

CB RADIO

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WHEN 27MHz WENT TO WAR



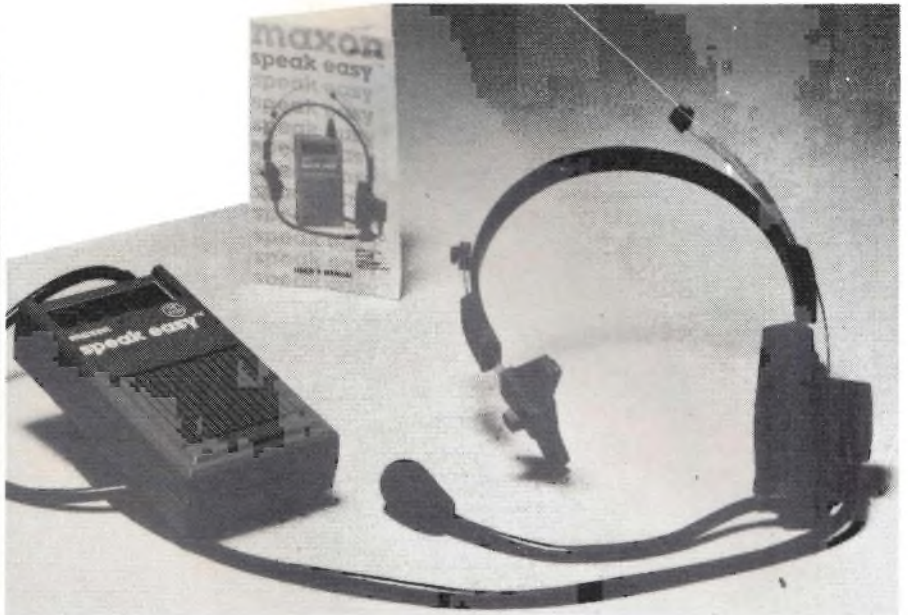
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NATO 2000
Featured in Over The Counter.....36

HAPPY NEW YEAR from CB Radio



WHEN 27MHz WENT TO WAR
F. C. Judd.....20

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ABC

Look into the crystal ball

On with the new

There is an unusual air of peace over the office at the moment. The phones are ringing, the photocopier is still gamely clanking out barely-readable copies, there is still a muttered expletive as the pencil point breaks and finger nails are clicking on typewriter keys but the staff seem, well, sort of quiet.

No, they haven't been sacked or taken a wage cut. No, they haven't read their articles for next month or been stunned into silence by the Office Christmas Party. They have got HANGOVERS. So, from behind the pile of stale turkey sandwiches and through the haze of shandy and pina colada fumes, we wish you a Happy New Year.

Talking of looking through a haze, this is usually the season for looking forward to the new year and maybe making a few educated guesses at events in the coming year. Not ones to miss the opportunity of proving ourselves totally wrong, here goes.

934MHz

It's reasonably sure that the use of 934MHz will grow. As can be seen by the article further along in this issue, the field (after being empty for so long) is beginning to get fuller. Reftec has sets on the market and there have been announcements from other suppliers like Beeware and Telecomms that they will be marketing sets in the near future. Although these sets are very much more expensive than the 27MHz equivalent, expense hasn't been a stumbling block in the past for people who know what they want and are prepared to pay for it.

The only things that can really stand in the way of 934MHz are lack of sets and lack of range. Hopefully, now sets are actually on sale, a shortage of equipment won't arise. The characteristics of 934MHz (or any frequency) are such that any distance cannot be guaranteed but it would seem from the people already using sets that the early gloomy predictions were overly pessimistic.

27MHz

There is no getting away from the fact that there is growing dissatisfaction with some aspects of 27MHz CB

as it is at the moment. The majority of complaints centre around wallies and bucketmouths, either licensed or unlicensed, deliberate interference and bleedover from linear amplifiers. There is increasing protest at the authorities happily collecting licence fees and apparently reluctant to do anything about these evils.

Although some groups have even gone to the lengths of direction-finding offenders and passing on precise identifications and addresses to the authorities, there has been no real effort to bring the force of law on this disruptive element.

In the end, people will make the most effective protest they can and simply refuse to buy or renew a licence. The resentment and frustration behind this move is understandable but, unfortunately, this in turn adds to the vicious circle as it puts even less money in the coffers for interference tracing and investigation. Regrettably, it also enables the authorities to be more disparaging about the responsibility of breakers. However, the next year's licence figures will tell the tale. One thing is sure - the coming year is likely to bring increasing resentment at Home Office attitudes and a push for changes to be made.

Alternatives

Next year the most pressure is likely to come from bodies like NATCOLCIBAR and similar groups for:

- a) a European standard and its acceptance in UK, or
- b) the introduction of a more liberal system in the UK independent of a European specification

and the possible combination of the two. The indications at the end of 1982 were that a CEPT decision or recommendation was due early in '83. There is no news of it yet but there will be considerable effort to get the British Government to accept the recommendations, in line with their stated intention. If the problems of acceptance are overcome, the major problem will be manufacturing. Manufacturers around the world, rightly or wrongly, feel that they have been let down by British CB and may well be reluctant to commit themselves to yet another system in Europe.

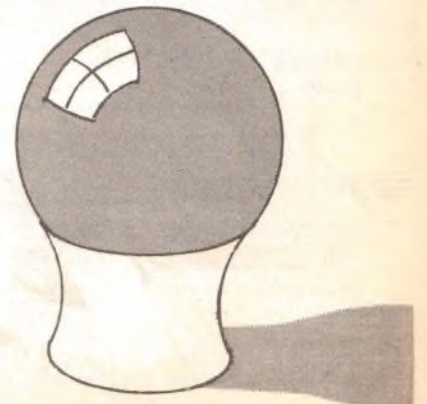
And?

Several other things for 1983 come to mind. The emergency monitoring services seem to be in a period of change, which is only to be expected after the somewhat traumatic events of the first year of legal CB. Hopefully, an element of understanding on both sides will help smooth this transition period. Although all monitoring groups work very hard to offer the best service they can, it seems likely that, in the end, only one will be accepted nationally as the UK monitoring group. It would do both the breaker and the monitoring groups great harm if it were to become a bloody battle.

Another thing devoutly hoped for by 99% of the breaking population is that the improvement on the channels carries on into the new year. If this is the case then the image of CB and its popularity will improve - not only making CB more useful to the ordinary breaker but also to the disabled and housebound.

Whether there will be any major developments on the product scene is difficult to gauge. Although breakers and some retailers are talking confidently of the next generation sets, the manufacturers and marketers of CB equipment are going to be very wary of putting further money and development into something they are not sure of on a long-term basis.

Of course, it's anyone's guess what the coming year will bring. Everyone has their own particular hopes for CB and its future but there's no reason why this time next year we shouldn't be congratulating ourselves on a really good 1983.



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Amateur radio – an introduction

Q and A session

How many radio amateurs are there?

The total number of licensed radio operators (covering both Class A and B licences) in the UK is approximately 30,000; the world total is around one million. In any area with a sizeable population there will usually be active radio operators and quite likely a club for enthusiasts. Major conurbations like London or Manchester will have hundreds of amateurs and several clubs in the surrounding suburbs.

How busy are the amateur radio frequencies?

Since many of the amateur radio frequencies are international and time zones across the world vary, there is nearly always something going on. Even if one band is unusually quiet, there will be some activity on another wavelength. Of course, the amount of 'traffic' on a frequency will also depend on atmospheric conditions and other governing factors.

How necessary is it to learn Morse code?

It's not necessary to learn or pass a Morse test if a Class B sound licence is required. (A Class B licence permits operation above 144MHz or 2 metres). It is required for a Class A licence which allows operation on amateur frequencies from 1.8MHz to 10,450MHz (160 metres to 3 centimetres). The Class B licence does effectively restrict the range of operation and limits the type of contacts that can be made.

It really depends on where your sphere of interest lies in radio. Many operators are content to stay with a Class B licence, whilst others regard it as a stepping stone to a Class A. Learning Morse is time consuming and painstaking but is usually a matter of practice rather than difficulty.

Is it expensive to set up a station?

Last month's article featured a selection of new amateur radio equipment – which is quite expensive. However, for the newcomer, secondhand or surplus military, professional and industrial equipment is available. (Although the availability of surplus equipment has dropped over the past years). Secondhand equipment is invariably advertised in radio magazines and can be particularly good value if in good condition. One hundred pounds might buy an older 2-metre transceiver and £250 a newer secondhand model or basic new set. Three hundred pounds upwards could buy a secondhand station outfit of transmitter and receiver or transceiver for the longer wavelengths.

As with any hobby, there is probably no limit to what could be spent. However, most people, as with CB, start off with what they can afford and add to it as more cash becomes available.

Many amateur radio shops offer credit terms or accept credit cards for purchases.

Lots of amateurs enjoy building equipment and there are plenty of magazines and books with circuit diagrams and constructional information. This can make equipment very much cheaper.

What does SWL mean?

This stands for short wave listening or listener. Many radio enthusiasts are 'eavesdroppers' only and restrict their hobby to listening to short wave broadcasting and amateur frequencies. They particularly listen for stations at great distances or unusual and rare stations and also help with experimental work when they report on receivers, auxiliaries and aeriols.

SWL's can often belong to local clubs and have their own QSL and reporting cards. The RSGB issues numbers to SWL members. These numbers are preceded by BRS, British Listening Station and indicate that the report comes from a regular and experienced listener.

Are there antenna restrictions in the same way as CB?

There are no physical restrictions on antenna type and height. Amateur radio operators are free to use the most efficient aerial suitable for the frequency.

Some antennas are suitable for loft or inside installation, although ideally this isn't the best location since it can reduce the strength of both transmitted and received signals. The most suitable place for an antenna is outside and as high as possible. Permission may be needed from local authorities for erecting an aerial and enquiries should be made at a local council office.

If permission is granted for an antenna to be mounted on a rooftop or mast then it is wise to ensure that it is safely attached. It is a good idea to take out insurance against damage or injury caused by a falling antenna.

Antenna design has been greatly influenced by the amateur radio experimenter. Many operators today use home brew antennas rather than commercial products and some amateurs get exceptional results using very low power but extremely efficient antennas of their own design.

What about the RAE (Radio Amateurs' Examination)?

Evening classes are often run at local colleges of further or high education and start at the beginning of the academic year. They usually run for 20 weeks with weekly attendance and costs are typical of those for evening classes.

Acceptance at evening classes is at the discretion of the college concerned but there are no specific

Amateur radio – an introduction

educational requirements.

Correspondence courses are also available and some amateur radio clubs may also run classes, especially in Morse.

Certificates are given to those who pass both sections of the exam (Licensing Conditions and Transmitter Interference and Operating Practices, Procedures and Theory). Certificates are graded Distinction, Credit, Pass or Fail.

The RAE is held in December and May. Applications must be received before 15 October and 15 February. More than 60% of candidates pass.

What equipment is essential?

Apart from the obvious comments of transceiver, microphone, antenna and power supply, it is a requirement of the amateur radio licence that the operator should use a satisfactory method of frequency stabilization in the transmitting equipment and have equipment capable of verifying that the transmitting apparatus is operating within the authorized frequency band.

Most commercial equipment sold these days have built-in crystal-controlled frequency-checking systems – then it would only be necessary to have an absorption wavemeter to confirm stability. With 'home brew' equipment, it is best to have both an absorption wavemeter and a wavemeter based on a crystal oscillator.

What equipment is desirable but not essential?

Useful equipment would include:

- A VSWR meter. Some modern equipment have built-in VSWR and RF power meters but they are useful, particularly if much antenna work is done.
- A multimeter for measuring ac and dc voltage, current and resistance.
- An oscilloscope. This is really a luxury item but can be picked up fairly cheaply second hand. Particularly useful for construction work.
- A digital frequency counter.
- An RF power amplifier.

What do amateur radio operators talk about?

It's true to say that conversation on the amateur frequencies is more formal than CB and often concentrates on technical subjects. The regulations forbid transmissions of a political, religious or advertising nature or anything of an obscene nature. Music playing is also prohibited. Local conversations may be more topical than long-distance copies as these tend to consist of equipment, signal reports and information on locations, aeriels, weather conditions, etc. Networks are popular.

Apart from the restrictions listed and the natural inclination to talk about one's own equipment, conversation can cover a multitude of subjects. Whilst on the whole users are polite and considerate and follow a 'gentlemanly' tradition, amateur radio has its own brand of 'wallies' and particularly the 2-metre band can be subject to abuse.

Where can amateur equipment be used?

Apart from a convenient corner of the living room or radio 'shack', a station may be operated in a vehicle (not public service or aircraft) or in any vessel. It cannot be used within an estuary, dock or harbour unless an Amateur Maritime Mobile Licence is held. This is a special extension to a Class A licence and a suffix MM is added to show mobile maritime operation whilst under way or MA when static.

Operation is permitted on almost all inland waterways and 'pedestrian' (portable equipment carried and used whilst walking about).

The suffix M is added to a call sign to denote mobile operation (e.g., in a car). A is added to show the station is being operated at temporary premises. P is used for pedestrian operation.

Further information

How to Become a Radio Amateur. Available on request from the Home Office Radio Regulatory Department Licensing Branch (Amateur Radio), Waterloo Bridge House, Waterloo Road, London SE1 8UA. Sample licences are also available.

Sample RA Examinations and Syllabus. Available from The City and Guilds of London Institute, 76 Portland Place, London W1N 4AA. A fee is charged for this service.

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Amplified microphone with slide volume control and Roger Beep feature from Sirtel.

Roger Beep feature clearly informs other party that the conversation is ended. Sound signal is activated by releasing the push to talk switch, duration of signal can also be controlled by the PTT button. In the event of power failure, the DM313P power mike can be used as a standard dynamic microphone. Indicator lamp shows 'on air' and battery consumption conditions.

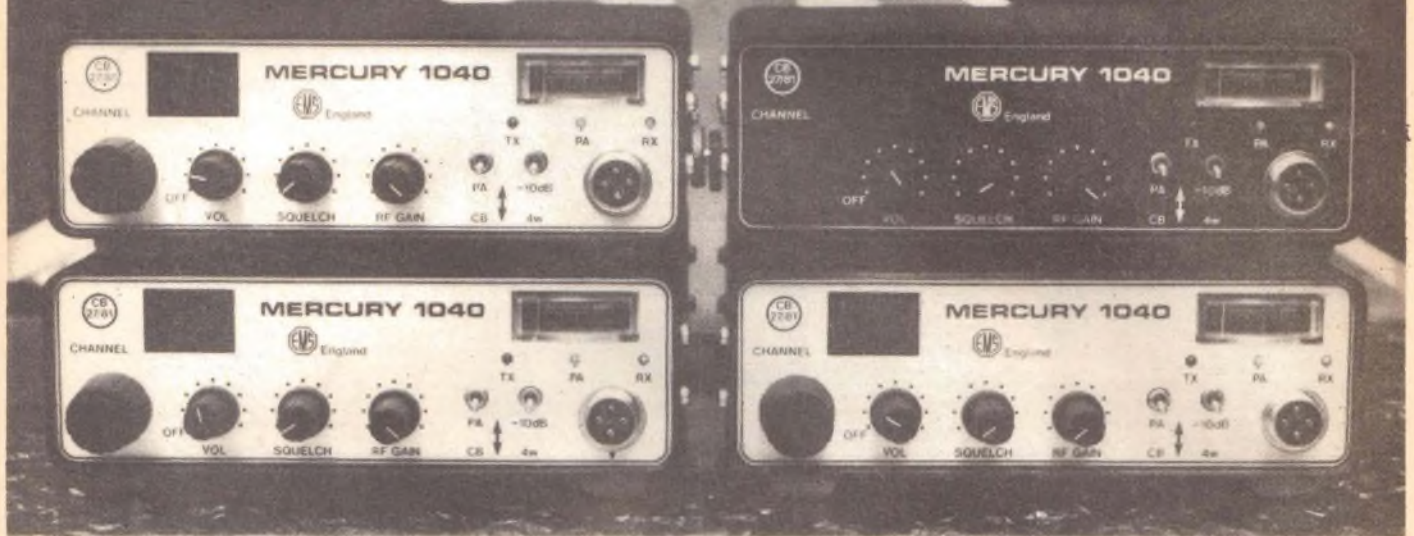
Output level -35dB, Frequency Reponse 300 - 6000Hz.

For performance, quality and reliability, Sirtel is the No. 1 equipment for the serious CB user.

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EM Mercury transceivers



A British rig has actually made it to the production stage

Electro-Medical Supplies (Greenham) Ltd. have been manufacturing high-quality electronic equipment for surgery and physiotherapy for over 50 years, using technology not too far removed from that used in the manufacture of 27MHz CB radio equipment. More recently, though, they have been devoting a great deal of their time to producing a 27MHz CB radio transceiver, built to the same high standards as their medical equipment.

In order to justify the time and money spent on this project, EMS carried out a survey to ensure that their product was marketable. From this survey, which involved more than 100 CB shops, they were satisfied that the demand existed and the wheels were set in motion.

Self contained

EMS handle every stage in the design and manufacture of their products at their factory in Wantage, in order to keep tight control over quality. Even the metal casings are produced 'in house' and are finished in a tough stove enamel.

