting with screws, also supplied. The RRP is \$102.

Also in the new range are two RF meters covering 50-500 MHz — the MEO5X (3W/5W peak), which can be attached to any suitable handheld with a BNC antenna connector, and the ME25A (25W), which can be attached to VHF and UHF mobiles. Both are priced at less than \$60.

Welz also have in their new range a lightning arrestor, CA 35A (300 watts), and the CA 20A durnmy load terminators (15 watts, 100 watts peak), priced at \$42 and \$37 respectively.

The high quality 50 ohm co-ax switch, CN 20A giving two outputs up to 900 MHz at 1 kW, with an insertion loss of less than 0.1dB, completes the range of Welz equipment. This switch is priced at around \$58 RRP.





EMERGENCY SERVICES GUIDE

If you're travelling outside a capital city and become involved in, or come across, an emergency 'incident', who do you contact?

A recently published "Emergency Services Guide" provides all the answers for those travelling in South Australia.

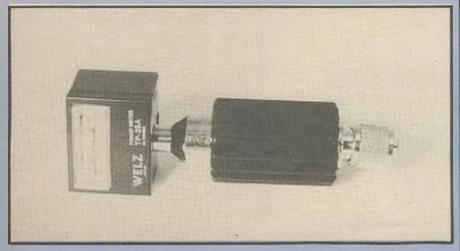
The guide gives the location and telephone numbers of each emergency service in the State, both country and metropolitan.

Contained in a hard-cover ring binder, the guide contains five sections — Ambulance, Fire, Police, Miscellaneous, Radio Frequencies.

The 'Miscellaneous' section includes 'Law Enforcement' (Federal Police, Military Police, Australian Protective Services, ASIO); 'Aviation' (Civil and Military Aerodromes); 'Marine' (Coast Guard, Surf Life Saving, Sea Rescue etc), and 'Utilities' (Highways Dept, Electrical supply etc).

Radio frequencies in regular use by both emergency services and commercial organisations are numerically listed in the guide's fifth section.

The Emergency Services Guide is available from ESG, PO Box 280, Hahndorf, South Australia, 5245 at \$11.99 plus \$2.00 P&P.











NEW POWER SUPPLIES

Standard Communications have released a new range of power supplies to cater for every CB need, under their Electrophone label. They can now offer the following models: PSE 122 1 amp continuous current, 2 amp peak, current foldback 3 amps RRP \$69; PSE 124 2 amp max continuous current, 4 amp peak, current foldback 5 amps RRP \$89.95; PSE 126 3 amp continuous current, 6 amp peak, 7 amp foldback RRP \$138.33; PSE 1210 5 amp continuous current, 10 amp peak, 11 amp current foldback, \$186.

For many years Standard Communications marketed other brands of power supplies, either imported or locally made, however the PSE scries have been designed to overcome many of the failings of these older units, by incorporating many unique features such as current foldback, which prevents damage to the power supply and rig should the output become shorted. In the event of the power supply running for too long a period at the maximum peak current rating, the supply will automatically shut down, and resume when it has cooled down, thus preventing overheating. The PSE range also features a built-in amp meter, illuminated on/off switch, heavy duty terminals, and a rugged outer case. All units are fully approved by electricity authorities and guaranteed for 90 days.

-New Gear-



NEW ICOM RECEIVER

The new IC-R7000 uses advanced technology to achieve continuous coverage from 25MHz to 1300MHz. No additional module is required to achieve coverage up to 2000MHz. CPU based optical tuning provides 100Hz steps over the entire range. This is enhanced by using a direct entry keyboard for frequencies that are known to the user or precise tuning via a rotary system that offers tuning speeds of 0.1, 1.0, 5.0, 10.0, 12.5, or 25kHz. The frequency selected is always displayed on a 7 digit dual colour fluorescent readout. The mode selected is also displayed on this readout.

teom's R7000 uses multi-conversion techniques for reception of FM (both narrow and wide band), AM and SSB (upper and lower). 99 memories are available to the user, each capable of recording mode and frequency. Further, the memory can record active frequencies while in the scan mode without

disabling the scan. Later, the memory may be interrogated for active frequencies. Scanning may be done by mode, programmed scan, full scan, selected scan, memory channel scan, auto write programmed scan and priority scan.

An optional infra-red remote control model RC-12 will control all the functions of the R7000. This will be available shortly.

Outstanding performance of the R7000 places the radio in the professional class. The spurious and image rejection performance is better than 60dB and sensitivity is typically better than 0.5uV for 12dB SINAD. The radio is powered from either 13.8VDC or mains supply. The compact size of the R7000 will invite mobile use. The IC-R7000 is a perfect companion for the now famous HF receiver model IC-R71A.

ICOM (Australia) Pty Ltd will happily provide further data on this new receiver. The address is 7 Duke Street, Windsor, 3181, Victoria or phone (03) 51 2284.

BASE MICROPHONE

Color matched and designed to suit the popular Electrophone range of transceivers, the MC 521A desk microphone comes from Standard Communications. The MC 521A is an omni-directional dynamic microphone with pre-amplifier and volume control. It is manufactured from high quality ABS resin, and colored brown, cream and gold to match the familiar Electrophone house colors but it will work on other brand transceivers as well, RRP \$64, and available from Standard Communications or your Electrophone dealer.





NEW UHF RIG

UHF CB enthusiasts are eagerly awaiting release of the new Royce TS-133 UHF mobile.

Features of the Royce include electronic up/down channel selection on both mike and radio, scanning and push-button reset to the calling, emergency and highway channels.

Repeater access is standard, and optional selcall is available. The rig itself is a 'slimline' unit, measuring a compact 27 (H) x 162 (W) x 143 (D)

Also included is a high-low power switch — for use with the over-the-shoulder portable pack soon to come. Along with the base station module, this will make the TS-133 the most versatile UHF CB yet.

Hatadi has also released a base module for its popular Leopard UHF CB. The module includes an approved power supply, external speaker and all connections.

For further details, contact your local Hatadi-Pearce Simpson dealer, or call Hatadi on (02) 997 7077.

Classifieds.

WANTED to buy. Midland radios SSB. 18-23-40 channels—it doesn't matter, as long as they are in good working order. Contact Audrey Koeppen, 7 Jacob Avenue Georgetown, Tasmania.

FOR SALE Channelex 400, covers 26MHz to 28 MHz. 10 kHz or 5 kHz steps. One LED out, works well. Sell for \$160 ONO. Ring Marco, 070 911192 work.

AUSTRALIAN International CB Social Club. New members wanted, must be licensed. For details send SAE to Box 150 Inala QLD 4077 for quick reply.

WANTED latest USA CB books. Write to Al 01, Bill PO Box 150 Inala QLD 4077.

URGENT. Wanted to buy one full circuit of 35 watt linear amp suitable for 26-27 MHz. Will buy. D.J. Green, 9 McCurdy Street, Brockville, DUNEDIN NZ.

WANTED. Will buy one CB atlas from USA, CB jargon book, both Australian and US. D.J. Green 9 McCurdy Street, Brockville, DUNEDIN NZ.

WANTED one only antenna trimmer control knob to fit Hallicrafters SX-100 Mark 2. Can anyone help with a knob-the set is complete. Ibix 08, 13 Brooks Court TATURA VIC 3616.

WANTED Any scanner operators who would like to exchange frequency listings. Please contact Alan Muddle PO Box 50 DUNGOG NSW 2420.

WOULD you like to become part of a fast growing international radio club? Write to Trans-World CB Radio Club c/-90 Crozier Ave, DAW PARK, SA 5041.

THE 1986 CALLBOOK lists every known licensed CB operator in over 70 countries. Will you be in it or will you be one of the few unknowns? For free listing without any obligation whatsoever on your part send your full name (both christian and surname), address and licensed call letters and number right away. Optional — if in addition you would like free membership of the Callbook Club, include a 50 cent stamp for membership card and club literature, Callbook Club, 18 Malvina, Gorokan NSW 2263.

THE LAKESIDE OSL CLUB, established 1977, invites membership applications from reliable QSL card collectors who really do QSL 100%. Application, form free on request or if you wish send \$1 stamp for specimen copy of the club quarterly magazine (refundable if you join). Secretary, 18 Malvina, Gorokan, NSW 2263.

WANTED URGENTLY one copy of the 1985 World CB Callbook, (out of print since February 1985). Will pay \$20 for a good condition clean copy. Write first, 18 Malvina, Gorokan, NSW 2263.

QSL COLLECTORS send today for information on the Gumboot QSL Club PO Box 4127 New Plymouth New Zealand 4630. Active members in 68 countries world wide!!!!

SWAP QSL cards with Lakeside members world wide. My card is vital for your Universal Award. Sean McNulty, 13 Syenite Place BT34-3EP Co. Down Northern Ireland UK.

WANTED any diagrams to do with CBs original or photocopied. Please write to G. Wyhoon 33 Bena Rd Korumburra Vic 3950



QUAD ANTENNA plans. The best antenna, one to six element, no tuning problems, low SWR. Send \$10 and SAE to C. Richards, Unit 1/652 Grange Rd, Hentey Beach, South Australia 5022.

advertise free

Readers of CB ACTION QUARTERLY may use the classified columns to the extend of 25 wards without charge. Each additional word wifi cost five cents. Address and telephone numbers are counted as wordage. Two insertions from the one person in one issue will be costed as one advertisement.

Advertisements from commercial establishments will not be accepted except as display advertising. Prices and details can be obtained on application to The Advertising Manager CR ACTION QUARTERLY, Box 628E GPO Melbourne Victoria 3001.

Photographs may be admitted to accompany advertisements without charge and will be published provided space is available. Firm requests for the insertion of photos must be accompanied by an additional \$2 fee. Every attempt will be made to ensure that the advertisements will be included in the next issue of the magazine. Priority will be given on a first come first served basis dependent on the space available. The publishers reserve the right to refuse any advertisement which in the opinion of the Editor does not comply with the Victorian Consumar Affairs. Act (1972) or is not legible.

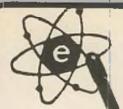
Post the coupon to: CB ACTION CLASSIFIEDS, BOX 628E GPO MELBOURNE 2001.

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ADDRESS AS THE ADVERTISEMENTS WILL NOT BE ACCEPTED UNLESS THE FULL NAME AND RESIDENTIAL ADDRESS OF THE ADVERTISER APPEARS ON THE BOTTOM OF THE COUPON. THIS INFORMATION WILL NOT BE PUBLISHED.

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25

Name	
Address	***************************************



EMTRON ACE

AUSTRALIA'S MOST POPULAR 40 CHANNEL GENERAL PURPOSE HAND HELD

DESIGNED SPECIALLY FOR AUSTRALIA With features and specs better than most commercial grade transceivers, EMTRON-ACE covers the UHF CB band, both simplex and duplex. It comes complete with nickel cadmium battery pack, belt clip wrist strap, flexible antenna — -all standard, at no extra cost.

FEATURES:

- 40 Chancel UHF CB
- Repeater offset
- RF Output: 2W high, 0.4W low, 3W with 10.8V battery
- Illuminated channel selection switch for night operation
- Small in size
- Big in performance
- Full range of accessories

GENERAL SPECS

Freg range: 476.425 - 477.400

MHz UHF/CB

Freq control: Digital PLL synthesi-

ser

Type of emission: 16F3 Antenna Impedance 50 ohms Power supply: 8.4V - 15%

Operating temperature: - 10 to +60°C

"WHAT AN ACE" NSW GOVERNMENT CONTRACT FOR ACE

Our "UNIQUE EMTRON ACE" has beaten all major competitors and won NSW Government supply contract No. 677 item 34A.