Careful design of the circuit board has ensured that the Mercury 1040 transceiver performs to the highest standards permitted under MPT 1320. In order to achieve this aim, the virtually-standard 7137 PLL (phase locked loop) chip has not been employed but has been replaced by a more efficient chip using three crystals instead of the usual two. The advantages of this are improved adjacent channel rejection and frequency stability. A brief look inside the rig will reveal a

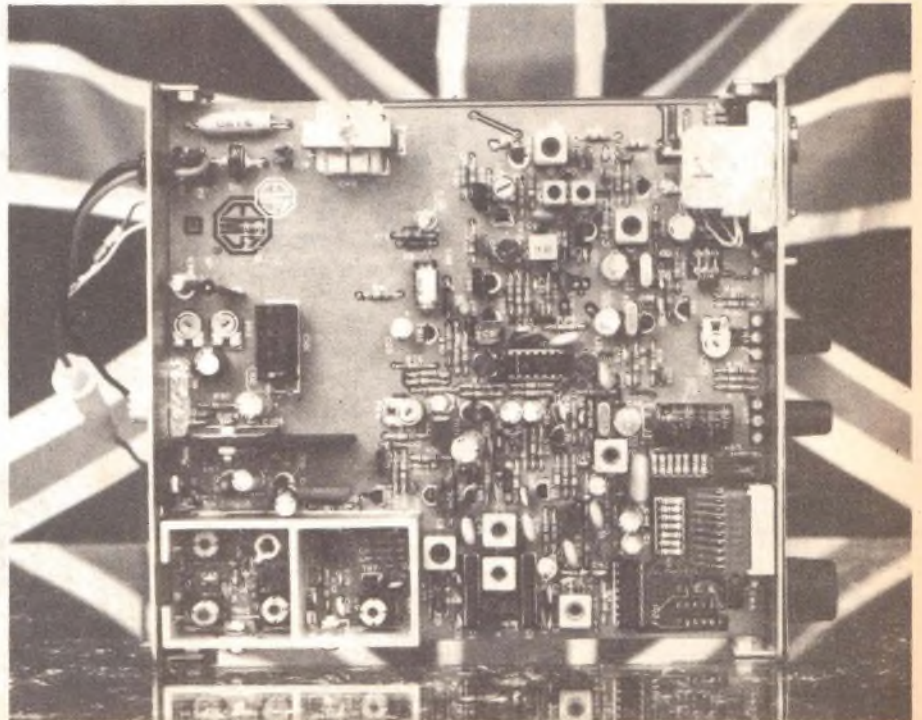
pleasing lack of loose wires (some other sets look as though they are trying to impersonate birds' nests) and a neatly arranged pattern of components. This leads to easier tuning and servicing in the event of a fault. On the subject of servicing, EMS have a full back-up and spares facility to cope with any complaints, should they arise.

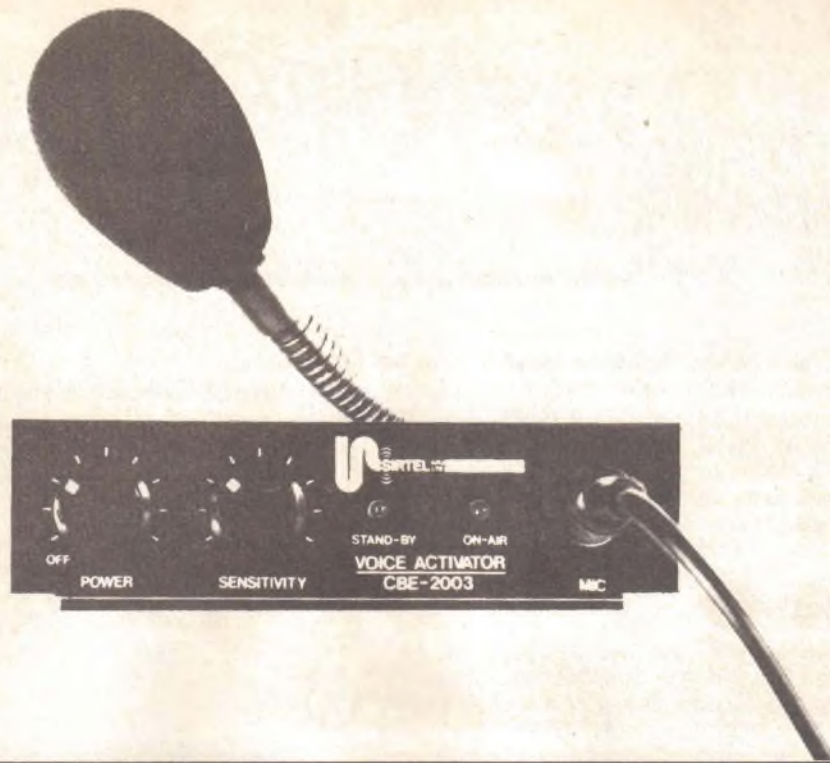
Up market

It is quite obvious that a transceiver

built to these standards is not likely to be cheap and, although a retail price has not been decided upon yet, it will be appreciably higher than rig prices at present. By way of a bonus, though, the Mercury 1040 is available in six colour combinations so that it will look equally at home mounted under the dashboard in a Mini or a Rolls-Royce.

The Mercury 1040 will be the subject of a rig test next month, so you will be able to see for yourselves how the British transceiver performs.





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Junior Breakers

If you are new to CB, CB Radio Magazine and Junior Breakers and aged between seven and 14 then no doubt you've had a rig for Christmas and you're trying to find out all about it. If that's the case then welcome to all three but particularly to Junior Breakers, as this page is produced for you. If you have got any problems with installing your rig then have a look at Back to Basics, an article in this month's magazine on how to install CB equipment.

Weather or not?

About this time of year, the weather can be very bad, which makes travelling around by car fairly hazardous, particularly if there is snow and ice about. With that in mind, please keep clear of any channels being used for traffic reports or weather conditions. Steven Pratt, a prizewinner from last year's CB Radio Show, although only 12, helped motorists a lot by giving reports on conditions in the Oxford area last winter, which was particularly harsh in some places.

Whilst talking to Steven recently, I asked him for his views on the complaints made about younger breakers. Steven said that he realized that young breakers did mess about but blaming them totally was a bit unfair since just as many older breakers misbehaved on channel too. In his opinion, it's up to other young breakers to sort out their friends – not with fisticuffs but by giving a better example and showing what is acceptable and what isn't.

Steven thinks it's a bit of a waste of CB if you only muck about, since it has so many useful aspects. His last words were "If you get a rig for Christmas then don't mess about". Steven certainly gives a good example! Incidentally, he doesn't think much of the idea of children's channels – do you agree or disagree?

A night out

Meeting other breakers of similar age and interests isn't always easy if you are young. Although you might talk to people on channel or know school friends who are also breakers, it's nice to meet new people, especially if you have already chatted on channel. The trouble is many breakers' clubs are held in pubs or clubs that are licensed premises – which means there are legal restrictions on age and who is allowed in.

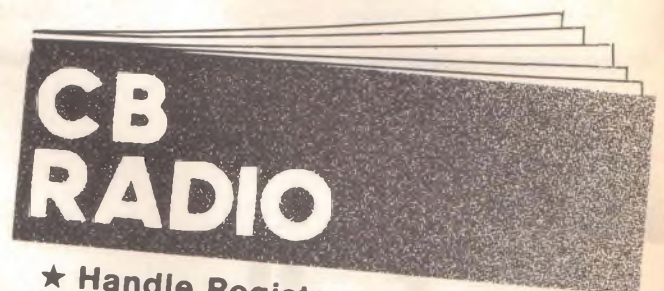
Can you recommend a club that's particularly good for young breakers and meets their needs? It needn't be a special club intended for kids only (although it can be) – it could be a breakers' club that has a special section or just has a good crowd of younger CB'ers. If you do know of one then write in and we'll do a kind of Junior Club Spot. Make sure you include club name, address and night and time

of meeting!

Junior Breakers' Club

To join Junior Breakers' Club, send a cheque or postal order for £1.49 (made payable to CB Radio Magazine Ltd.) to CB Radio Magazine, Tudor Works, Beaconsfield Road, Hayes, Middlesex UB4 0FL. You must be between 7-14 years old and please include an A4 (or 9in. x 12½in.) self addressed stamped envelope.

In return, we'll send you a certificate, badge and booklet with code breaker.



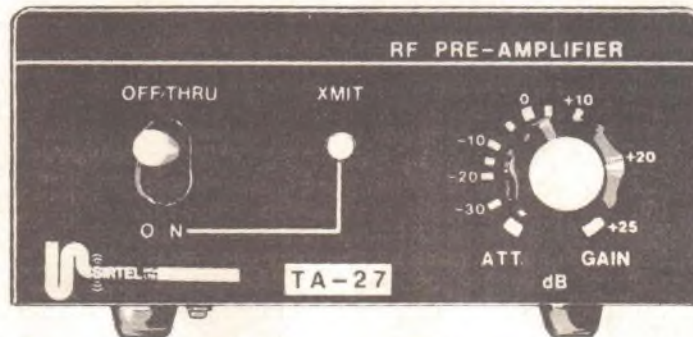
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Code breaker message

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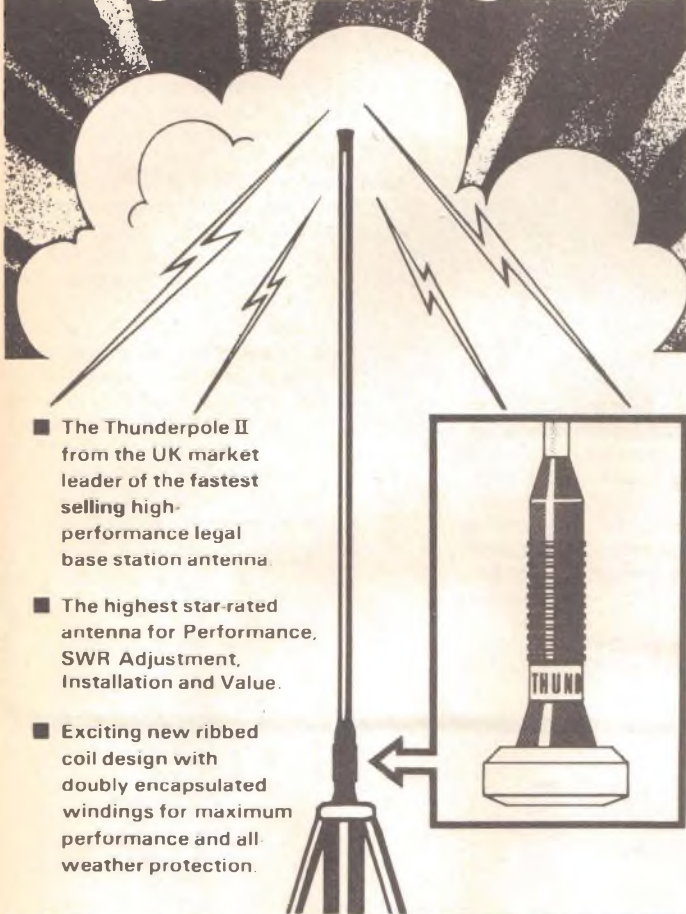
Frequency	27 - 28MHG
Foam of radio wave	AM and FM
Impedence	50Ohm
Gain	Max + 25DB Min - 30DB
Power Source	DC 13.5V Plus/minus 10% minus earth currency
Input power in transmit	Max 30w Min 500mw
VSWR	Less than 1.2
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934MHz

UPDATE

UPDATE

UPDATE

Britain leads the field

Up to a few months ago, the most noticeable thing about 934MHz CB was that there wasn't any, apart from the odd pocket of amateur radio operators or radio enthusiasts who had retuned existing equipment. This situation has improved recently with Reftec releasing sets onto the anticipating market but even now Reftec are only just approaching full production and many early-production sets went out for demonstration and evaluation rather than sale. Consequently there are still very few 934MHz breakers about. Although Reftec can take the credit for being 'first', they are also bearing the brunt of the blame for lack of sets - although it should be pointed out that research and development of a new technology doesn't come easily or cheaply.

It does look as if things might improve in the near future as three other companies have announced plans to enter the market.

Beeware Ltd. will be marketing sets under the Grandstand brand name and although they will be initially releasing one mobile set, their eventual plans include base stations and a range of antennas. The price for the mobile set is expected to be £199.95 and £289.95 for the first base station. The sets will be made in Britain.

Also made in Britain will be the Atmos. Developed and manufactured by AKD, they will be handled by Telecomms, who are very confident about their product. Price for the Atmos is expected to be in the £190 range.

It would also seem that the Far East is beginning to show some interest in this system. At one time it seemed that it would be up to the small British companies to manufacture for 934MHz and although they have taken the initiative the potential of UHF CB has started to appeal to Far Eastern manufacturers anxious for a new market. At least one other British importer and distributor is hoping to have sets available from about £150 - this is for sets made abroad.

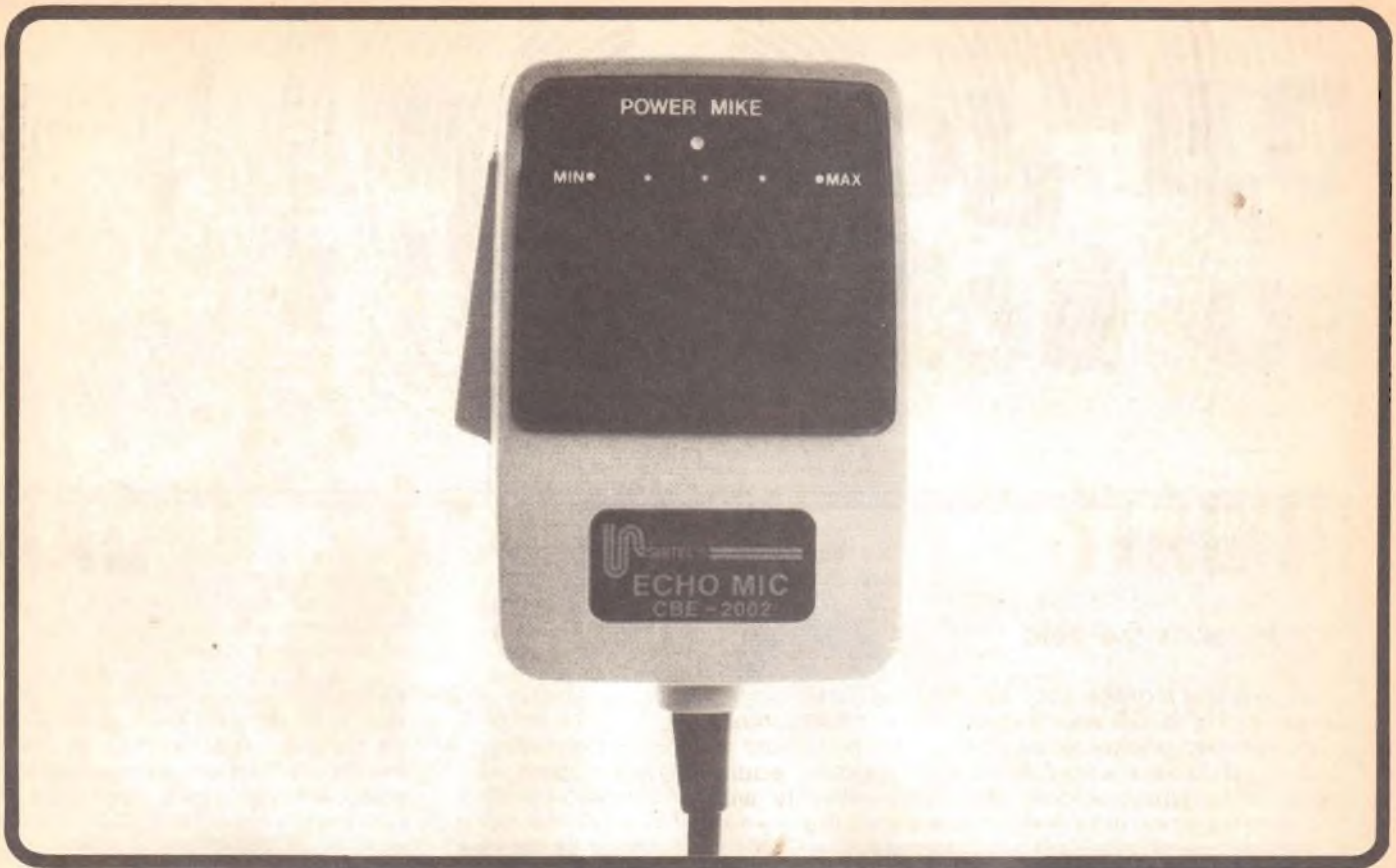
With sets on the market, it won't be long before the accessory manufacturers get going and gadgets start appearing on the market. Some of the accessories available now for 27MHz are unlikely to be attractive to 934MHz breakers, especially echo boxes and similar 'fun' things but sel. call and other more businesslike accessories could be popular for serious 934MHz users.

Reftec, in particular, is concentrating a lot of effort into antenna design and development. UHF CB is free from the petty antenna restrictions that plague 27MHz and there are no barriers to marketing an antenna which is very effective and, since 934MHz antennas are small, very compact.

The major problem for 934MHz CB at the moment is finding someone to talk to. With Reftec sets in short supply and the other companies only just announcing plans and releasing a few sets from an initial batch, there are no concentrated areas of 934MHz users. Sales may be initially slow since people may need a bit more time before committing themselves to a set that is comparatively expensive. To help readers of ours who do have 934MHz equipment and are suffering from loneliness, we are starting a contact spot where we will list users by their names, handles and areas. (We won't be listing full addresses; there are a lot of funny people about!) Hopefully, this will indicate other users in your area - which will give you someone to talk to and maybe someone who has had a bit more experience in operating 934MHz sets and is able to help with any technical problems. So, as well as using your mike, use your pen and send in your name, area and any tips you might have on 934MHz operation.

934MHz Contact List

The first person to head the list is Mr. C. Forrister (no handle known), of Romford, Essex. He is eager to contact anyone else with 934MHz equipment.



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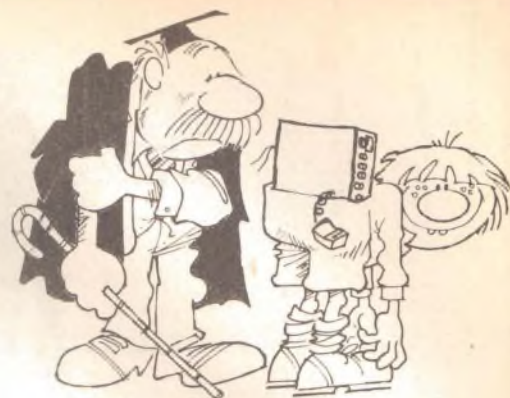
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CB goes to school



Breaker Profile No. 3

Flicking through the channels in the north London area will produce the usual sorts of CB conversation. Channels will be busy with chats, wind-ups, arrangements being made – and, during term time, discussions on the Marxist view of crime and statistics on the population rate of the Third World. If confused listeners hang on long enough, they'll find out the discussion is by Open University students studying the same courses and conferring over their current work.

Listen near school exam time and you could hear tutorials in biology, French, maths and English for O level students as well.

Both of these schemes are the work of Nigel Lamb, OU student, broadcaster and breaker and although they have only been operating since the beginning of 1982, they have met with considerable success. Nigel is hoping that the idea will expand and plans a directory for future academic years for people wanting to become involved.

Nigel was born and bred a Londoner but has spent some time in the Midlands and North, where he first came across CB a few months before legalization. Although initially opposed to AM CB (since he was involved in local radio broadcasting and was wary of jeopardizing his job if caught) he eventually threw caution to the winds and went on channel a few months before legalization. With the advent of 2 November 1981, Nigel changed over to FM.

He admits he found CB more fun whilst in the North, since it suffered less from the problems of overcrowding and abuse that typify the London area and these have been drawbacks to the tutorial scheme on channel. Congestion and deliberate interference always poses a problem but gets worse during school holidays.

Nigel admits his first experience of CB was difficult for him. Used to broadcasting as a one-way experience, he was a bit disconcerted by people talking back! On returning to London, he stayed with FM CB to make friends in a new area but has not found this 100% successful or effec-

tive because of the congestion and lack of range and his CB is now used almost exclusively for educational purposes. Since he's not a driver, all his CB activity is based at home with a Radiotechnic DNT M40 FM and, obviously, all the study groups consist of home base breakers.

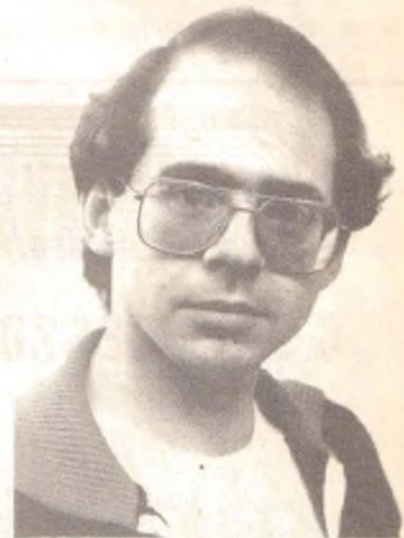
The tutorial sessions are not really planned in advance but happen as needed, generally about two or three sessions a week. They don't use any particular channels, as they move around as conditions and other breakers dictate. The real worth of this scheme, in Nigel's view, is that it brings together people that are essentially rather isolated to discuss their subjects in a similar way to a normal university or college course. Although two can discuss on the phone, there is no opportunity for a third, fourth or more to join in.

Although Nigel's idea has showed that CB can be used effectively and responsibly, he feels that, ultimately, the future for educational CB and, perhaps, CB itself, lies with 934MHz. Unfortunately, the future for 27MHz is already set, in his opinion, although what 27MHz CB eventually settles down to depends on the people actually left on channel when the novelty wears off for the majority.

Like many other people at the moment, Nigel considers much of the blame to lie with the Home Office for not enforcing regulations. By now it is too late for a token show of force in an attempt to frighten offenders and he thinks a concerted effort resulting in prosecutions is necessary to deter 'would-be wallies'. Bearing that in mind, he emphasizes that CB has only been legal for a year and needs time to stabilize and draw away from the Americanisms that are so culturally and geographically unnecessary for this country.

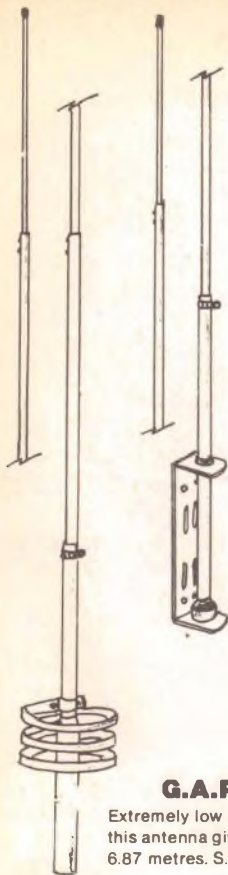
Nigel is obviously keen to expand CB for educational uses and has contributed to the Open University's radio magazine programme with an item about CB as a study aid. In order to increase the range of the tutorial groups, Nigel would like to attract professors, lecturers and already-qualified people to contribute to the discussions.

In general CB terms, Nigel thinks that people going into CB don't consider their motives enough. If they considered why they want CB and what purpose they can put it to, what they hope to get from it and what they can contribute to it as CB doesn't just stop at buying a rig. In personal terms, his biggest distaste is CB clubs since the majority of them, particularly in his area, are too social and have no opportunity for discussion or talks on associated subjects.



The future for this kind of study system extends to disabled and housebound people, who, whilst interested in gaining qualifications or studying a particular interest, are isolated from the rest of the academic world. CB can offer some personal tutorial help to supplement the work and involve the student in a more active participation in the course.

As a professional broadcaster, Nigel has worked for both television and radio and is, perhaps, more in a position to assess the success of CB. Although he has been disappointed by the first year of CB, the full potential has yet to be explored and, in his view, the entertainment-only use will decrease with time.



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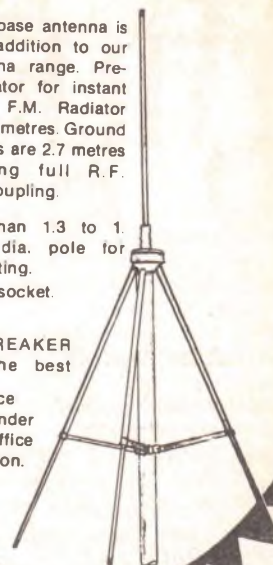
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NEWS REVIEW

After having had nearly two years in which to reveal all the shock, horror and scandal aspects of CB radio, legal or otherwise, it seems that more attention is now being paid by the gentlemen of the press towards the more positive aspects of its operation. One of these positive aspects is the revival of community spirit and public awareness. Examples of this are the cuttings entitled "CB fans will help track hijackers" and "Good buddies rescue pups".

However, CB radio is still being blamed for malfunctions caused by stray RF signals, such as in "Water in milk: CB is blamed" but, as can be ascertained from comments from a Trading Standards Officer in the latter part of the cutting, the excuse is not always believed.

Yorkshire Post

CB fans will help trap hijackers

Citizens' band radio operators are co-operating with the police to trap lorry hijackers. Over 800 drivers have enrolled in a special "vehicle observation corps" to watch out for suspicious activities on the main roads in the South West.

The group has been launched jointly by the Devon police and the Road Haulage Association. The idea is that the police notify the haulage companies of lorries and loads stolen throughout Britain, while the firms use an early warning system to alert their drivers, using CB radios.

Det. Chief Inspector Wilson Blackburne, head of Devon and Cornwall's Crime Prevention Department, said, "With easy motorway access to the South West, lorries hijacked in London or the Midlands could easily be abandoned in our area".

News of the World

Good buddies rescue pups

Kim the Alsatian gave birth to six pups - then decided she wasn't cut out for motherhood. Three pups died four hours later because she wouldn't feed them and the future looked bleak for the others.

Kim's owner, Mrs. Joan Hanks, sent out a call on her CB radio and there were soon eight young 'good buddies' on her doorstep with eyedroppers begged from a local hospital. The youngsters then sat up all night feeding the pups milk with the eye-



A link with the outside world for Jacqueline Moran, of Coppice Drive, Northenden, Manchester, who is disabled. She is seen receiving a CB set from Wythenshawe MP Mr Alf Morris, on behalf of the South Manchester REACT No 2 team which monitors Channel 9 for emergencies by housebound, blind or disabled. On the right is David Lomax from REACT.

droppers.

"They were marvellous," said Mrs. Hanks (Lucky Lady). "Without their help, the pups wouldn't have survived." It was Kim's first litter and the pups were born by Caesarean section. Kim has now accepted the pups, with a little persuasion from Mrs. Hanks and her 16-year-old son, Chris, who owns the dog.

Eastern Daily Press

Police get 'Help' plea via CB set

A CB set was used by a disabled Yorkshireman and his family recently to get help after their Broads cruiser became stranded on a bank at Thorpe.

Wheelchair-bound Mr. Ronald Addison and his family were able to contact Norwich police with the set after their boat broke loose and got stuck on the bank. Police officers went to the rescue and wheeled Mr. Addison across marshland to a police car whilst their colleagues collected the family's possessions. The family were provided with another cruiser to continue their holiday.

Sunday Mail

Private crook catcher

Private eye Ronald Gordon is taking on a coastal crime wave. The Glasgow-based crook catcher is moving into Ardrossan, where one in three people are unemployed and break-ins at shops, clubs and offices have reached a disturbing level.

With a colleague, he will patrol the streets between 10.00pm and 5.00am

in an unmarked car armed with a CB radio and a camera.

"I don't plan on arresting anyone. If I see a break-in or someone acting suspiciously, I will call my office on the CB and from there the police will be alerted," he said.

The response from local businessmen has been so great that he is now forming a company - Green Arrow Services - to spread his detection service along the entire Ayrshire coast.

Northern Echo

Good buddies thanked

CB fans who helped raise more than £1,000 for the families of two firemen

CB veteran

ANCIENT and modern will be combined in a Cornish entry for the RAC London to Brighton run for veteran cars on November 7.

Ancient, of course, is the car, a 1903 De Dion Bouton entered by Mr. Ernie Warmington, a Redruth engineer. Modern is the "optional extra" he has installed in it - citizen's band radio. Mr. Warmington reckons he will have the first CB entry in the run's long history.

The RAC reports that he expects quite a bit of CB encouragement en route, having commented: "No doubt, there will be lots of spectators with rigs on the way, and I am bound to get some encouraging copy."

killed in a crash were rewarded for their efforts by local pop groups who gave them a free night's entertainment at Framwellgate Moor Club, which was also laid on free of charge.

In order to raise the cash, hundreds of breakers took part in a 24-hour talk-in.

CB to combat hijack crimes

LORRY drivers in the South-West are helping police trap hijackers — using Citizen's Band radio when they spot something suspicious.

More than 800 drivers have been enrolled into a special vehicle observer corps launched jointly by Devon and Cornwall Police and the Road Haulage Association to protect millions of £s worth of goods in transit every day.

Western Daily Press CB radios jam alarm system

Two rogue CB radio users are jamming an intercom system linking pensioners with the warden of a Bath sheltered housing estate. Throughout the night, warden Mrs. Margretta Sheridan picks up CB jargon through the intercom on which the 31 elderly residents in Haviland Park rely to call for help.

Residents are also complaining that the CB fans, operating under the call signs of Coffee and Key Man, make it impossible to watch television during the evening because of the interference.

Mrs. Sheridan said, "The people here don't get out very much and they rely on their televisions. Everyone is angry about the situation." A spokesman for the Home Office said that British Telecom would be investigating the matter.

Manchester Evening News Over and out . . .

The first breaker to be prosecuted in Oldham for using an AM transceiver was fined £40 with £15 costs.

The last words 18-year-old Alex Blatchford (Ajax) broadcast were "I'll have to go now, the GPO are at the door", the magistrates were told.

Mr. Roger Beasley, for British Telecom, said that a detector van was sent to the area following complaints of TV interference.

Martin Wainwright sees Citizens' Band settling in as a respectable hobby

CB celebrates its first year

A YEAR has passed since Citizens' Band radio was legalised and the first of today's 340,000 Good Buddies went down to their post offices to buy licences for £10.

Wild prophecies were made of millions of users within months, CB becoming the only growth area of the British economy and the sets being a powerful addition to John Bull's freedoms.

But as the number of licence-holders grew less spectacularly (although steadily, with 100,000 in December, doubling by March and trebling by August), there was talk about the craze that never was.

The CB fraternity is more than content, though, to see the hobby settling down as a generally respectably minority interest. Airwaves are already in danger of becoming congested in places like London, with children and "wallies" (who listen to

other people's conversations and then butt in) taking up a disproportionate amount of space.

The biggest change in the past 12 months has been the decline of the American slang which caused the average layman to abandon the subject in despair. Good buddies, smookey bears and other codewords invented by lorry drivers in the United States are giving way to something more familiar.

"Most people speak in ordinary English, which is a relief," said Mr Paul Cater, editor of CB Radio, which sells 64,000 copies a month. "All the initial publicity gave the impression that CB users spoke gobbledegook and spent their time arranging midnight appointments with other people's wives. But it's not like that."

As expected, the sets have won popularity with people who drive for a living and need warnings about the

weather, accidents or the police. Farmers are turning to them too, and in country areas the radios, which cost anything from £50 to £150, tend to be used for business rather than pleasure.

Enthusiasts point to CB good works, like a set presented to a horse for the handicapped at West Drayton which has led to regular visits from local radio users. Mr Greville Jenner, the Labour MP for Leicester West, has adopted CB as an extra means of keeping in touch with his constituents.

But the interference associated with the main waveband, 27 MHz, persists, and CB has been blamed in accidents like a crash which killed four in Hillingdon, London, when a police car radio was made almost unintelligible by airway traffic. The Home Office reports about 1,000 complaints a week compared with 150 a year before CB became popular.

The worst interference comes from illegal sets which use amplitude modulation (AM) instead of frequency modulation (FM) on the 27 MHz band. The Home Office is hoping for some improvement when the market in the second stage of CB gets going.

This consists of more sophisticated (and expensive) sets with access to the second band reserved for CB, the very high frequency 934 MHz. Twenty channels here are virtually unused in Britain because the Far Eastern sets, which have had a monopoly so far, are 27MHz only.

As a suitable birthday present, production has now begun at RF Technology of Mildenhall, Suffolk, of 934 MHz sets designed and built by the firm's 45 employees.

The full equipment retails at £250, and Mr Jeffrey Smith, managing director, is happily surveying order books which are full for the next three months.

Birmingham Evening Mail

Water in milk: CB is blamed

A dairy company has blamed local breakers for the watering down of its milk in Hereford-Worcester. The company said that CB radio transmissions interfered with their machines' auto-

matic control panel and, as a result, water and cleaning fluid got into the bottles.

Mr. George Gordon, a Hereford-Worcester Trading Standards Officer, described the CB excuse as speculative but there was no evidence that the milk had been deliberately watered down. As a result, the company has not been prosecuted.

CB radios hindered police chase

CITIZEN'S Band radio users severely hampered police during a high-speed car chase which resulted in the deaths of four young men and a policeman, an inquest heard yesterday.

Interference from the radios made it impossible to hear what was being said on the police vehicle radios as they chased a stolen car through Hillingdon, Middx.

As a Rover police car followed the stolen Capri through red traffic lights on the A40 Western Avenue it crashed into the side of a Vauxhall, killing all four occupants, Hammer-smith Coroner's Court was told.

The inquest jury was told the Capri was seen in Long Lane, Hillingdon, travelling at over 100 m.p.h.

Dr John Burton, the coroner,

said: "The whole episode was made more difficult for police because there was constant interference from CB radios."

Tape recording

A tape-recording of what was heard of the chase over the police radio was played to the court. Dr Burton said the recording was "a shambles" because it was impossible to hear what anyone was saying.

Those killed were Michael Bashford, 19, a trainee garage mechanic, of Sanctuary Close, Harefield, Middx, Neil Rogers, 19, a van boy, of Milne Way, Harefield, Gary Evans, 18, an export packer, of Leading Lane, Hayes, Middx, Kerry Holloway, 20, a painter, of Hinchley Close, Harefield, and P.c Robert Mercer, 20, of Long Lane, Hillingdon.