We are proud of this great achievement of Australia's most popular UHF CB hand held transceiver. COMPETITORS — EAT YOUR HEART OUT!



KT-SM-1 EXT Microphone



KT-PA DC/DC Converter



KT-BP Ni-cd Battery Pack



KT-BA Dry Cell Battery Case



KCS-100 Deek-Top Dual Charger

APPLICATIONS

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 - General Sport
 - Surveying
 - Personal
 - Communication

Security

Business

Mobile and Portable

Communication

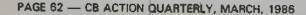


KT-BMC Mobile Charging Cord



KT-LC Carrying Case

NOW ALSO
IN STOCK NEW
10.8V High Power
NI-CAD POWER PACK
For 3W RF OUT





AR2002



25-550MHz/800 - 1300MHz CONTINUOUS VHF & UHF monitoring & surveillance PROFESSIONAL RECEIVER - SCANNER

The AR2002 receiver provides high performance monitor and surveillance reception over a wide frequency range; 25 — 550MHz and 800 — 1300MHz.

The wide frequency coverage, combined with reception modes of AM, FM (wide), and FM (narrow), make the AR2002 a versatile unit for a range of applications:-

- General off air monitoring
- Spot frequency monitoring/ measurement
- Selective multi frequency analysis
- Spectrum surveillance
- Detection of unwanted transmission . . and much more.



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WE STOCK ALL UNIDEN PRODUCTS AT BEST PRICES



SUNDOWN

40 channels, all repeaters fitted international 5 tone selective calling system available as optional extra.

INCREASE YOUR POWER THE LEGAL WAY - WITH DATONG—ASP

Automatic speech processor ASP has the effect of raising your transmitted power by 6 to 10 d8 (4 to 10 times) and it's all legal.

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INCREASE SENSITIVITY OF YOUR

CB RADIO WITH THE NEW

DATUNG-RFA

TX/RX SWITCHING PRE-

AMPLIFIER

Low noise figure 3dB, high inter-cept point plus 20dBm and moder-

WE ARE THE **ELECTROPHONE** STOCKIST

LARGEST RANGE Of Regulated DC

- **Power Supplies** 240V AC Input 13.8V DC Output
- Output Current 6-10-15-20 and 30 AMP ALINCO-DAIWA-THP

We stock the largest range of rota-tors in Australia at best possible

KR-400RC

Medium Duty Rotator



NEW SUPER SCANNER ANTENNA DA-300 is a wide band discone an-

tenna for AOR, it covers a frequency range from 25-1.3GHz.

Only \$169



MELBOURNE

SYDNEY 2-94 WENTWORTH AVE, SYDNEY,

3-294 QUEEN ST, MELBOURNE, 3000 Entrance from 11 Lonsdale St. (03) 67 8551 or 67 8131. NSW 2000 Ph (02) 211 0988, Telex: AA 73990 EMOLEC. RRESPONDENCE & MAIL OADERS: BOX K21, HAYMARKET, NSW 2000

CB Action Club Register

NSW

Amateur and Citizens Radio Club, 2 Griffith Ave, Roseville NSW 2069

Argonauts Radio Contact Club, c/-o PO Railway Town NSW 2880.

Barrenjoey Peninsula Area CB Radio Club, PO Box 25, Avalon NSW 2107.

Berowra CB Radio Club, PO Box 2, Berowra NSW 2081.

Black Ace CB Club & CB Callbook Club of Licensed Operators, 18 Malvina Pde, Gorokan NSW 2263.

Blue Mountains Repeater Association, PO Box 358, Granville NSW 2142.

Central Western Citizens Band Community Radio Club, PO Box 628, Orange NSW 2800.

Disabled Water Sports Charity No 2023, c/- PO Saratoga NSW 2250.

G.L.C. Eastern Bases CB Radio Club, PO Box 767, Gosford NSW 2250.

Gosford Citizens Radio Club, PO Box 447, Gosford NSW 2250. National Dingo Association c/- Smithville via Broken Hill NSW 2880.

Greater Cessnock City Radio Association, 48 Mayfield St, Cessnock NSW 2325.

Mallee Radio Australia CB Radio Club, PO Box 920, Griffith NSW 2680.

Metropolitan West Radio Club, 74 Van Diemen Ave, Willmot NSW 2770.

Mike India CB Radio Club, PO Box 778, Campbelltown NSW 2560.

Moonlighters District Radio Club, PO Box 13, Hawks Nest NSW 2324

Native Dog Hill CB Club, PO Box 50, Warril NSW 2528. November Alpha Club, PO Box 412, Narrandera NSW 2700. Overland Radio Club inc Sydney Branch), PO Box 295, Dee Why Sydney NSW 2099.

Pathfinder Radio Group NSW, PO Box 167, St Mary's NSW 2750. Pioneer CB Radio and Social Club, PO Box 34, Boolaroo NSW

REACT NSW State Tearn, 716 Peel St. Albury NSW 2640 Riverina Radio CB Social Club, 29 Parkinson Cres, Griffith NSW 2680

Shallow Water Sierra Whisky Club, PO Box 857, Nowra NSW 2540.

Tango Romeo Echo CB CLub, PO Box 688, Taree NSW 2430. Tango-X-ray Side-band Radio Club of Australia, PO Box 664, Castle Hill NSW 2154.

The Beam Club of Australia, PO Box 633, Brookvale NSW 2100 Western Radio Club, PO Box 88, Enfield NSW 2136. Wombat CB Radio Club, PO Box 348, Lavington NSW 2641.