The driver of the police car,

P.c Larry Talbot, 31, of Uxbridge, was the sole survivor of the crash. He is not going to give evidence at the inquest which is expected to last two days.

TACKLING PROBLEM Screening tests

OUR CRIME CORRESPONDENT writes: The Home Office, British Telecom and police are co-operating in trying to overcome the problem of CB users' interference with official transmissions.

The main cause is the use of illegal sets particularly when these are used near highly sensitive relay transmitter stations. Various tests have and are being made to find a system for "screening" the official channels from interference to eliminate or at least reduce it.

Manchester Evening News

CB part 'could have killed'

A power supply intended for use with CB radios could have killed, Stockport magistrates were told recently. In two British Standards tests the unit heated up to over 120° centigrade. The shop that sold the equipment, KB and Company (Fancy Goods) Limited, was fined a total of £1,500 after the unit, which retails for £16.71, was purchased by a Trading Stan-

dards Officer. After being tested by the BSI, the unit was found to have failed to comply with five different regulations.

A spokesman for the BSI said, "These transformers would be used in the home as opposed to a car. There was grave danger of electrocution to anybody touching the unit."

Mr. Ian Huffer, defending the company, said they were a reputable trading firm and that as soon as they were told of the defects they made every effort to recover them at a substantial loss.

When 27MHz went to war

by F. C. Judd

From 3 September, 1939 and for the whole of the five-year period of World War 2, successful function of the air defence of Great Britain was to rely heavily on what we now commonly call radar but which before and during most of the war itself was a closely-guarded top-secret method of detecting the approach of enemy aircraft toward our coastlines. The method was known then either as 'radio location' or 'radio direction finding', abbreviated to RDF. (Radar was a term that came later and stemmed from the USA).

By September 1940, a complete network of 'radio location' (RDF) stations consisting of 22 CH (Chain Home) and 24 CHL (Chain Home Low) had been set up around the eastern coastline from the northern tip of Scotland down to Dover and along the southern coastline from Dover to Carnanton in Cornwall. A small portion of the south west of Wales was also covered (Fig. 1). As well as providing early warning of approaching enemy aircraft, the positional and directional information that could be obtained enabled relatively accurate deployment of our interception aircraft. RDF played a very important role in the Battle of Britain (Ref. 1).



Fig. 1. Distribution of 22 operational CH (Chain Home) radio location stations around the coastline of Great Britain in September 1940. Note the concentration of stations along the east coast linked by the dotted line. The 25 CHL stations were set up along the whole of the same length of coast from the top of Scotland round to the south-west

corner of Wales.

The whole area of both land and sea was divided into lettered squares for aircraft-plotting purposes.

The CH stations shown are as follows:

- | | |
|---------------------|---------------|
| 1. Hillhead | 11. Dawdsey |
| 2. School Hill | 12. Bromley |
| 3. Douglas Wood | 13. Canewdon |
| 4. Drone Hill | 14. Dunkirk |
| 5. Ottercops Moss | 15. Rye |
| 6. Danby Beacon | 16. Pevensey |
| 7. Srenigot | 17. Ventnor |
| 8. West Beckham | 18. Hawks Tor |
| 9. Stoke Holy Cross | 19. Warren |
| 10. High Street | 20. Haycastle |

The evolution and development of RDF

This article is concerned mainly with CH (Chain Home) RDF stations (as in Fig. 1), many of which were the first in operation occupying frequencies within the band 22-30MHz or wavelengths

ineffective. So-called 'death rays' were even thought of with the idea of stopping aircraft engines or killing the pilots but never seriously considered, particularly when it was soon realized that sufficient power, radio or otherwise, to effect even human beings at a distance could not be generated, at least not with the technology of that era (Ref. 1 and 2).

Evolution-wireless echoes

The fact that relatively long wavelength wireless waves were able to travel around the world without too much loss of signal strength was a phenomenon first investigated seriously by two scientists, Kennelly and Heaviside, in 1905 and their findings suggested, quote: "That there is in the upper atmosphere a layer of electricity which is sufficiently conducting to

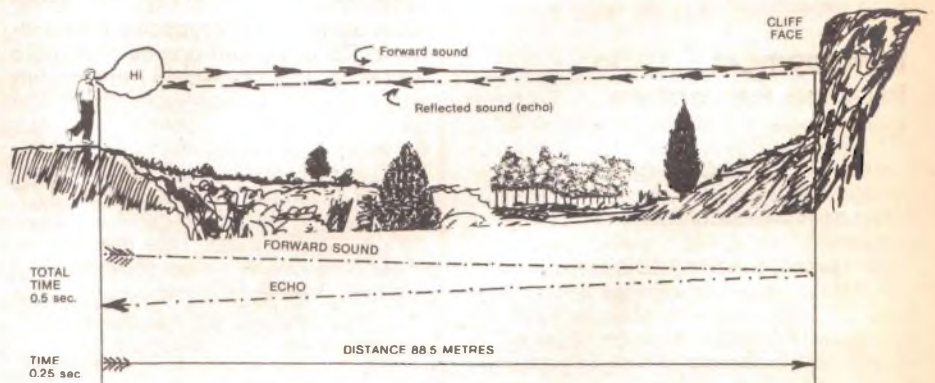


Fig. 2. Analogy of radar. Echo of shout is returned and detected in a time of 0.5 seconds. Distance of cliff face from person is, therefore: 342 metres (speed of sound) x 0.25 = 88.5 metres.

between 13 and 10 metres, at the time war was declared. The CHL or Chain Home Low stations, also operational early in 1940, operated on VHF in the region of 200MHz. The development and use of these stations is another story.

We must, however, go back much further in time in order to deal with the evolution and development of radio location as it was first called but as a point of interest methods other than radio were investigated as a means of detecting aircraft at range. These included the use of infra-red systems for the detection of aircraft engine heat and large acoustic mirrors for aircraft sound location, all of which proved

be a reflector of wireless waves".

Further investigation into the 'reflecting layer' theory was later carried out by Professor E. V. Appleton. In his article, "The Timing of Wireless Echoes," published in *Wireless World*, June 1931, he said: "It was therefore natural to assume that echo signals which were observed, were due to waves reflected from the layer". We know now, of course, that these layers consist of ionized particles capable of efficient reflection when certain conditions are fulfilled. Further experiments by E. V. Appleton and others proved conclusively that the height and variation in the height of these reflecting layers could be determined with a high degree of accuracy, particularly when short pulses of radio waves were transmitted up to them at intervals and which, in turn, allowed the oscilloscope to be used as a dir-

ectly-calibrated display for providing visual measurement of the time interval between a transmitted pulse and reception of its echo from the layer.

E. V. Appleton had almost unknowingly discovered the possibility of obtaining reflected wireless signals or echoes from aircraft at a distance. Since the speed of wireless waves was known, it was realized that the time interval between a transmitted pulse of very short duration and a received echo of this could be directly interpreted as a measure of distance. The question that remained was, could wireless echoes of sufficient strength for positive identification be obtained from fast-moving aircraft at a distance and also flying high above ground?

Analogy of radar

The technicalities of pulse radar itself are somewhat complex but a good analogy can be given. A 'sound' echo can be obtained by shouting at a distant cliff face. The same sound will be heard after a short interval reflected from the cliff face as a distinct echo. Since we know the speed of sound in air as approximately 342 metres per second, an echo heard at, say, half a second after the shout, means that the sound has travelled for a quarter of a second to reach the cliff face or has covered a distance of 342×0.25 or 85.5 metres. The reflection or echo takes another quarter of a second to return to the source of the shout. The diagram and annotations of Fig. 2 will help explain.

Development - radio location was not an invention

Many British scientists, including E. V. Appleton, A. P. Rowe and, notably, Watson-Watt, contributed to the development of pulse radio location (RDF) techniques. In 1935, steps were

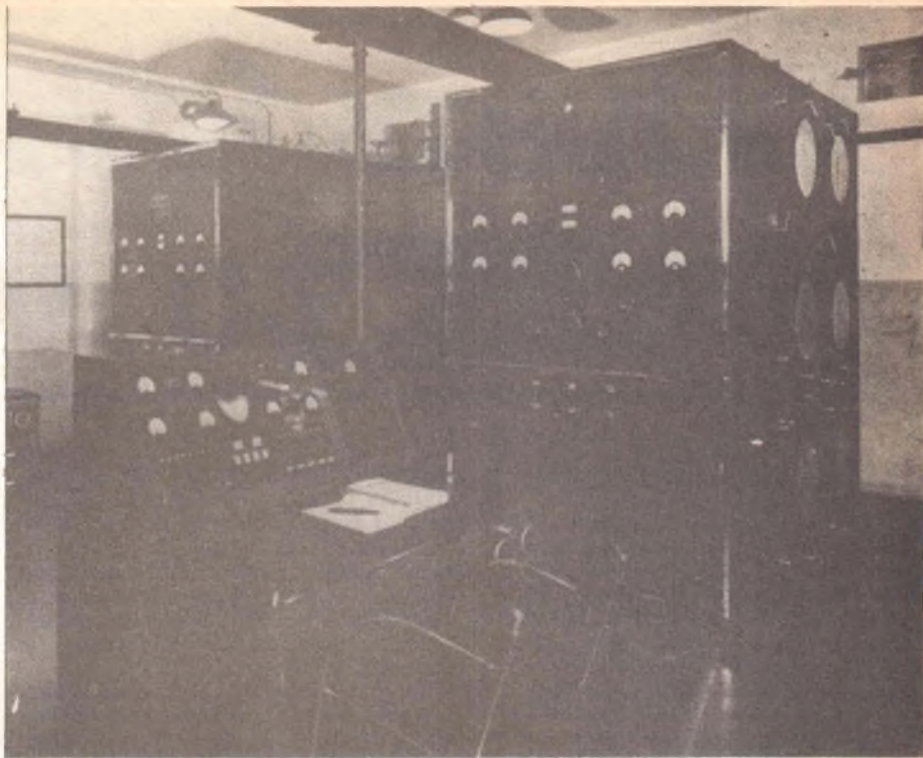


Fig. 4. The transmitter room of an operational CH station. Equipment is duplicated. Copyright. RAF Museum.

taken to set up the first experiments in the detection of aircraft by radio at distance under the supervision of Watson-Watt and a team of scientists and technicians at a location near Orfordness in Suffolk (Ref. 3). Earlier tests using a BBC broadcast transmitter at Daventry had proved that radio waves could be reflected from aircraft and provide an observable indication with instruments located on the ground. By June of that year (1935) and using pulse transmission, an aircraft was followed to a distance of 17 miles and in July a range of 40 miles had been achieved. This meant that objectives could be established with

50 miles as 'helpful', 100 miles as adequate and with a positional and range accuracy of 2-3 miles considered as acceptable or at least useful.

Many possibilities with radio location (RDF) lay ahead however and the Orfordness establishment simply became too small for the enormous amount of research and development and staff required for this, not only to finalize equipment needed for fully-operational RDF coastal stations but also for other applications of 'radar', as we may now call it.

Bawdsey Manor

So, from the marshland of Orfordness the whole research team known locally as 'the Islanders' were moved to the somewhat more exotic but nevertheless more amenable surroundings of Bawdsey Manor, a little further south and near to Felixstowe. It became known as Bawdsey Research Station and began its work in May 1936 but which terminated on 3 September, 1939 although only in the sense that the primary object of setting up a chain of operational radio location (RDF) stations had been accomplished. When these stations had been handed to RAF 60 Group personnel for operation, research and development at Bawdsey continued on numerous radar systems for special applications, some of which were for airborne use and later to play a great part in the bombing raids on Germany and other enemy countries and also on enemy warships at sea.



Fig. 3. Typical aerial system of operational coastal CH radio location station. The three large 350ft. high steel towers carry the transmitting aerials. The

four smaller wooden towers (240ft.) carry the receiving aerials. Copyright. Imperial War Museum.

Continued ...

When 27MHz went to war

CH station equipment

On the final coastal CH stations, the operational buildings containing all the equipment were heavily constructed of concrete and brick and well guarded. The transmitting aerials were mounted on 350ft.-high steel towers whilst the receiving aerials were set up on 240ft.-high wooden towers. All main equipment was duplicated and the waveband use was approximately 15.5-10 metres (22-30MHz). Some technical details of CH (Chain Home) main stations are as follows:

Wavelengths, 13.5-10 metres; Fre-

quency band, 22-30MHz; Power, 200kW (200,000 watts); Pulse duration, 5.8 or 30 milli-seconds; Pulse recurrence rate, 12.5 or 25Hz/sec. interlocked with other stations; Transmitting aerial, 4 or 6 elements and reflectors; Receiving aerial, 2 crossed dipoles with goniometer direction-sensing system.

These stations could provide adequate information concerned with height of aircraft, an estimate of the number of aircraft in a single grouped raid and had a working range of around 100 miles. Echo/distance information was displayed directly on a calibrated 12in.-diameter cathode

tube with long after-glow properties so that the display of echoes remained visual for a short period.

What did a CH station look like (Figs. 3, 4, 5)

From a distance, they were certainly prominent and unmistakable as some sort of radio station, although the Germans eventually discovered their true purpose. The photos and captions attached give a good impression of the size of the aerial systems as well as the transmitting and receiving equipment. Early in 1940, the writer



Fig. 5. An operational CH radio location receiving room and equipment. The WAAF operator at the receiver unit (left) determines direction and distance of enemy aircraft. Relevant information is then passed to command control. Copyright. Imperial War Museum.

was attached to a CH station at West Beckham in Norfolk. The photo (Fig. 6) shows all that remains of that station after now more than 40 years. The photo Fig. 7 shows what is left of a

CHL station at Happisburgh (also in Norfolk) to which the writer was attached at a later time during the war. It was here that special equipment was installed to overcome the

problem of a form of radar jamming perhaps better described as 'radar confusion' and which was caused by (conductive) metal foil strips dropped by enemy aircraft. These foil strips



Fig. 6. All that remains of one wartime CH station - West Beckham in Norfolk. Note: the antenna system in the background is for a VHF local communications service.

(code named Window) produced false radar echoes, often in sufficient numbers to give the impression of a large formation of raiding aircraft in one area whilst the real raid was elsewhere. The special equipment we used proved successful and enabled

true aircraft echoes to be distinguished from pseudo echoes produced by the foil strips. As the photo shows, only the operational building and concrete base supports of the 200ft. aerial mast of Happisburgh CHL station now remain, the building now being used by a local farmer for storing hay, etc.

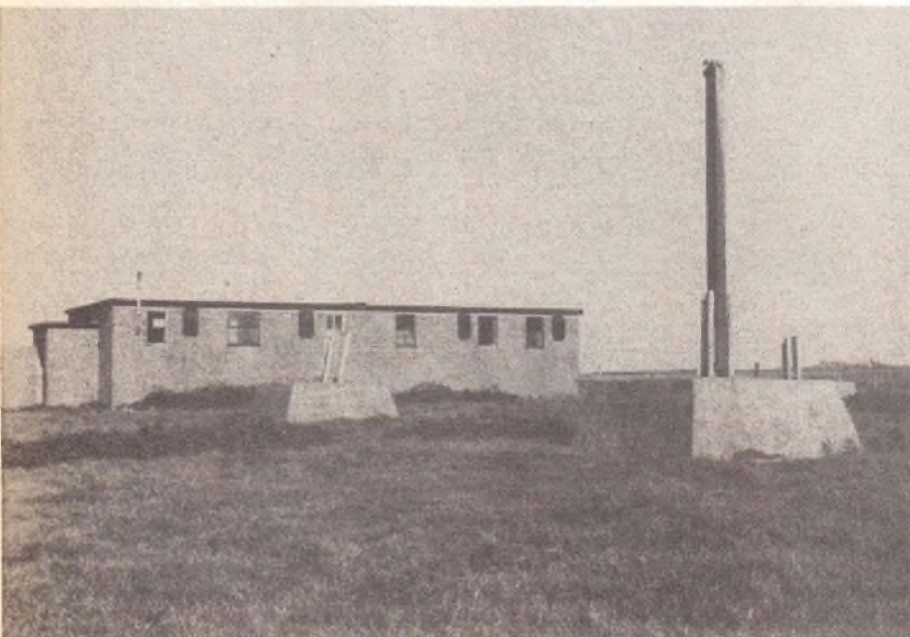


Fig. 7. CHL (Chain Home Low) RDF operated on VHF 200MHz. The building shown in the photo is all that is left of the Happisburgh, Norfolk station to

which the writer was attached for about two years. The concrete bases of the 200ft.-high aerial tower also remain.

Conclusion

CB operators should at least take pride in the knowledge that 27MHz and very adjacent frequencies played a very important part in the air defence of Great Britain between 1939 and 1945. Some of the radar stations were attacked by enemy aircraft and a number of WAAF radar operators and other RAF station personnel lost their lives during the raids. Perhaps this article will serve to remember them, the scientists and engineers who made radar possible and the RAF pilots who put assistance from radar to very good use.

Whilst most of this article has been written from memory, the writer wishes to acknowledge the kind assistance given by the Imperial War Museum and the RAF Museum for photos and information. The references listed are well worth reading and contain considerable detail about the development and use of radar in its different forms during World War 2. Another book that is recommended is 'A History of the Marconi Company', by W. J. Baker (Methuen & Co. Ltd. 1970). It tells the story of the development of radio communication right from the first experiments by scientists such as Maxwell and Hertz and the practical and commercial applications by G. Marconi himself. The book also contains a chapter on World War 2 radar and later developments.

Ref. 1. *Battle Over Britain*, F. K. Mason, 1969. McWirtter Twins Ltd.
 Ref. 2. *Most Secret War*, R. V. Jones, 1979. Hodder and Stoughton.
 Ref. 3. *One Story of Radar*, A. P. Rowe, OBE, Cambridge University Press.

RIG TEST

Colt 355

The Colt 355 is billed as "probably the smallest rig in the world" and claims "to reach parts that other rigs cannot reach". Despite its billing, this Korean rig looks very nice and doesn't behave too badly.

Look out for the matchbox-size rig which will be supplied with a free microscope for volume and squelch adjustment.

Microphone

The Colt 355 microphone is neat in appearance and very easy to operate. It fits snugly into the hand. For connection to the rig it uses a five-pin din plug and not the better lockable four-pin plug: it was found in mobile use that it tended to come adrift if used by the passenger.

Construction

The construction is of the standard two-piece (top and bottom) cover finished in a hard-wearing black-flecked stove enamel paint and was found to have a high resistance to scratching and chipping. The front panel is made of moulded black plastic with white silk-screen lettering. The controls are made of black moulded plastic and are easy to operate. The front panel controls, from left to right, are a four-lamp bar graph, signal strength and power indication and a channel 9 lamp, with a volume/on-off and squelch control underneath. Next is the channel 9 switch, with the channel indicator above. Finally, on the extreme right, is the channel change switch. The high-low power switch is positioned on the back panel, next to the power connector.

The internal construction of the set is rather cramped which could cause problems with servicing but overall a very compactly constructed rig.

Transmitter test

Test equipment available:

Two Racal 9081 signal generators.
Racal 9009 modulation meter.
Racal 9301 milli-voltmeter.
Racal 9917 and 9024 frequency counters.

Marconi TF 2501 RF power meter.
Bird 43 RF power meter with load.
Marconi TF 893 AF power meter.
Marconi TF 2337 distortion meter.
Levell TG 66B audio generator.
Solartron CD 1400 scope.
IE DS 50/2 power supply.

Keithley 130 digital voltmeter.
Hewlett Packard spectrum analyser.

Transmitter output test

Power Output and Attenuation			
Atten.	10.8V	13.8V	14.8V
High	2.2W	3.8W	3.8W
Low	.05W	0.5W	0.75W

This test is done to ensure the power output from the rig conforms to Home Office specification MPT 1320.

The results show that on high power the rig conforms very well but on low power the output was found to be slightly high.

Frequency

This test is done at two different temperatures, 48°F and 68°F, to check the frequency stability of the rig with changes in temperature.

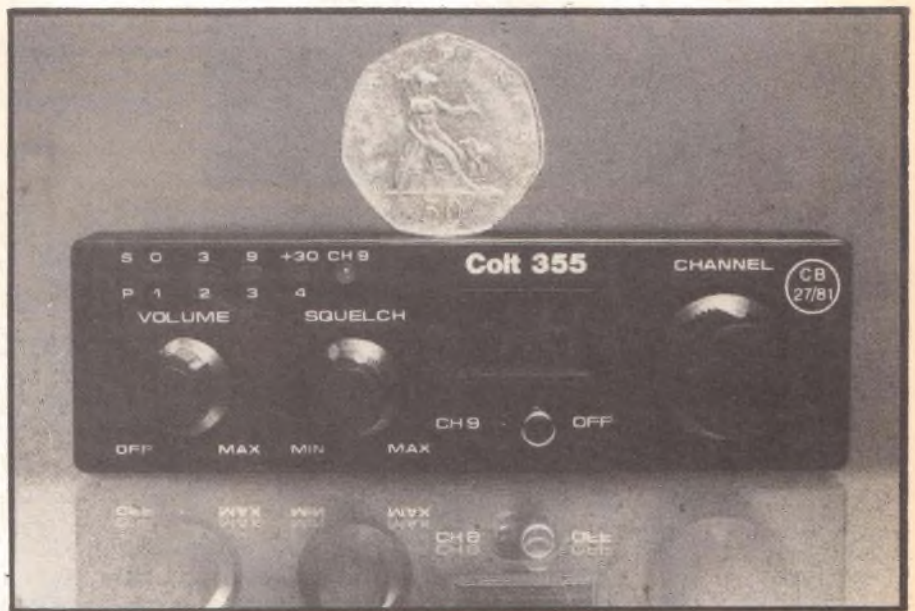
near the point where reception distortion could happen.

Modulation

The modulation tests are done to check the ability of the rig to give good modulation level and quality over a range of varying input conditions.

From the results we can see that the modulation circuit is not very sensitive but at the mid-levels appears to give sufficient deviation. The only point to mention is if this rig is fitted with a power microphone it would over modulate.

Input Level	Input Frequency		
	300Hz	1183Hz	2500Hz
0.6mV	0.6mV	.05kHz	0.2kHz
2.5mV	2.5mV	0.3kHz	0.8kHz
6.0mV	6.0mV	0.7kHz	1.3kHz
25mV	25mV	1.7kHz	1.5kHz
60mV	60mV	2.2kHz	1.7kHz
250mV	250mV	2.9kHz	2.0kHz



Temperature stability

Temp.	CH1	CH20	CH40
Should be	27.60125	27.79125	27.99125
48°F	27.60060	27.79061	27.99060
68°F	27.60067	27.79072	27.99068

The results show a below-average reading at both temperatures, the worst measurement being 650 cycles low. These measurements are getting

Receiver tests

Squelch level

The squelch threshold was measured at .26 microvolts and 850 microvolts fully muted. The squelch operation was very satisfactory and most unwanted signals could be squelched out.

Audio output

This test is done to check the

Colt 355

speech quality given out of the rig's receive audio stage. To do this we feed into the antenna socket a carrier modulated by a 1,000-cycle tone using a Racal 9002 RF synthesized signal generator.

Measured Distortion

1 watt	3% distortion
2 watts	5.5% distortion
3 watts	24% distortion

The results of this test are better than those taken from previous tests but we are still waiting to see a rig which gives at 3 watts a distortion figure of less than 5%.

Receiver sensitivity

This test is done to check the sensitivity (the ability of the rig to pull in weak stations) of the receiver.

Sensitivity

10dB quieting	0.23uV
20dB quieting	0.43uV
30dB quieting	2.80uV

From the above we can see that the receiver sensitivity is fairly average which means that although the rig is

very small the receiver sensitivity matches that of many of the larger rigs.

AM rejection

The AM rejection of this rig was 26dB, which is below average overall but is an average result compared to all the rigs in the lower price bracket which we have tested.

Adjacent channel rejection

This test is done to measure the rig's resistance to bleedover by other stations in the locality. We take a measurement by receiving a signal on channel 20 and then introduce a second transmitted signal first on channel 19 and 20 to check filter band width and then on channels 1 and 40 to check for receiver desence.

Adjacent Channel Rejection

CH1	CH9	CH11	CH40
15mV	800uV	850uV	20mV

The results of this test were good. The adjacent figures for channel 19 and 21 show that this rig has a high resistance to adjacent channel inter-

ference and the high figures for channel 1 and 40 show that the rig will not suffer too badly from bleedover.

S meter reading

This test is done to check at what level a receive signal needs to be to give a nine-pound reading on the meter.

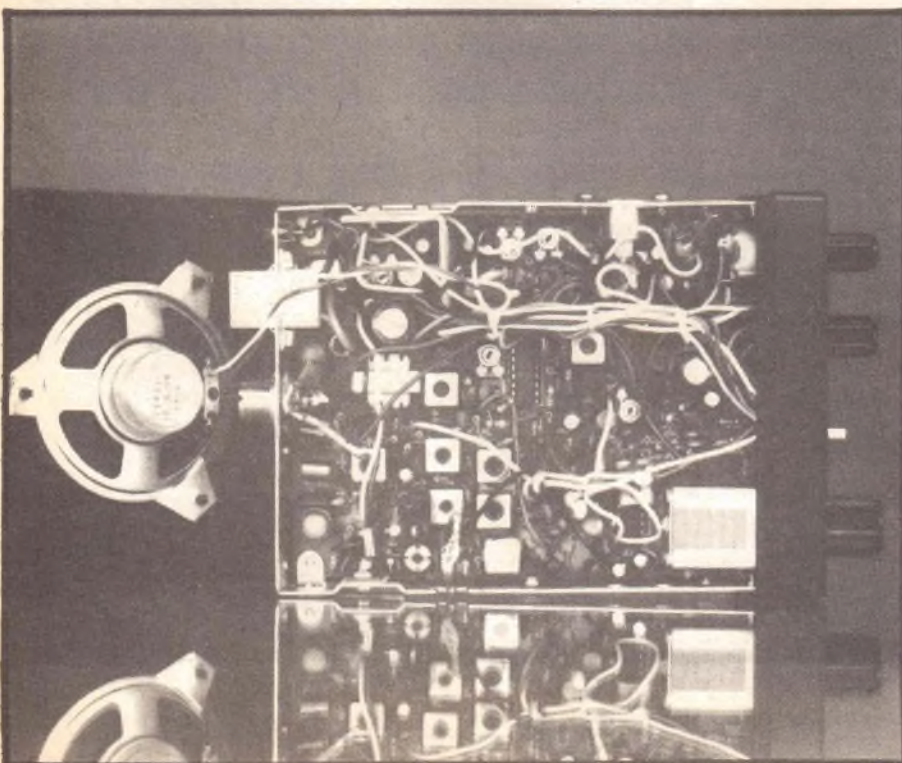
S Meter Reading

0	1.8uV
3	40uV
9	100uV
+30	180uV

An accepted level for a nine-pound signal is 10 microvolts.

Summary

The Colt 355 UK is a very neat and presentable rig. It is unfortunate that a smaller type of microphone plug and socket could not have been fitted to the front of the rig then the size of the rig would be an advantage but with the microphone plug protruding out of the side it still takes up the same amount of width as a normal-size set. The rig comes complete with a comprehensive instruction/service manual.



RIG TEST

THE 1983 CB RADIO DIARY

IDEAL FOR ANY BREAKER

How to be an emergency monitor, how CB has evolved over the years, what the

codes mean and how to cure interference. All this information – plus much more – can be found in the 1983 CB Radio Diary.

Order your copy now for just £2.50 inc. p&p.

★ INCLUDES A FREE COMPETITION TO WIN A RIG ★



Send me _____ 1983 CB Radio Diaries at £2.50 each including p&p. I enclose a cheque/PO for £ _____ payable to CB Radio Magazine Ltd., Tudor Works, Beaconsfield Road, Hayes, Middx. UB4 0FL.

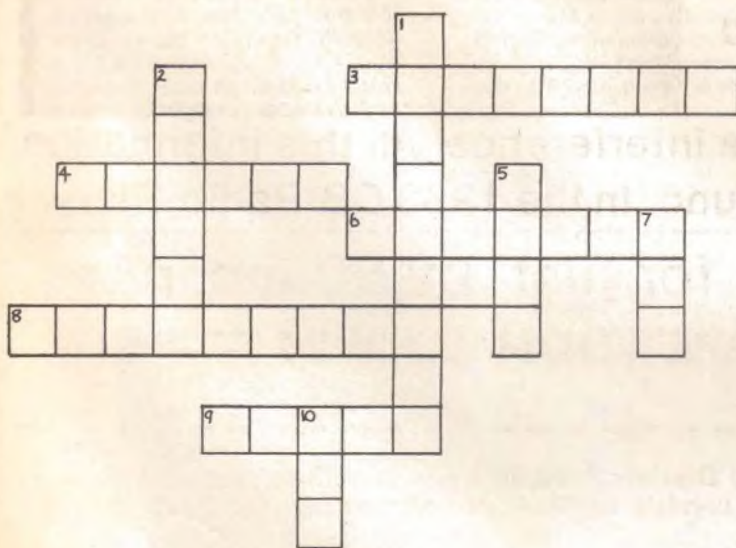
My name and address is _____

WIN

A GOLD-PLATED Z27

Two lucky people can win a gold-plated Z27 aerial each by entering this month's fiendish competition. The prizes are worth nearly £100 each and are unique. Only two of these aerials have been gold plated and are going to be sought after as collectors' items.

The winners of this competition will be the two people who, in the opinion of the judges, correctly complete the following crossword *and* in no more than 25 words explain why the Z27 is the fastest selling antenna in the UK. Entry is restricted to one per person and answers must be in our offices on or before *10 January, 1983*.



CLUES

Across

- 3 CB breaking channel (8).
- 4 Name to hold (6).
- 6 First CB magazine (2, 5).
- 8 Top breed of horse (9).
- 9 Official yellow bird (5).

Down

- 1 CB friend (4, 5).
- 2 Extra wattage (6).
- 5 Mara (anag.), king of Thailand (4).
- 7 # 1 importer (3).
- 10 Twenty-sixth letter of the alphabet. This letter has one more (makes a great antenna) (3).

Once you have completed the crossword, transfer your answers to a postcard then write your explanation on the same card (don't forget your name and address). The postcard must be sent to CB Radio Magazine, Tudor Works, Beaconsfield Road, Hayes, Middx. UB4 0FL.

Round Up

Care Convoy

Some months ago, we featured the CB Care Convoy, a charitable convoy organized to raise money and publicity for the National Foster Care Association. Up to 12 cars were involved in covering the country during the period 15-23 May, 1982.

With the support of the United Breakers' Association, many other breakers, clubs and members of the NFCA, many events were organized to meet the cars as they reached towns across the country.

The convoy was very well publicized, attracted a lot of attention to the Association's aims and generated a lot of interest from prospective foster parents and also raised over £22,000. Unfortunately, because of unexpectedly high costs and expenses, the Association has not benefited as much as it could, although they are very happy with the publicity they have received and the relationship they have made with breakers.

If anyone would like to send a donation, however small, to make up this rather disappointing end to a terrific effort, please send it to the NFCA, Francis House, Francis Street, London SW1P 1DE.



CARE CONVOY
15-23 MAY 1982
NATIONAL FOSTER CARE

Fidelity wins contract with BT

Fidelity Radio, a London-based manufacturer and supplier of consumer electronics products, including CB, has been given British Telecom's first order for cordless telephones. The initial order is worth over £1 million and covers the design, development and supply of the cordless tele-

phone system.

Technical Director of Fidelity Radio, Mr. Robert Dickman, said they were delighted to have been selected for the contract and that their selection is a recognition of their design and manufacturing skills.

In accordance with the newly-released specification, the Fidelity remote phone will be lightweight and portable and have a range of up to 200 metres from the base unit. Full duplex facilities will be provided allowing a two-way conversation to be carried out without having to press a PTT switch. Push-button dialling and re-dial facilities will also be featured.

CB radio for the handicapped

Early in 1982, it was concluded by the staff of the Castle Priory College, Wallingford, Oxfordshire, that a course about "CB Radio and the Handicapped" would be of considerable interest to staff in residential centres and field workers concerned with housebound handicapped people, as well as local CB clubs whose members may wish to help handicapped persons in their areas.

Preliminary enquiries led to such an overwhelming response that a conference was planned for 30 October to

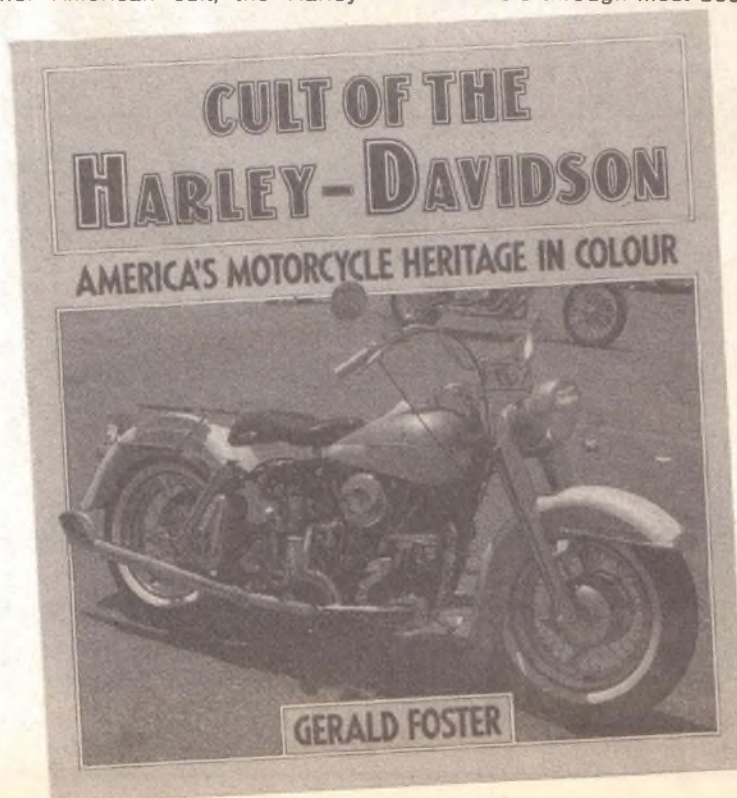
Cult of the Harley-Davidson

CB has always been associated with the American truckers, characters who are often portrayed as cowboys of the road and who take more pride in the appearance of their trucks than the majority of private car owners both sides of the Atlantic.