WA

ACRIM WA, South West Division, 68 Rogers Avenue, Katanning WA 6317.

Alpha Whisky Alpha Club, PO Box 997, Albany WA 7330. Australian Radio Group, PO Box 429, Merridin WA 6415 Black Swans CODX Club of WA, PO Box 220, Kwinana WA 6167. Bunbury Radio Club Inc, PO Box 32, Bunbury WA 6230. Canning River Radio Club, 53 Parkside Ave, Mt Pleasant WA 6153.

Carnarvon Radio Club, PO Box 294, Carnarvon WA 6701. Freedom Group Perth, PO Box 9, Palmyra WA 6157.

Golden Hawk CB Radio Club of Australia, PO Box 1183, Bunbury WA 6230.

Perth Acrem and Mustang CB Social Club, PO Box 193, Greenwood WA 6024.

Pilbara Radio Group, PO Box 95, Parraburdoo WA 6754.

Port Hedland Whisky Alpha CB Club, PO Box 2142, South Hedland WA 6722.

The Mango Club, PO Box 241, Hillarys WA 6025

The UHF Association of WA Inc, PO Box 176d, Hillarys WA 6025.

REACT WA State Team, 11 Coates St, Hamilton Hill WA 6163. Wanneroo Citizens Radio Emergency Services Teams WA Inc, PO Box 402, Wanneroo WA 6065.

Western Radio Club, 104 Atkinson St, Collie WA 6225.
Wild Geese International Combat Vaterans Radio
Communications Group, PO Box 73, Como WA 6152.

QLD

ACRM QLD Inc, PO Box 213, Everton Park Brisbane Qld 4053. Australian Bulldog Club, 37 Sunderland St, Garbutt Townsville Qld 4814.

Australian International CB Social Club, PO Box 150, Inala Qld 4077.

Brisbane Volunteer Emergency Monitoring Service, 22 Reks St, Buranda Qld 4012.

Bunya Radio Club, PO Box 575, Kingaroy Qld 4610.

Color Postcard Express International QSL and Postcard Swap Club (Australian rep), PO Box 111, Oakey Qld 4401.

Dirty Water CB Club of Australia, PO Box 262, Morningside Old 4170.

Golden City CB Club, PO Box 557, Gympie Qld 4570.

Hervey Bay and District CB Club, PO Box 382, Pialba Qld 4655. Inlanders CB Radio Club of Australia, PO Box 5712, Rockhampton Mail Centre Qld 4702.

Leichhardt Radio CB CLub, PO Box 2386, Mt Isa Qld 4815. Premiere Radio Social Club, PO Box 631, Synnybank Qld 4109. REACT QLD State Team, Box 5227, Cairns Mail Centre Nth Qld 4871.

Toowoomba District CB CLub, PO Box 5387, Toowoomba Qld 4350.

Toowoomba Mountain CB Club, PO Box 5299, Toowoomba Qld 4350

Ultra Lite Radio Club Brisbane, c/- PO Box 13, Carina Qld 4152. Zodiac International DX Radio of Australia, PO Box 189, Albion, Qld 4010.

SA

Australian Citizen Radio Monitors SA Inc (ACRM), PO Box 83, Prospect SA 5082.

Australian Independent Monitoring Service Inc, SA Division, PO Box 86, Stepney SA 5069.

Christie's Beach Citizens Band Radio Club, PO Box 22, Moana SA 5169

Coonawarra CB Radio Club, 2 Eyre St, Barmera SA 5345.
Eagle Radio Group, PO Box 302, Morphett Vale SA 5162.
I Hate Washing Dishes, PO Box 210, McLaren Vale SA 5171.
REACT SA State Team (Inc), 1 Flavel Tce, Murray Bridge SA 5253.

Scorpion CB Radio Club, PO Box 312, Elizabeth SA 5112. Southside CB Radio Club, PO Box 95, Glenelg SA 5045. South West Radio and Social Club Inc, Box 381, Morphett Vale SA 5162.

Strangers CB Social Club, PO Box 79, Ingle Farm SA 5098. Trans-World CB Radio Club International, 90 Crozier Ave, Daw Park SA 5041.

VIC

Australian Radio Social Club, PO Box 222, Seaford Vic 3198. Bell Bird Club of Vic, c/- PO Box 39, St Andrews Vic 3761. Bravo CB Radio Club, 11 Roxburgh Ave, Yallourn North Vic 3837.

Bravo Mike Radio Club, PO Box 94, Melton Vic 3337.
Bravo Sierra Bravo Radio Club (BSB), PO Box 277, Bendigo Vic 3550.

Gippsland Repeater Assocn, PO Box 77, Sale Vic 3850. Grampians CB Club, c/- J. Delley, 1 Johnston St, Stawell Vic 3380

Horsham CB Club, PO Box 730, Horsham Vic 3400. International Crusade Assocn, PO Box 2616W, GPO Melbourne Vic 3001.

Nightowl Radio Club of Victoria, PO Box 97, Huntingdale Vic 3166.

Omega Radio Club of Victoria, PO Box 50, Chadstone Centre Vic 3148.

Radio Charity Group, Latrobe Valley, PO Box 237, Churchill Vic 3842.

Radio Emergency Associated Citizens Team, 113 Blair St, Portland Vic 3303.

Radio Enthusiasts Club of the Blind, PO Box 219, Glenroy Vic.

REACT VIC State Team, 5 Damian Crt, Wodonga Vic 3690. Region Dandenong CB Radio and Social Club, PO Box 57, Doveton Vic 3177.

Riviera Radio Club of Australia, c/- P. Robertson, 19 Taylor st, Bairnsdale Vic 3875.