A similar affection for polished chrome and sheer power is shared by another American cult, the Harley-

Davidson owners. A tough breed who adorn themselves in heavy denim and tattoos and share the CB clubs' enthusiasm for charity work, such as the Los Angeles toy run.

Osprey Publishing Ltd. has released a book entitled 'Cult of the Harley-Davidson', by Gerald Foster, which contains 120 full-colour photographs covering America's motor cycle heritage. The book costs £5.95 and is available through most book shops.



follow up all the leads so far provided. In order to ensure that adequate research can be made into this subject, the conference has now been postponed until 5 February, 1983.

The course (No. 18/63) will include appraisal of suitable equipment, together with aids and adaptations and comments on specific cases where the individual needs of a particular nature have been met. Videotaped or live interviews with handicapped groups and individuals from various parts of the country will be included. Manufacturers and users will offer comments in discussion and the day will end with a panel session for questions and answers.

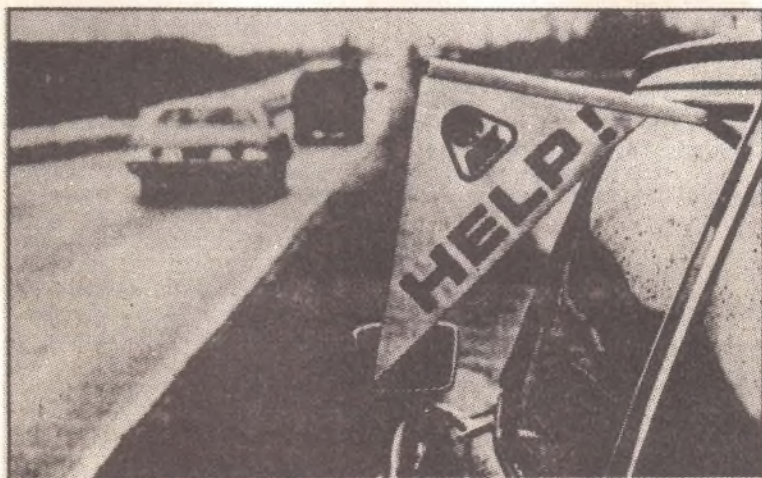
Anyone interested is invited to apply. The cost for the day will be £9.50, which includes coffee, lunch and tea. Bed and breakfast is also available if required on the Friday night (4 February) at a cost of £10 with a supplement of £2 for a single room. Application forms are available from:

**Castle Priory College
Thames Street
Wallingford
Oxon
OX10 0HE**

REACT HELP flag

REACT International, in Chicago, has developed a HELP flag to be used by motorists in an emergency situation. "The reflective orange flag is particularly useful to non-CB-equipped vehicles," say REACT. "The flag can be attached to the car window and gives a visual indication of trouble."

It would also be very useful in many areas of the UK where channel 9 is more often than not blocked by walls. Whether or not the dinky little flag is taken seriously is another matter!



REACT 'HELP' Flag Available

CHICAGO, ILLINOIS — REACT International has developed and is making available through local REACT Units, a HELP flag for use by motorists in need of assistance. Made of reflective orange vinyl, the pennant is attached to a staff designed to be held in place by the auto door-glass. It provides visual sign of auto trouble, and is particularly useful for the non-CB-equipped motorist. It is available from local REACT units, or, in response to a tax deductible, \$5.00 contribution to REACT National Headquarters, Inc., 111 East Wacker Drive, Chicago, Illinois 60601.

More Oxfordshire REACT

The recently-appointed Oxfordshire County Co-Ordinator of REACT has asked us to appeal to Oxfordshire residents who are interested in joining their worthwhile community service.

In Oxfordshire last winter there were many incidents where CB radio proved its worth in the appalling weather conditions that were experienced. In many areas, though, there was no organized monitoring service. There is, in fact, only one REACT team in the county, a situation that needs to be rectified by the instigation of more teams.

Should anyone in the county be interested in setting up a team in their area, Mr. W. F. Tully would be only too pleased to give them assistance.

**W. F. Tully (REACT County Co-Ordinator)
8 The Croft
West Hanney
nr. Wantage
Oxon
OX12 0LD**

We AIM to serve

A new monitoring organization has been set up in North London under the title of the Association of Independent Monitors (AIM). The founders of this new service claim to have gained vast experience of channel 9 monitoring but have felt that something was missing from the existing system.

In order to give their members a chance to air their views, a meeting was held in Tottenham, after which the following objectives were decided upon.

- 1) To monitor channels as necessary and give assistance where possible;
- 2) To encourage the correct use of CB radio as a benefit to the community;
- 3) To actively campaign for the legalization of an emergency channel and implementation of effective control by the Home Office for the betterment of all;
- 4) To encourage social and charitable activities.

If you feel that you would like to help fill the missing link in serving the breaking public, AIM would be pleased to hear from you at:

**102 Beaconsfield Road
Tottenham
London
N15 4SQ**

DX QSL

INTERNATIONAL

CLUB SPOT



Hi, swingers, it's that time of year again. Got your lists in yet? I know you lot. I know the sort of things that you sneak onto your Christmas lists - 200-watt burner, switchable(!), Sommerkamp TS 780 DX, three-element beam and rotator, Turner Expander desk mike and so on. Serves you right if you end up with the latest Yorkie Bar Good Buddy King of the Highway FM whatsil!

This month, I am concerning myself primarily with trying to bring my UK reporting up to date but fear not, I'll still manage a quick sneak visit State-side.

OK, seeing as last month I visited Ireland and Scotland via DX clubs, perhaps it's only fair that I let Welsh Wales into the act. Founded in 1979, the Red Dragon (Romeo Delta) DX Group has its QTH in Newport, Gwent, S. Wales. Club Secretary is Dennis Sartin, 1 RD 09, who is the man to contact, via Club Post Box 11, Newport, etc., for membership. At the time I received my information, Welsh Life Membership was £5.00. This brought you the full club package of Unit No. Cert. Membership Card, ID Card, 10 Club envelopes, 10 QSL cards, one Welsh sticker and cloth Club patch. Overseas Life Membership, items 1-4, was £2.50. Full package was £5.00 plus £1.00 postage. I've wrote that little bit in the past tense simply because I cannot guarantee that my figures are accurate. Due to a huge backlog of UK club news, I've been quite a while getting RD Club into print, so for bang-up-to-date membership details, I suggest that you contact Dennis. By overseas I don't know if this means anybody outside the Welsh border. Possibly, possibly not. Anyway, if you're interested in becoming a member of a Club from every country within the British Isles, here's a nice one from the valleys.

An old friend of mine popped up in the mail the other day. Sierra Victor Int. DX/QSL Club, of 43 Greedon Rise, Sileby, Leicester (the world's biggest club stamp - remember?) have instituted what I believe to be the first DX/QSL club internal QSL'ing competition. NOT a DX competition, a QSL'ing competition. For those familiar with DX club competitions, it is being run on exactly the same sort of lines. There are five separate country

awards available, each country award being split into three categories, Bronze, Silver or Gold merit award. To claim awards, the claimant must have QSL'ed Sierra Victor members as follows: Bronze award, 10 members; Silver award, 15 members; Gold award, 20 members. This applies to the following awards only. No. 1, Great Britain. No. 2, USA. No. 3, N. Zealand and Australia. No. 4, Europe. Award No. 5 is an anywhere-in-the-world category. However, the QSL's required alter appreciably. Bronze award is for 50 SV members, Silver is 75 and Gold is 100. An interesting competition and something to think about during those long, dark winter days. Full details are available from Club President, Peter Breed, SV 001C, of 43 Greedon Rise, Sileby, Leicester.

While I've got QSL'ing on the brain, some Dirty Doodler news. In last October's issue, I mentioned DD No. 865 'Annie Oakley'. This, as you may recall, was Part 2 of a most unusual three-parter. Thanks to Andy 'Edbanger' Cookson (Papa Bravo Club) and Ian 'Sandman' Shrader (Sandcastle Club), I now know from where the full set originates. No. 864 'Dishwasher', No. 865 'Annie Oakley' and No. 866 'Corpse Grinder' (What a weird handle) all come via the same AD, 1916 East 16th, Olympia, Washington 98501 USA. Before you dash off a note requesting copies, be warned.

Ian advises that he's not sure about the certainty of a 100% return. My advice, considering the circumstances, is to write to the AD, enclose two or three IRC's and mention that you're keen to swap QSL's - "Anything doing?". The IRC's should at least guarantee a reply, even if it is only "Get stuffed, Limey". One Dirty Doodler who I can personally guarantee a 100% 1-4-1 return from is Calum 'The Yankee' Anderson, of Glasgow. Calum has already featured in these columns when he became the first DD card in Scotland. At that time it was with a black 'n' white card, however, since then, wonderful things have happened. Calum is now the proud possessor of a full-colour version of his card and it looks pretty good. If you want a full-colour version of DD 991 to compliment your black 'n' white copy, Calum will be more than pleased to hear from you. Being a bit of a lad, Calum has also dangled a tantalizing little bit of info in front of me. Some time in the near future, he will be part of a DD four-parter, which will automatically become a collector's card. As yet, this is only in the planning stages, so as soon as Calum lets me know further info, I'll pass it over.

For the really dedicated DD collector, did you know that there is a Doodler Collectors' club? The following package, sent by air mail, costs US\$8.00: certificate, Unit No., 25 dif-



Discover the world of the **MAGIC MUSH-ROOM!!** Write to:
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aka
MUSICMAN

ORIGINAL ART TO YOUR PERSONAL COLLECTOR WORLD-WIDE

United Kingdom Representative

181 FERRYBOAT LANE
SUNDERLAND
TYNE & WEAR,
ENGLAND
SR 5 3-RS

UNITED KINGDOM REPRESENTATIVE

1037

ferent Doodler cards, a check-off sheet and a roster of DD card holders. Extras include a rubber stamp at \$4.00 and a 'very impressive' four-colour patch at \$4.00. Up-date roster sheets are available every six months for \$1.00. Membership can be had by either writing direct to Sooper Snooper or via Ian Shrader. As with all good things in this life, there is one drawback. Dirty Doodler Collectors Club is open to DD card holders only.

OK, from a world-famous collectors' card series to one which is comparatively unknown but, given time, could well become a sought-after, famous (or infamous) series. Mick Marks, that dashing young man about town, rubber stamp manufacturer extraordinaire and President of the Anglo-American Magna Carta Int. Sidebanders, has sent out on its merry way a collectors' card series comprising of 10 different cards. Most of them are pretty straightforward but there are one or two I wouldn't send to Mary Whitehouse! If you've ever seen any of Mick's rubber stamps, you'll know what I'm on about and what I mean by infamous. Actually, as it happens, they're very good-quality cards and well worth acquiring for your collection. Drop Mick a card and request one or two of the collectors' series. You won't be disappointed.



A request now from Bill Ross, of Ayrshire, Scotland. This request is aimed primarily at a QSL'er from Hereford, known as NG Unit 2 and with a handle of 'Silver Shark'. Back in the June issue of CB Radio Magazine, Bill (Flying Scotsman) featured in the 1-4-1 swap list. 'Silver Shark' posted off a QSL with a request for a swap. All very well, so far. Bill appreciated the swap very much but there was one big snag. 'Silver Shark' forgot to put his AD on the card. All that he gave out as an AD was Hereford. So, 'Silver Shark', of Hereford, can you please drop another card to Bill giving him your full return AD? Bill is a very conscientious QSL'er and most keen to swap but without your AD - mission impossible.

Bill, by the way, is getting in some good DX contacts lately. A short while back, he had a fine QSO with an Ita-

lian monk and has the QSL to prove it. I wonder what order this monk belonged to. Obviously no vows of silence had been taken by him or does skip shooting not count as an Earthly message!

Here's a cute little tale which will give you a bit of a giggle. Round about the beginning of September 1982, Sierra Foxtrot 11 - Jenny, operating at the time via the call sign of Juliet Alpha 43, contacted a station in Beirut. On 15 September, Jenny posted off her QSL and sat back to await the Beirut station's return card. By the end of September, when a QSL had not been received, Jenny put it down to bad luck and figured that due to the troubles which were now going full blast in Beirut, her card had never even reached its destination. Unfortunately for Jenny, she had (unknowingly) posted off her cards with an incorrect postage stamp value of 31p. The correct postage should have been 57p. Step forward, our hero! Somewhere in the vast labyrinth known as British Telecom, there works a Buzby clone with a heart of gold. Rather than return Jenny's QSL's undelivered, he posted them on to Beirut with the extra 26p-worth of stamps stuck on the envelope. A very nice, albeit standard, letter was then posted to Jenny explaining the situation. Even the official Post Office envelope was addressed correctly, i.e., JA 43 (Jenny). All that Jenny had to do was to stick 26p-worth of stamps on a card and post it back to GPO, For-

eign Section. A real nice gesture by British Telecom, which proves that Buzby really does have your welfare at heart, even more so for DX'ers who put the incorrect postage on envelopes!

There seems to be quite a thing these days to have a group exclusive to the users of certain radios. The first such group I ever came in contact with was 'The Snakepit Club of Hawaii'. This was a club which was originally formed by Cobra radio owners/users. Also in the same vein is the 'President Sidebanders' which is self explanatory. Over here in the UK, we have two versions of the 'Ham Owners Club', a 'Cobra Operators Club' and, last but not least, 'Yaesu Owners Club UK-International'. Yaesu appears to be 'the radio' to have, so it's hardly surprising that the YOC is growing larger each week. However, it's not the UK group which I intend to give you the lowdown on. Despite anything which you hear to the contrary, the original Yaesu group was formed a good few years ago, Stateside, by Steve, the 1Y1. Steve has been into radio for over 32 years now, the last 25 of them happily operating on 11 metres operating under the call sign of 1Y1. Steve has worked skip just about anywhere you care to think of. Some of the rarer DX locations he has worked include Russia, Czechoslovakia, Hungary, Bulgaria, Asia and China. A very impressive list indeed. For a long, long time, Steve has used Yaesu equipment. In fact, his list of Yaesu equipment

Personality of the Month

I'm sorry to say it but I've had a very poor response so far to my QSO of the Month spot. Rather than lose the space which I've managed to grab from the Editor, I'm trying for a Personality spot. To get it going, here's a special treat. A three-for-the-price-of-one photo. The bloke on the left is not Wyatt Earp! It is, in fact, our old mate, Tom Sowden, KIT 001. The beard in the middle belongs to Peppy Digriolamo. Peppy, in fact, is now the Vice-President of KIT. Tom and Peppy go back a long way. Way back, in fact, to 1981. As Tom says, he and Peppy "Have gone

through thick and thin, good times and very rough times but we both came through them all 100% together". When you consider that Tom is talking about Vietnam experiences, it's easy to see why he has a lot of faith in Peppy. There's no way that Tom would allow anybody but the best to be V-P for KIT. The good-looking bloke on the right? The one and only Clem Bain, Sandcastle QSL Club UK Representative and Dirty Doodler QSL Card UK Representative. Three great characters and a credit to the 11-metre DX/QSL club world.



DX QSL INTERNATIONAL CLUB SPOT

verges on the unbelievable! You mention Yaesu radio and I guarantee if Steve doesn't own one at the present time, he's either owned one at some time or at least operated one.

Several years ago, Steve got the idea to form 'The Yankee Group', which was to be an exclusive international DX group of Yaesu-equipment owners. Permission to form the group and use the Yaesu name was sought from Yaesu Musen Co. Ltd., of Japan and, happily, authorization was given with their blessing.

The Yankee Group soon caught the imagination of Yaesu equipment owners, with the result that members can now be found on every continent, in fact, in over 350 countries. Membership includes: 11-metre SSB operators, short wave listeners and amateur radio operators. Membership fee is US\$2.00. No one gets to keep the money. All money goes to the group. For the \$2.00, you get a Yankee Group call sign, registered model and serial number with the group, help in finding Yaesu equipment parts, new or used and any info needed on ANYTHING ever manufactured by Yaesu Musen Co. If a member requests a special call sign within the group to match his other call signs, if at all possible, it is given. Membership fee in this case is then \$5.00. By special call sign, I mean should you, for example, use a Whiskey Whiskey call sign of, say, 25WW100, the corresponding Yankee call sign of 25Y100 will, if available, be allocated to you.

As is common with most other true DX groups, the Yankee group does have a group monitoring frequency. This is 27.980 LSB. Each Sunday, from 12.00-20.00 GMT, the Yankee Group Net meets on this frequency. Steve often runs this net, taking in check-ins and providing Yaesu info for anyone that needs it.

Should there be any Yaesu owners out there reading this article who are thinking about joining a DX group, I would suggest that you look no further than the Yankee Group. For Yaesu information, the Yankee Group is second to none and could well prove, some time in the future, to be the best \$2.00 you've ever spent.

The full AD for membership and other details is Steve IY1, The Yankee Group, PO Box 24, Keasbey, NJ 08832 USA.

Well, folks, that just about wraps it up for not only this month but this year. It's been quite a good year SSB/DX-wise. Many a new operator has



Genuine 1-4-1 QSL List
 Calum Anderson (The Yankee) 218 Hamilton Road Mount Vernon Glasgow Scotland G32 9QU (DD QSL new full-colour version)
 Mick (AA 03) Anglo American Sidebanders 10 Tolcarne Road Newquay Cornwall (Interesting new collectors' series)

Dave Plant Leeward Madeira Lane Colwell Isle of Wight PO40 9SP
 Tony Perkins (The Viper) 12 Vicarage Road Cromer Norfolk

(Dave is a bit downhearted. QSL him and cheer him up)
 Chris Colclough (Mike Charlie Bravo 19) PO Box 4 Mexboro

Jim Herkin 103 Moyola Drive Shantallow Derry City Northern Ireland BT48 8EF (No call signs on envelope, please. Jim is new to QSL's and is really keen to swap and make new CB pals)
 Yorkshire SG4 8UG (Another newcomer to QSLing. Please send a card and help Chris along)

been introduced to the DX bands and has never looked back. Unfortunately, as the use of the band increases, the standard and proficiency of operating appears to be decreasing at a corresponding rate. I've never heard so many "My friends" in my life. It really is a corny, overworked phrase. Gives me the creeps to hear it used non stop on 11 metres. It reminds me, oh so much, of the "Good Buddy" phrase of not so long ago. However, it's not for me to say what should or should not be said out there on the DX bands. I'm just like the rest of the 11-metre DX'ers - a pirate doing the best that he can. Once that skip starts rolling, well, it's everybody for himself and may the best man win.

Next month it's back to the international trail again, taking in Switzerland and Jamaica amongst others. Till next time, I hope you all have a very Merry Christmas and a Sooper Dooper New Year. Take it easy on the old plonk and be very careful on the roads. Whatever you do, don't have an accident while driving. From what I gather, you don't have a cat in Hell's chance these days of raising help via channel 9!

Ta, ta.
 Charlie Hotel Unit 25.

News, views, comments, QSL swaps and requests and QSO of the month entries to Charlie Hotel, c/o 3 West Street, New Silksworth, Tyne and Wear SR3 1EU.

Big News for Breakers

We've even more for Breakers with quality rigs made by UNIACE, the world's largest CB manufacturers - plus an amazing Radio Watch. All at special Breaker One-Four prices, naturally.

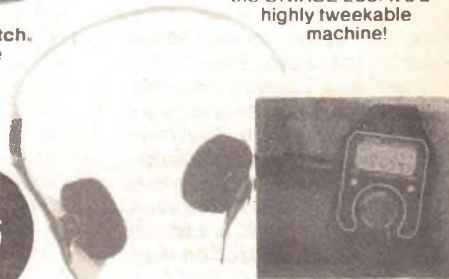
Audioline 340 Forty Channel CB Transmitter/Receiver with microphone, built-in speaker, LED Digital Channel Read-out, PLL Frequency Synthesiser, High/Low Power Control, Power Meter, Squelch Control, full fitting instructions and free guide to CB language.

£42.50
R.R.P.
£69.95



ZEON CT-600 Radio Alarm Watch. A neat digital watch with time, date and alarm functions and...wait for it, AM Radio (535-1605 KHz frequency) through personal lightweight headphones. Powered by tiny cell battery - it's got to be seen to be believed.

£19.95



Audioline 341 Forty Channel Full-feature CB Transmitter/Receiver with the superb facilities of the 340...and more! R.F. Gain for increasing strength of incoming signal, Microphone Gain and P.A. function. Uses the same function board as the UNIACE 200. It's a highly tweakable machine!

£59.95
R.R.P.
£79.95

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London's first and foremost CB store.



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MIDLAND

CB PRICE-CRASH!



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(inc. despatch by Securicor)

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12 months labour and parts from date of purchase.

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40 channel 27MHz FM, fully legal mobile C.B. transceiver c/w microphone.

Features: On/Off volume control - squelch control - analogue numbered channel selector control - P.A./C.B. switch - L.E.D. digital channel indicator (green) - illuminated high visibility S/r power meter - Red TX indicator - external speaker connector - power connector - push to talk bar on mike (release to listen) - screw-type 4 pin mike connector - Phase Lock Loop frequency control - complete with dash mounting bracket (aerial not supplied).

BUT NO-ONE, REPEAT NO-ONE, HAS BEEN ABLE TO BUY AT PRICES LIKE THIS!

How have we done it? Simple. We've made a massive scoop purchase of these U.S.-designed beauties from the Far East and the cash-saving on this super deal is all passed on to you.

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Please send me (qty) MIDLAND CB 2001 rigs complete with installation kit and instructions.

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LEARN ABOUT AND WARN OTHER ROAD USERS OF HOLD-UPS, PROBLEMS ETC



CLUB SPOT

Bristol Channel Radio Club

The club, stationed at the RAOB Club, Broad Street, Barry, have made Rocking Chair and Laser One members of the club. The two breakers are lighthouse keepers on the Flat Holm Island, midway in the Bristol Channel. This island is noted in the history of radio because it was from the island that Marconi, with his assistant, George Kemp, made his first broadcast across water. The club members feel honoured to have these gentlemen as members. A big evening is planned for 22 December, when the club will be holding its Christmas party with a running buffet and the entertainment will be provided by the Wave group.

Roy Jones (PRO)
Barry, S. Wales

Golf 9 Club

This is a serious group - over 18's only, no disco's, just CB talk - with a limit of 50 members. We meet on alternate Tuesdays at the Stan Laurel Inn, Ulverston, Cumbria.

Wild Rover (Secretary/PRO)
Ulverston, Cumbria

Cotswold Breakers UK

The Cotswold Breakers UK is the longest-running club in Gloucestershire. We are a CB club covering ALL modes, i.e., AM, SSB, FM or two Coke cans and a piece of string. The club is very active and the Committee is trying very hard to maintain the best interest of its members. The club is housed in The New Lodge (known as 'The Bright Lights' to local breakers. It is on the top of Minchinhampton Common, near Stroud.

There is a truckers' section which is known as Cotswold Truckers (you may see sun stickers on waggons up and down the country). They hold very lively meetings and shows. The Cotswold Breakers hold Ladies' Nights (which I am told are very well patronized and very entertaining).

The membership of Cotswold Breakers UK stands at approx. 1,300.

We also have a DX section called Cotswold Hillbillies, which it is hoped will remain active for a long while to come. The call signs for DX'ers are Charlie Bravo for Cotswold Breakers and Charlie Hotel for Cotswold Hillbillies.

The club has its own PO Box for members' use, also the meetings are held on the last Sunday of any month (that is the main meeting) bar December and winter eyeballs are held the second Sunday of the month. New members or visitors are very welcome to visit our club and the Committee is always open to suggestions of how to help the club prosper.

On main meetings nights, Dangermouse holds a shop for all those CB 'goodies' one may want. The disco music is provided by Loud and Proud. We also have groups and comedians for family fun nights.

We have members who are taking the RAE Exam and we wish them all the best.

If you are in our area (Junction 13 M5) on a meeting or eyeball night, come up and see us, you will be made very welcome. Anyone wishing to contact the club, write to the Committee, PO Box 6, Stroud, Gloucestershire GL6 0DY.

That's about it from us, we are QSY and QRT this end, 51's and 73's from Committee and Hoss.

Hoss (PRO)
Stroud, Glos.

Young Pioneers CB Radio Club

Nationwide CB radio club for children aged 6-14 years (age limit applies for entry only) with qualified radio-operator training, instructions in electronics, equipment troubleshooting, etc., training for constructing own CB equipment, inc. hand-held CB's, etc.

Postal enquiries to Young Pioneers, Office of the Commander, Re: CB Radio Section, 174 Bow Common Lane, London E3 4HH.

The YPCBRC is an underdivision of the Young Pioneers.

As this is a legal-operating club, only 27MHz FM will be permitted - NO AM or 49MHz equipment (ONLY equipment conforming to the Home Office specification and regulations).

Every member of the club has to conform with the HO regulations and the Official Code of Practice layed down. Should any violation of the rules come to the knowledge of the club, i.e., its leaders, the club will take disciplinary measures.

The membership fee will be £1.00 p.c.m., which will have to be paid monthly. A registration fee of £2.00 will be required on registration to

cover administrative costs, costs for membership/ID card, etc.

K. Regenstein (Forest Alpha)
(Commander in Chief)
London, E3

Troon Breakers' Club

We are a small, recently-formed club meeting on alternate Monday nights in the Village Hall. All CB'ers are welcome and our membership includes very junior to relatively senior breakers with family membership being encouraged.

Activities, past and future, include fox hounds, treasure hunts, disco's, Christmas parties, videos and many interesting features.

Membership is £2.00 per year (£1.00 if still at school) and 20p (10p for £1.00 memberships) per meeting. If you're passing, drop in for an eyeball and a cup of muddy water.

Ciao, ciao.
Scorpio (Graham Bailey) (Chairman)
Camborne, Cornwall
PS. Great magazine - keep it up.

Crewe Charity Breakers

This is not a club but an association of breakers who raise money for charity. We meet at the St. Mary's Social Club, Delamere Street, Crewe, Cheshire on Mondays and Wednesdays at 7.30pm. We have no bias towards or against AM or FM but regard both as breakers. Both are welcome and so are the users of any other sort of radio transmitters. Discos are held regularly and we often have live performers but we are only able to pay them a small fee for expenses. Hope to see some of you at our meetings.

Romeo Echo
Crewe, Cheshire

New clubs

Please let us know of your existence.

Established clubs

Please let us know of your happenings.

Sweden Mini-trip

All this for
£26.00

(Children under 16 £15.00)

- ★ Coach to and from Felixstowe
- ★ Round cruise in a 4-berth economy cabin
- ★ Guided sightseeing tour round Gothenburg

Berth in a 4-berth cabin with shower and toilet available at a supplement of £5.00 per person.

Berth in a 2-berth cabin with shower and toilet available at a supplement of £10.00 per person.

DAY 1

Friday, 28 January. Depart Central London at 11.00hrs. by coach to Felixstowe, where you will join either "Tor Britannia" or "Tor Scandinavia" at 15.30hrs. Either boat can be aptly described as a floating hotel. Depart Felixstowe.

DAY 2

Arrive Gothenburg. When you dock in Gothenburg, a coach will take you on a sightseeing tour of this splendid city. Among the highlights

are Gotaplatsen Square, the Fish Market and Kungsporsavenyn, Gothenburg's main avenue. This tour is included in the price. After some time for sightseeing on your own, you'll be whisked back to the ship for another day on board your floating hotel while on your way back to Felixstowe.

DAY 3

Return to Felixstowe where you will arrive at 17.00hrs. Back to Central London by 21.00hrs.



I require accommodation in a 4-berth cabin with shower and toilet (add £5.00 per person).

I require accommodation in a 2-berth cabin with shower and toilet (add £10.00 per person).

Name _____

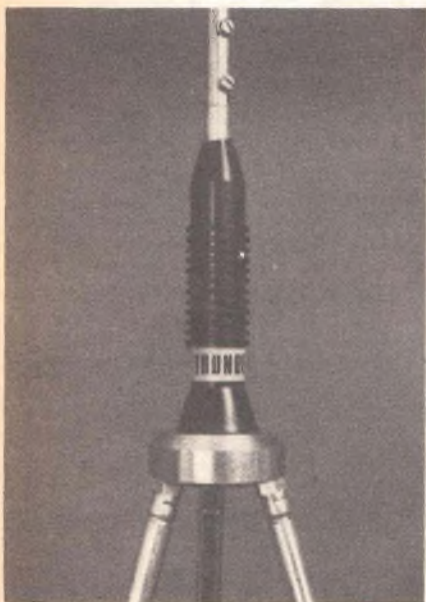
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 Southend, Essex Tel: (0702) 48601**

OVER THE COUNTER



Thunderpole II

Freeman and Pardoe have released details of improvements that have been made to their already-popular Thunderpole home base antenna.

The coil section of the antenna has been completely redesigned and incorporates a fibreglass core for greater strength. The solid copper windings have been double encapsulated for maximum performance in all weather conditions. The antenna is now supplied pre-tuned and, therefore, requires no VSWR adjustment.

The coil is mounted on a precision-machined alloy base with three angled ground planes each 2.67m. long with cross bracing. The Thunderpole II will handle 500W of RF power at 27MHz with a VSWR of 1:1.5 or less.

Ni-Cad Battery Charger

More and more items in the home, including walkie-talkies and emergency CB radios, are now capable of employing re-chargeable Ni-Cad batteries. Ni-Cad batteries are also available in most standard battery sizes to replace existing zinc-carbon and alkali batteries. Although the initial outlay for a set of Ni-Cad batteries

Cybernet Easi-Com

Cybernet is the latest company to release an emergency CB transceiver. The Cybernet Easi-Com is a 40-channel FM transceiver that comes complete with a mag mount antenna and a car cigarette lighter adaptor and it can be stored away in its rugged carrying case. The transceiver can also be used as a walkie-talkie, with its own telescopic antenna and battery pack.

Variable controls are supplied for volume, channel change and squelch. Retail price is around £59.90.



and a charger is fairly high when compared with the price of a set of disposable batteries, in continued use a substantial saving is made.

Babcock Woden, a Midlands-based transformer company, market a Ni-Cad battery charger which will charge

AA, C, D and PP3 batteries in approximately 15-16 hours. The unit is fully protected and cannot overcharge or overheat. It has also been designed to look at home on the sideboard or kitchen worktop. Retail price approx. £10.

Telecomm TC-9000

The Telecomm TC-9000 is a high-quality Japanese-made 40ch FM transceiver, conforming to the British specification MPT 1320. The attractively-designed black fascia panel houses volume, RF gain, squelch, delta tune and channel selector rotary control and push-button switches for Acc. (accessory switch, i.e., sel. call, Roger tone), P.CH. (priority channel, allows fast access to channel 9), on/off, hi-lo (RF attenuator) and CB/PA. A meter is provided to indicate signal, RF and PA levels and an LED display indicates the channel number.

A five-pin din socket is provided to connect the rig to an accessory sel. call device, a feature that is fairly uncommon but nonetheless useful. The microphone is connected to the rig by a five-pin din plug which is, unfortunately, positioned on the left-hand side. Full instructions and mounting kit are supplied. Approximate retail price is £65.



Novelty number plate frames

WK Promotions is marketing a range of American-type, rust-free number plate surrounds to fit most UK number plates (max. insert size 21in. x 4¾in.).

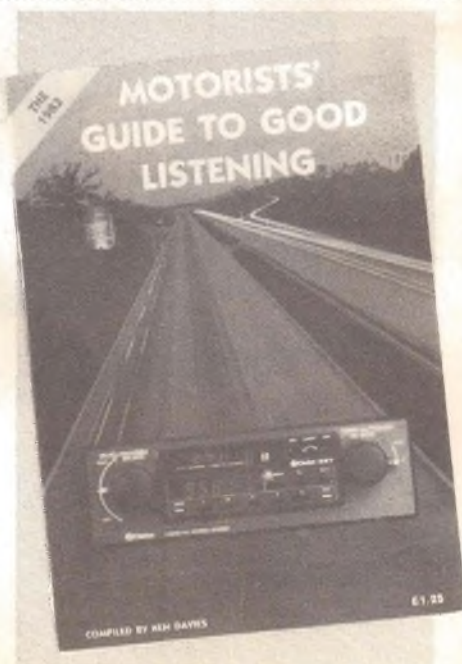
The plates are available in a choice of 31 different captions and several colour background and letter combi-

nations. The plates are also available supplied with pressure-sensitive stick-on vinyl numbers and letters in two different sizes, which are easily applied to make your own personal slogans. CB clubs may find these plates of particular interest to identify their members. Retail price is around £4 each. Substantial discounts are available on orders of 50 or more.



Realistic Easy-Rider

The Easy-Rider is a 40-channel FM transceiver that can be operated with one hand. All the necessary controls for operation are built into the microphone handset, including the channel change and indicator, volume and squelch controls and a loudspeaker. This allows the bulky part of the transceiver to be hidden out of sight to prevent theft. Single-handed operation is also an aid to road safety. Dual MOS FET circuitry built into the Easy-Rider eliminates crossmodulation and ceramic filters are employed to improve adjacent channel rejection. Retail price is approx. £120 from all Tandy stores.



Motorists' Guide To Good Listening

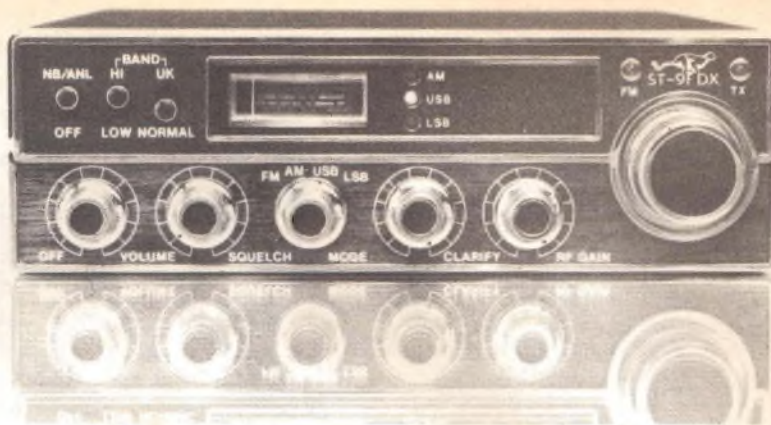
Have you ever had problems locating decent radio stations whilst travelling across the country? If so, the Motorists' Guide To Good Listening could be an ideal companion for you on long journeys. The glove-pocket-sized guide lists all the current BBC and IBA radio stations throughout the country, giving details of operating hours and broadcast frequencies and a brief review of their typical programme contents. The book is divided into nine area sections for easy reference which allows a suitable station to be located within seconds. The book is written and compiled by Ken Davies and is available, price £1.25 inc. p&p, from:

The James Group Ltd.
Tudor Works
Beaconsfield Road
Hayes
Middx.
UB4 0FL

Stalker ST-9F-DX

The Stalker ST-9F-DX is a 40-channel FM transceiver (MPT 1320) with the bonus of operations on AM, LSB and USB over frequencies from 26.965-27.855. Power outputs are rated at 5 watts on FM, 5 watts on AM and 12 watts PEP on SSB.