Southern Cross Radio Group, PO Box 365, Leongatha Vic 3953. Sovereign Radio Club, PO Box 21, Sebastopol, Ballarat Vic 3356. Tango Victor Radio Club, PO Box 3, Timboon Vic 3268. Ultra-Hi Club, 8 Peter St, Bell Post Hill Vic 3215.

Victorian Scorpion Radio Club (South Gippsland), 39 Quigley St, Morwell Vic 3840.

TAS

FIB UHF Club, PO Box 18, Ridgley Tas 7321. Sierra Tango Radio Club, PO Box 433, New Norfolk Tas 7140. United Frequency Operators of Tasmania, 7 Jacob Ave, Georgetown Tas 7253.

NORTHERN TERRITORY

Australian Citizen Radio Monitors, NT branch Inc, PO Box 40327, Casuarina NT 5792.

Darwin CB Radio Club, PO Box 1234, Darwin 5794.

INTERNATIONAL

Dayglo QSL Club, 13 Synite Place, Rostrevor, BT34-3EP, Co Down, Northern Ireland, UK.

Gumboot QSL Club, PO Box 4127, New Plymouth 4630 New Zealand.

Lakeside QSL Club of Australia, 18 Malvina Pde, Gorokan NSW 2263.

REACT Australia Headquarters 1 Flavel Tce, Murray Bridge SA 5253.

REACT International Inc, 3653 Woodhead Dve, Northbrook, Illinois USA 60062.

Three Vikings QSL CLub, PO Box 34, 642 21 Katrineholm Sweden.

Wainui Radio Club, PO Box 836, Wellington NZ.

Get your club's name in the register. Send us some details of your activities and your areas of interest. Maybe we can help you get some more members.

CB Action Club Register
ADDRESS
P/CODE STATE

AUSTRALIAN UHF REPEATER LIST

		A411000	100ATICE	cnnucno
AREA	CHANNEL	CALLSIGN	LOCATION	SPONSOR
New South Wales			P. Lat.	Marie Besthare County Alexes Control
Jindabyna	1/31 1/31	JIN 01 SYD 01	Jindabyne Hurstville	Marist Brothers, Corinya Alpine Centre N.I.R.O.
Sydney Corowa	1/31	COR 01	Corowa	Corowa Electronics
Tamworth	1/31	TAM 01	Windworth	Landlink Communications
Canberra	2/32	CBA 02	Iseacs Ridge	Philips-TMC
Blue Mountains	2/32	KUR 02	Kurrajong Heights	Western Radio Club (N)
Parkes	2/32	PAR 02 NBR 02	Parkes Castletop Mountain	Bionics Australia Lance Hannaford Electronics
Narrabri	2/32 3/33	SYD 03	Prospect	Philips-TMC
Sydney Tenterfield	3/33	TEN 03	Mt McKenzie	Nathan Ross Electronics
Armidale	4/34	ARM 04	Armidale	New England Mobile Communications
Albury	4/34	ALB 04	Cavington	Albury Communications
Muswellbrook	4/34	MUS 04	Mt Arthur New Lambton	General Communications
Newcastle Coffs Harbour	6/36 6/36	NEW 08 CDF 08	Colls Harbour	Country Wide Communications
Morae	6/38	BO ROM	Terry Hi-Fa	Des Groth Radio-Electronics
Sydney	7/37	SYD 07	Willoughby	Philips-TMC
Bethuret	8/38	BAT OB	Mt Panorams	Serv-U Appliance Centro
Birmil Hitl	2/32	EDN 02	_	
Daniliguin	3/33	DNG 03	_	
Mj. Bobbars	1/31	BOB 01	_	
Mt. Rumbee	7/37	GLI 07		
Murtee Stn (Wilconnia)	1/31 2/32	MRT 01 LIS 02		
Raus Tumberumba	3/33	MTI 03	Mt Ikes	
Walbundrie	2/32	WBD 02		Corowa Electronics
Glenn Innes	7/37	? ?	_	
Lismore	1/31	7 7		
Victoria				
Melbourne	1/31	MEL 01	Broadmeadows	Philips-TMC
Hamilton	1/31	HAM 01	Mt Bainbridge	Hamilton Electronics
Bairnsdale	1/31	TAM 01	Mt Nugong	Bairnsdale Communications
Mos	2/32	MOE 02	Moe	Gippsland Repeater Association
Ballerat	2/32	BAL 02 MEL 03	Mt Burinyong Lysterfield	Central Highlands Repeater Association Philips-TMC
Melbourne Yelta	9/33 3/33	YLA 03	Yelta	Nor-Co Sales & Service
Bendigo	4/34	BEN 04	Specimen Hill	Central Victorian Repeater Association
Carrajung	4/34	CRJ 04	Carrajung	Carrajung UHF CB Repeater Association
Hawkeadsle	4/34	HAW 04	Havvkesdale	B
Melbourne	5/35	MEL 05	Olinda	Peravic Sports Association (E) Gippsland Repeater Association
Gippaland	6/36 6/36	GIP 06 WIL 06	Mt Taylor Mt William	M1 William UHF CBRs Rpt. Committee
Ararat Wangaratta	8/36	WAN 06	Warby Ranges	Corowa Electronics
Melbourne	7/37	MEL O7	Frankston	Powerband Communications
Shepperton	7/37	SHP 07	Shepperion	Angus Communications
Victoria (anywherat)	8/38	MEL 99	Anywhere	Omega Radio Club (P)
lake Eildon/Alexandria	1/31	ALX 01	Mt Eildon	Weeks Radio
Mt. Wombst	3/33	WBT 03	-	
Weeaproinah	2/32	WPH 02	_	
Queensland				
Brisbane	1/31	BNE 01	Mt Cotton	Philips-TMC
Bundeberg	1/31	WBB 01	Mt Perry	Bundaberg Hi-Fi Stereo
Mt Ing	1/31	JLS 01	Mt Isa	Queensland Educational Department
Rockhampton	1/31	RKY D1	Mt Archer	Capricognia UHF Repeater Association
Atherton-Mareeba Gunalda	1/31 2/32	ATH 01 GUN 02	Rocky Creek Gunalda Range	Maartens Electronics Ralph Hill Electrical
Taroom	2/32	TAR 02	Taroom	Taroom Repeater Association
Toowoomba	2/32	TWB 02	Toowoomba	Custom Scientific Electronic
Mackey	3/33	MKY 03	Farleigh	Mackay Citizens Repeater Group
Monto	3/33	MTO 03	Pine Mountain	Monto UHF CBRS Repeater Committee (N)
Tin Can Bay	3/33	DIP 03	Double Island Point	Tin Can Bay Lions Club
Springeure	3/33	SPR 03	Springsure	Bauhina S.E.S.
Mt Hopeful Mt Mowbullan	4/34 4/34	HOP 04 GTC 04	Mt Hopeful Mt Mowbulfan	Mt Hopeful UHF Repeater Association G.T. Communications
Bundaberg	4/34	BBG Q4	Sloping Hummack	Bundaberg Hi-fi Stereo
Goondiwindi	4/34	GDI 04	Goondiwindi	Border TV & Radio Communications
Brisbans	6/35	BNE 05	Torbreck	ACRM (Queenstand)
Bald Knob	6/36	NDC 08	Said Knob	Ralph Hill Electrical
Gladstone	6/36	GLD 08	Mt Larcom	Nixon Controls
Paim (sland)	6/36	PAL 08	Palm Island	Contrar Principle Character
Brisbana Murgon	7/37 7/37	BNE 07 MUR 07	Toohey Mountain Murgon	Custom Scientific Electronics Murgon Repeater Association
Bilosia	7/37	BIL 07	Mt Bertha	Biloela Repeater Association
Clermont	1/31	BDK Q1	-	- now reposite resounted
Dingo (Blackdown T/land)	6/36	BLK 06	_	
Mariborough	2/32	MAB 02	_	
Mt. Yerrabah	3/33	YRB 03	_	
Trinided	2/32 3/33	TRN 02 GCG 03	Mr Vauchal	CEE Commission
Caims	্যা <i>ন</i> ্ত্ৰ	000 03	Mt Yarrabah	GCG Communications

South Australia				
Adelside •	1/31	ADL 01	Summerton	Philips-TMC
Cleve	2/32	CLV 02	Mt Nield	Cleve Repeater Association
Mt Gambier	2/32	MTG 02	The Bluff	South-East UHF Repeater Association
Adeleide	3/33	ADL 03	Trott Park	Philips-TMC
Kangeroo Island	4/34	PKI 04	Parndana	Kangaroo Island Repeater Association
Adeleide	5/35	ADL 06	Hawthorndena	ACRM (South Australia) (E)
Whyatla	6/36	WHA 08	Mr Laura	Gulf Communications
Quarry Hill	7/37	CLR 07	Quarry Hill	Mid-North Repeater Association
Mt Bryan	8/38	BRY OB	Mt Styan	Mi Bryan Repeater Association
Port Lincoln	6/38	PLT 08	Tumby Bay	Kayem Electronics
Black Rock Peak	2/32	BRP Q2	Black Rock Peak	Toops Electrical
Grose Island	5/35	GRS 05	_	
Northern Territory				
Darwin	1/31	DRW 01	Darwin	Seascan Communications
Western Australia				
Perth	1/31	PER O1	Wannezo	Philips-TMC
Bunbury	2/32	BUN 02	Rowlands	Greyhound TV Sales/Service (N)
Perth	3/33	PER O3	Roleystone	Philips-TMC
Mt Barker	4/34	MTB04	Mt Barker	Plantaganet Repeater Institute
Dinniup	4/34	8YB 04	Dinnique	Boyup Brooklarm Communications Group
Wyalkatcham	6/36	WKM 06	Wysikatchem	D & GJ Peace
Margaret River	8/36	MGR 06		- 0 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Mt. Bakaweli	7/37	YRK 07		
Wickham	1/31	WIK 01	<u> </u>	

Ţasmania			_	
Central Tasmania	3/33	NEC 03	Tower Hill	NE Repeater Group
Hobart	1/31	H9T Q1	Mt Faulkner	CREST
Launceston	2/32	LCN 02	St Leonards	Launceston Repeater Association
Burnie	8/38	BRN 08	Round Hill	North-West Coast Repeater Association
Triabunna	6/36	REC 06	Mt Tombs	East Coast UHF Repeater Assoc.

This list was compiled from official DOC information, club newsletters, reader's letters and telephone calls. If you have any additional information as to new repeaters, locations, sponsors etc, please forward the information by mail to:

CB Repeater List c/o GPO BOx 628E MELBOURNE. VIC 3001



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UHFAWA

Further to the last issue's brief details on the different state-based UHF clubs, I was pleased to hear from the UHF Association of Western Australia (Inc.).

The UHFAWA, like many of its sister UHF groups, was formed after local enthusiasts raised the idea on air one evening. Shortly after wards (in September 1983), a barbecue-meeting was held, and the UHFAWA began.

Since then, the UHFAWA has established itself as the representative group for UHF CBRS operators in WA, and has an excellent working relationship with DOC and other relevant organisations.

A monthly newsletter ('UHF News') is produced, supplemented by a weekly broadcast and callback session. This is held on Perth's ch. 3/33 repeater each Wednesday night, from 8.00-8.30pm (and with the permission of the local DOC, what's more!).

The UHFAWA also hold an official club callsign (WCB-666), and have recently taken charge of the Margaret River ch. 6/36 repeater.

Most impressive is their UHF information sheet, which explains 'all you need to know about UHF', in a most concise and understandable manner. Licencing, operating procedure, repeaters, even basic UHF propogation is covered. This leaflet was wholly written and printed by the UHFAWA, and is an ideal introduction to the band for the new operator.

For futher details or the UHFAWA, write to them at PO Box 176 Hillarys WA 6025, or drop in on their weekly broadcast.

CBA CLUB REGISTER

Last issue's club register was looking very healthy indeed — a grand total of 72 groups listed. It was pleasing to see so many familiar names on the roll, representing clubs that have been going strong since the early days of Australian CB radio.

I've always believed that clubs — be they on-air groups, loose associations of friends, or well-run, 'high profile' pillars of the local community — are a mainstay of our hobby.

Along with the industry (from equipment importers/distributors to the local store) and magazines (when we're lucky enough to have 'em), they represent the strength and continuity of CB radio.

Thanks also to the many people who sent me details of their clubs' activities and supplied the items for this issue's 'Club News'. The newsletters, in particular, were read with great interest. Keep 'em corning, club secretaries!

FASHION ACCESSORIES

I know that sounds like something out of an Yiles St Laurent collection catalogue, but some clubs are going far beyond the old favorite 'club T-shirt' when it comes to promoting their group.

This is of course a simple and costeffective method of giving your club
real identity at meetings, social gatherings, and especially public activities
and inter-club get-togethers. Some
clubs have added extensively to the
idea, which brings to mind a 'fashion
show' held at a recent meeting of a club
which, by their request, shall remain
anonymous.

A highly attractive and fun-loving female friend of a member did the catwalk routine at this meeting, to show the full range of club apparel. The right music, some strobed 'musicolour' lights — it was worthy of Vogue magazine (or thereabouts).

The lass wore a club co-ordinated outfit, starting at the top with a cap and a club emblem. A lightweight spray jacket (with arm striping, and in club colours), with emblem over the left-breast pocket; beneath, the heavier-duty windcheater, with the same treatment. This was removed to reveal a club T-shirt, with matching key-chain attached to the jeans.

What a way to launch club merchandise! Also popular in this group are their log-books, decals and armpatches.

Such items (primarily dress kit) can be either purchased wholly by the club, or the costs can be split with a local business (such as the neighbourhood radio store) in return for advertising (on T-shirts etc).

By the way, members of the aforementioned club are now trying to convince their committee to make available bikinis and lace underwear in club colours — if only to see the same young lady model them!

OMEGA RADIO CLUB

At time of writing, Melbourne's Omega Radio Club have just completed their last communications exercise for the year. But, with their commitment to proving the usefulness of UHF CB through such events, I'm sure their 1986 calendar will be well underway by the time you read this.

The most recent event was the Australian Rally Championship organised by Akademus, Melbourne University's car club.

51 vehicles took part in the mid-November rally, held in Forestry Commission grounds in the Gippsland area, some 250 km east of Melbourne. For their part, the Omega Radio Club fielded a dozen members, who co-ordinated radio work for the entire event.

The first stage of the rally was held at Sale, and the club's famed MEL 99 portable repeater was pressed into action. Operating on ch. 7/37, it bound the UHF network of control points together, although it did cop a beating from nearby Gippsland ch 6/36!

The second stage, at Bairnsdale, used a simplex net, with a base atop Mt Moornapa. However, wet weather called an early end to the rally.

From Saturday morning to 4am Sunday, the Omega Radio Club team stayed on duty, using UHF with the ever-reliable 27 MHz SSB as back-up.

Of course, you don't need a portable repeater or a group of UHF stalwarts to get your club into rally work. Many car clubs run day-long sprints, hill-climbs and regular rallies. Just a few AM rigs around the track, one in the control tower and the pits or timing tent — and your club can give members an enjoyable and interesting activity. So why not contact your local car club, and ask how your club can help?

PUBLICITY FOR YOUR CLUB

I've received a number of enquiries from readers, asking how they can better publicise their club. As this is a topic of interest to any radio club, I thought it would be best to outline the basics, as explained to those readers, in this column.

Perhaps the most effective publicity for a radio club can be achieved through your local press — the suburban newspaper. Major metropolitan daily papers (Telegraph, Daily Sun etc), radio and TV stations aren't normally concerned with club activities, unless they are very newsworthy.

Two examples of this which come to mind, are the Western Radio Club's attempt to contact the space shuttle Columbia via amateur radio, and the Sydney VK-CB Club's efforts in last year's Mexican earthquake, providing the first Australian link with the devastated city.

As most radio clubs have a 'local' orientation, the suburban newspaper is ideally suited to their needs. These papers are delivered free to all homes in the area, and so reach both CBers and non-hobbyists alike.

The general public learns a little more about radio, and perhaps some of the ways in which it can be used to help the community — that, in effect, 'they're not all ratbags!'

The CBer will almost certainly mention the article over the air to friends — all of a sudden, your club is the most talked-about group on the airwaves!

Yet, for all the advantages, few clubs make use of local press — so here are a few pointers.

The simplest form of publicity for your club is notice of the monthly meetings. The name of the club, day/date of the meeting, location and time — the magic phrases 'visitors welcome' or 'local CB enthusiasts invited' are a nice touch.

This, like all 'press releases' to newspapers, should be written. Typing is best, with double-spacing, well laidout, a one-inch margin either side of the page.

Where possible, supply a contact name and phone number with the release. You can specify that these are not for printing, but at least the newspaper staff can contact you if any other details are needed.

Bear in mind the deadlines for the newspapers. These are normally printed in the paper, or you can ring the editorial office and ask. You'll probably have to prepare your notice almost two weeks before the meeting. If possible, hand-deliver it — you will know that it has been received, and establish important personal contact with the staff.

For larger events — major club activities or achievements, helping some

community work or such — you may decide to inform the paper by 'phone, and let them ask the questions. However, it is always preferable to supply something in writing, even just the relevant details in point-form, and fill in other aspects over the phone.

Photographs, if desired, can normally be arranged by the newspaper, given adequate notice. You won't be charged, and getting the right photo is really a professional's job.

Finally, after a good write-up, call the paper and thank them for their efforts. This small consideration never goes astray.

If you have a local radio station — commercial or community-run — send them notice of meetings and such, which they may include in some 'community announcements' section.

After local newspapers, the best and most direct form of publicity is the letter-box drop.

This is rarely used by radio clubs, taking a bit more time and effort than any other method. But it reaches the CB enthusiast almost as well as on-air broadcasts and nets — sometimes better!

The idea is to have prepared a number of well-designed leaflets, printed or photocopied, which inform the reader about your club. You can even address it

'To the CBer'.

Then, each club member is given a few dozen leaflets, and drops them in the letter box of any house in his area with a CB antenna. Most of you know where the other local operators live, so it's not that difficult. You can even leave one on the windscreen of a mobile!

It's **not** illegal, and — like newspaper publicity — is certain to get people talking about your club.

It's sometimes an idea not to cover all local areas at one time — do a different part of the suburb each week, perhaps. Then you'll find an operator asks his mate if he 'got one of those leaflets from the radio club' in his letter box. The mate says no, and so his friend reads it to him, word for word, on air. Now that is cheap advertising!

REPEATER ASSOCIATIONS

As might have been noticed in both the club register and last issue's 'Club

News', the Gippsland Repeater Association is a very well-established group. In fact, they would be the first association to sponsor two repeaters — Gippsland 6/36, and Moe 2/32. It also demonstrates the trend towards such groups amongst 477 MHz enthusiasts.

Of the 110-odd repeaters currently operating, almost a quarter have been licensed to repeater associations. These seem to be most common in regional or country areas, with larger city installations being organised by companies (mainly Philips — good on you, guys!). Tasmania would be the only exception, where all repeaters have been erected by user groups (including the lads of Hobart CREST).

It is obvious that these associations are readily able to become something more than a simple business or community proposition. With the necessary meetings, fund-raising ventures, membership inter-action and social activities — as well as liaison with other UHF groups, as did Gippsland with the Omega Radio Club — repeater associations are the newest form of radio 'club'. I daresay many will tend to adopt such a role once their repeater is established.

CLUB AMATEUR STATIONS

Last issue, mention was made of CB clubs obtaining amateur radio licences — ham tickets issued to a club through the qualifications of an amateur member. This then allows members and others to operate the station, under the supervision of the nominee (or another suitably qualified person).

I've received many enthusiastic responses to this, but must repeat my caution that these stations **must** be operated in accordance with the licence, especially in regard to direct supervision.

Barely months before the release of the last issue, a recently-formed amateur radio club in Sydney's outer-western suburbs (an off-shoot of two sibling CB clubs), was discovered to be totally ignoring these rules, and allowing unlicensed members to operate the club station whilst the nominee was not present, or even anywhere nearby.

Now, I hope 'our man in Queensland' (Fewster) doesn't mistakenly label me a 'good buddy amateur', and I'll



acknowledge that many pirates could teach a few licensed ops about the finer points of on-air behaviour and such.

The real disappointment here is that the club was well and truly 'sprung' on air by other amateurs, through no one's fault but their own. The ensuing row (much of it on air) saw the club quickly fold, leaving students of two amateur classes in the lurch.

Worst of all, the whole affair re-affirmed the views of many amateurs on 'renegade CBers', and did much to undo the excellent work of so many clubs and individuals in promoting better relationships between amateurs and CB enthusiasts.

Some CB clubs have excellent relationships with local amateur groups; the UHFAWA and West Australian WIA share such open-minded attitudes; the Glen Innes and District Amateur Radio Club even acts as sponsor for Glen Innes' UHF CB 7/37 repeater.

So there's much good to be achieved by club amateur stations in furthering this understanding — if they are properly organised. You've only got to stick to the rules — don't let this

poor example of another club (not the Western Radio Club, to quell those rumours) dampen your enthusiasm, simply learn from it. And keep the whole show 'above board'.

WELL DONE!

Congratulations are in order to:

★ The Viking CB Social Club, who celebrate their eighth birthday this April. The Vikings are probably Sydney's most popular social radio group, and are very well regarded in their local area.

★ The Western Radio Club, who recently received a special commendation from the NSW Dept of Youth & Community Services. Recipients of a 'Community Achievement Award' from Sydney radio station 2WS, the club was also on the short list for the annual award (and a \$1000 prize). Winners were the Australian Volunteer Coast Guard, but the club was praised for its community service spirit, special activities for the 1985 International Youth Year, and having raised over \$10,000 for local charities.

★ Sam Voron and Sydney's VK-CB Club, who again took part in a recent

Simulated Emergency Test. These internationally-organised exercises present a scenario of crisis proportions, and examine the role of radio in each situation.

Previous SETs have included massive nuclear strikes, but this year's simulation was a less drastic total energy crisis. The VK-CB Club first introduced locally-oriented CB radio (both 27 MHz and UHF) to complement world-wide amateur operations. This SET saw another Aussie innovation — the use of 'packet radio' (sending large amounts of information in a high-speed burst of digital data), generated over the airwaves by a home computer (the ever-popular Commodore 64).

Unstable propagation on the HF amateur bands proved a weakness in previous SETs, but packet radio proved a most effective solution. About 50 of Sam's fellow operators took part, passing messages through the Sydney, Australian and international amateur traffic nets.

Clubs and groups are invited to send contributions for this column to 'CBA Club News', PO Box 429, Milsons Point, NSW, 2061.

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