On the Stalker's fascia panel, controls have been provided for volume, squelch, mode, clarify, RF gain and channel select. Two-way switches are also provided for NB/ANL (noise blanker, automatic noise limiter), hi/low bands (AM, USB, LSB) and UK/normal. Five LED indicators show which mode the transceiver is operating in and whether it is transmitting or receiving. The usual S/RF and LED channel indicators are also employed. Approx. retail £139.95.



Nato 2000

The Nato 2000 is a 200-channel multimode transceiver which includes the UK 40-channels FM system as per MPT 1320. For use in this country, though, the Nato 2000 is supplied as a straight 40-channel transceiver, although re-connection is easily carried out should you wish to take it abroad. The other four bands cover the following frequencies: 26.065-26.505 (lo-lo), 26.515-26.955 (lo), 26.965-27.405 (US, 40) and 27.415-

27.855 (high). All bands can be transmitted in any of five modes, AM, FM, LSB, USB or CW. Selection is via a rotary control on the fascia panel.

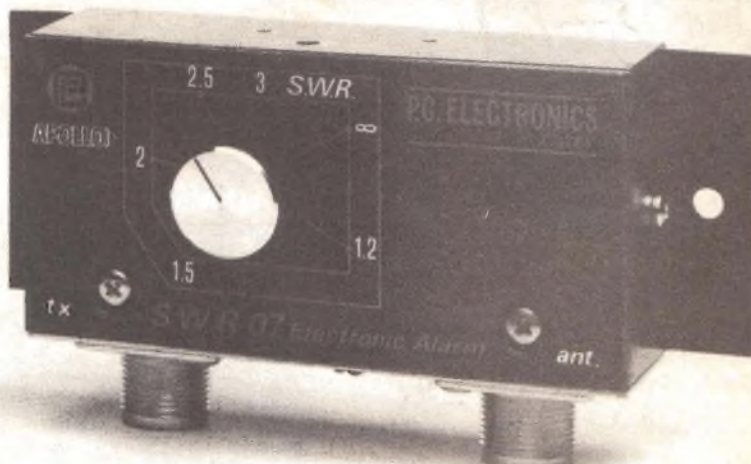
Other rotary controls supplied are volume, band (FM, A, B, C, D), squelch and fine/coarse tune. Switches are also provided for RF gain (DX, MID, LOC), ANL (Automatic Noise Limiter), NB (Noise Blanker), PA, tone (hi-lo) and power (hi-mid-lo). The usual S/RF meter and LED numeric displays are also provided. Approx retail price £167.95.



Bantex Hunter

Bantex Ltd., of Park Royal, London, has been manufacturing antennas for the land and marine radio telephone industry for over 20 years but has only recently entered the CB market with the release of its Hunter antenna. The Hunter is a 1/2-wave base-loaded whip conforming to the British CB specification, similar in appearance to many RT antennas but don't be fooled by its plain design. Many local breakers who were given Hunters to test claimed that they outperformed their K40's.

Bantex intends to extend its presence in the CB market and will be releasing further new products shortly. The retail price for the Bantex Hunter is £17 approx.



Audio SWR meter

Using the PG Electronics SWR 07 Electronic Alarm, a constant check can be kept on the SWR level of your CB set up, keeping the working efficiency under control and reducing the risk of transceiver damage. When connected, if the VSWR level creeps above the level previously set using the six-position switch on the alarm's

fascia panel, an audible tone is generated. Pre-set levels correspond to VSWR levels of 1.2, 1.5, 2, 2.5, 3 and off. The alarm can function accurately on power output ranging from 2W to 100W with no loss of transmission power.

This unit should prove to be very useful to both blind and sighted operators. Retail price approx. £19.95.

RUFNEK by ZAZ

GOOD NUMBERS TO YOU FOR THE NEW YEAR!

GOOD NUMBERS? WHAT'S THAT MEAN?

THEY MUST HAVE LET HIM OUT FOR THE NEW YEAR!

I'VE TRAVELLED FAR AND WIDE
I'VE BEEN TO THE ROSE AND CROWN
... RED LION ... BULLS HEAD ... KINGS HEAD ...
... AND LOADS LOADS MORE ...

HAPPY NEW YEAR

FUMBLE! STAGER! SCATCH!

I THINK I MIGHT FIND IT DIFFICULT TO DRIVE IN MY STATE!

... ESPECIALLY FROM INSIDE THE BOOT!

HIC!

18-34!

TO HELL WITH TRYING TO FIND THE KEY HOLE!

I WAS LUCKY TO FIND MY CAR... NEVER MIND THE DOOR KEY HOLE!

13-1!

GOTCHA! ... IS THIS YOUR CAR?

I DON'T KNOW, I HAVEN'T TRIED THE KEYS YET!

WHAT CHANNEL IS ALCOHOLICS ANONYMOUS ON?

I SUPPOSE YOU WERE ABOUT TO DRIVE OFF ON AN INEBRIATED JOY RIDE?

I CAN'T REMEMBER, OSSIFER, MY BRAIN DOESN'T FUNCTION PROPERLY AFTER 15 PINTS!

NO PARKING ON THIS GARDEN!

I'M FEELING A BIT SICK, OSSIFER!

YOU WILL BE WHEN I'VE DONE YOU FOR DRINKING AND DRIVING AND YOU HAVE TO BE A HOME BASE FOR A YEAR!

ONE YEAR BAN

DID I WISH YOU A HAPPY NEW YEAR, OSSIFER?

HUUUGHIE!

THAT'S DONE IT! I'M GOING TO THROW THE BOOK AT YOU!

YOU'D BETTER TIE A BRICK TO IT. I'M THAT PARA I DON'T THINK I'D FEEL IT!

BEING SICK ON SMOKEYS CAN SERIOUSLY DAMAGE YOUR CHANCES OF DRIVING AGAIN!

I THINK SOMEONE HAD BETTER PUT OUT A 10-33 FOR RUFNEKS SOLICITOR!

I CAN EXPLAIN OSSIFER! IF I CAN GET OUT OF HERE!

EVERY YEAR I GET SMASHED OUT OF MY BRAINS AND MY FAMILY WORRY ABOUT ME. SO THIS YEAR TO MAKE SURE I DIDN'T GET INTO ANY TROUBLE...

YOU'RE ALREADY IN DEEP TROUBLE, INTENDING TO DRIVE WHILE UNDER THE INFLUENCE OF DRINK!

REEK

... LIKE I WAS SLURRING ... BEFORE YOU INTERRUPTED ME! TO MAKE SURE I DIDN'T GET INTO ANY TROUBLE OVER THE NEW YEAR MY DAD AND BROTHER TOOK MY...

DRINK DRIVING BAN

FUMBLE

.....ENGINE OUT!

MEGA BLSH! OH SH#D!

I'LL SAY IT FOR HIM... GOOD NUMBERS TO YOU ALL FOR THE NEW YEAR!

EMPTY!

confessions of a cb enthusiast

from Videostar

Have you recovered from the Christmas/New Year 'bash' yet? Thought not! Although it's not quite Christmas while I type this, I'm getting some practice in - why do you think the Editor didn't invite me to the CB Radio Magazine Christmas Party? I don't know either! Be that as it may, last month I made mention of the fact that it wouldn't be long before all of us CB licence holders received a cunningly-worded invitation asking us to part with a further £10.00 for the privilege of 'breaking' for another year. No sooner than I'd said it, mine arrived! So, just in case you're wondering . . . yes, I paid the £10.00 and yes, I grudged every one of the 50 20p pieces I had saved up to pay for it! With Christmas looming, I begin to dread what the channels will be like on the 25th. A whole army of people up and down the country are going to get CB's as a Christmas present and the serious breakers are going to start diving for cover! A number of adult breakers I spoke to confirmed my belief that during the school holidays children make daytime breaking a chore, as barely three minutes of a modulation would go by before a voice would chip in, saying "On the side, on the side, side, side . . . on the SIDE!". After asking who's on channel and a quick "What-am-I-hittin'-you-wif?" they would vanish, only to break up another modulation on another channel they hear voices on! This isn't a problem that's confined to just one area of the UK, as it's happening everywhere, especially in the frozen wastes of Scotland, near my home 20 (Glasgow, to be precise!).

Families who are CB-orientated normally keep an ear open to make sure that their offspring aren't spoiling it for others. For those of you who are buying this magazine for the first time (to see what it's all about), congratulations, you've picked the best one and I hope you'll stay with us! One quick tip, if junior wants to play with your rig and you're happy for him/her to do so, by switching in the 10dB attenuator you can effectively cut down the range of your rig if you can't supervise them and please tell them to respect the three important channels: 09, for emergency and assistance use; 14, for making initial contact, moving off to another channel once this has been made; and, finally, 19, the mobile breaking channel. By remembering

these three channels and respecting them, CB will become more enjoyable for all. As I live in a large city (which shall remain nameless to protect the guilty!), channel 19 is used as a normal breaking channel, which certainly confuses and annoys mobile breakers on motorways through the big cities, like the M1/4/8/25 and 62. Human nature being what it is can cause an argument and keep the channel blocked for a considerable time, especially if the 'wally' concerned decides to either sing to you or play you his latest pirated cassette. Leave them along, if they think no one is listening to them, they might just give up CB and go back to ringing doorbells and stealing car hub-caps.



Looking around the CB marketplace, one thing is very apparent - and this concerns the number of CB radio dealers. Compared with this time last year, there is only about half the number of retailers. With a full specification rig costing in the region of £29.95, the vast anticipated profits from a CB-starved UK certainly didn't materialize and only those dealers who were able to offer a service to the public were able to continue with confidence. Many firms who made a big commitment to CB now no longer stock or sell rigs and accessories. There never was a 'boom', it just didn't happen. After all, it took some eight years before CB became widely accepted in the USA and here we are, a few weeks after our first year of legal breaking and the 'knockers' are smiling with a "told-you-so" look, saying that CB was just like the skateboard and hula hoop and is now as dead as the proverbial dodo. Obviously, YOU don't think that as you wouldn't have spent your hard-earned buying this magazine (If you're reading a friend's . . . shame on you,

buy your own copy next month!). How do you see citizens' band radio developing in the future? If NATCOLCIBAR gets the backing for an amendment to the CB licence that allows digital transmissions, we'll be able to turn our electric blankets on, open the garage doors, even turn on and off the Christmas tree lights at will, all through the use of a standard CB radio and a small box of tricks attached to your extension speaker socket - radio communication is a serious business and can help thousands of people. CB, on whatever system, AM, FM or UHF, is here to stay.

Do you remember, last summer, the sad tale of my car being broken into and my rig being lifted? Well, I've been using a full specification hand portable (the Tandy TRC1001) but there is still no substitute for a properly-installed mobile rig. The police advised me that the only way to stop your car being broken into and your CB stolen is not to have one in there in the first place (What they actually mean is to unplug and take your rig with you!). Fortunately there are now a small number of rigs available which enable the user to keep a 'low profile'. In addition to Binatone's space-age 'Breakerphone', Harry Moss brought out an addition to their Audioline range with a rig reminiscent of an old Remington electric shaver which incorporates a mike, speaker, channel indication and the usual volume and squelch. Not forgetting Tandy, their 'Easy Rider', which costs about the same as the Audioline, has all the controls you need on the mike itself (Yes, it's quite a big mike!) and when leaving the car, all you do is throw the mike under the seat or unplug it from the control box and lock it away in a glove compartment. I chose the Tandy version as it looked neater and I'm a sucker for two free beach balls and a 1983 diary with free batteries for a year. Who says Videostar can't be bought! So far, I'm delighted with it. If there are any problems, I'll keep you posted.

After a rather arduous month, my boss has just told me that I've been selected to get a proper car telephone installed in my vehicle - OK, it's another twig on the roof but does this mean I'm joining an even more 'elitist' band of breakers? Probably not . . . I'll tell you all about it next month.

10-10.

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Bedworth, Warks.
Tel. 319015

Breakers Paradise

84 Wellington Street
Luton, Beds
(0582) 33625

 **Lucky
Numbers**
62 East Avenue
Hayes, Middx
01-573 4848

Patchway Cars

Gloucester Road
Patchway, Bristol
(0272) 694331

Simple C.B.

37 Station Road
Rickmansworth
Rickmansworth 70634

Seabright Supplies

Seabrights View
Galley End, Chelmsford
Tel. 76748

Tridentstar Ltd.

Unit 30, Century Street
Sheffield
(0742) 442486

GLOBE CB

110 Hoe Street
London, E17
01-520 5831

Rusty CB Centre

Davidson Road
Lichfield
Lichfield 57411

Shadow Communications

259 High Street
Waltham Cross, Herts
Tel. 26896

ACORN

Unit 43, Station Road
Coleshill, Birmingham

Catswhisker's

 **CB Stores**
25 Chatham Street
Reading
(0734) 589193

CTVR

35 Oxford Street
Grantham, Lincs.

Ratchet Shack

Unit 6, 8 Bells Arcade
Newbury, Berks
(0635) 31451

CB TRADER

243 Caledonian Road
N1

Northampton Elec

47 Queen Eleanor Road
Northampton
Northampton 67666

Globe Wholesale

168 Brooker Road
Waltham Abbey

Hobby Communications

Hobby House, 54 London Road
Milton Common, Oxon

Skyriders

557 Hertford Road
Enfield, Middx
01-805 6400

AM & T

AM House, 9a Olds Approach
Tolpits Lane, Watford, Herts

Black Knights Grotto

Lewfield Gardens
Hoddesdon
Hoddesdon 45161

OCT

407 Lordship Lane
N17

James Group Ltd.

Tudor Works
Hayes, Middx
01-561 5778

Gamma Aerial Products

Crabbe Street
Lye
Lye 891132

Radio Telephone Centre

148/149 Manchester Road
Swindon, Wilts
(0793) 34136

CAPITAL CITY CB

34 Buckstone Terrace
Edinburgh, Scotland
(031 445) 4711

Scunthorpe CB Centre

4 Ferry Road
Scunthorpe
Scunthorpe 842744

Pama and Co.

Pama House
433 Wilmslow Road, Withington
Manchester M20 9AF
(061 445) 8918

North Herts Wholesale

8 Melbourn Street, Royston
Herts SG8 7DZ
(0763) 42295

MicroComms

372/374 George Street
Aberdeen AB1 1EQ

RADIOMOBILE

Goodwood Works
North Circular Road
London, NW2
01-452 3333

Wallace Telecommunications

Greencoat House
Francis Street, London, SW1
01-828 2673

Llanelli CB Centre

21 Station Road, Llanelli
Dyfed, Wales

BACK to BASICS

Or the Boxing Day guide to getting on channel

Right, so you've been given CB for Christmas but it is safe to say that if you don't have *all* of the following components, you can forget it for a while. It is quite impossible for you to get on the air until your local friendly CB shop opens again after the Christmas break.

- 1) Rig
- 2) Twig (antenna) complete with co-

Fitting the rig

1) Make sure the mounting area is suitable and strong enough.

2) Ensure that you don't drill through the wiring or instrument panel.

3) Check that the wire carrying the power comes from a fused source or that an in line fuse is fitted.

4) Don't try putting a 12V rig in a 24V lorry or a 6V car. They don't mix!

5) Connections direct to the battery ensures no voltage drop and helps eliminate engine noise. You can run the feed from an ignition switched accessory terminal on the fuse box.

6) Check there is provision for the power feed in the bulkheads you pass through or that there is free space for a hole.

7) Cars are either positive or negative ground. CB's are also positive or negative earth (although some sets are dual polarity). Most modern cars are negative. Negative sets cannot be installed in positive cars and vice versa. Consider this when buying a rig.

8) When connected do not try to transmit without the antenna correctly installed, sited, in circuit and SWR'ed. (Transmissions whilst SWR'ing should be as brief as possible).

Why do I need an antenna?

In America, as many of you will know, different words describe similar items as used in Britain. One example is what in Britain we call an aerial in America is known as an antenna. Because CB originated in the United States it has become the standard to refer to CB aerials as antennae.

To transmit the antenna used needs to match the frequency (see SWR opposite), to match the frequency the antenna used has to have an electrical length.

Therefore, for CB signals to transmit, the antenna used must have been specially designed to suit the frequency, i.e., 27MHz or 934MHz. Do not be mistaken or misled - an antenna is the most important part of your equipment. Forget the cost of the rig, if you cheat on the quality of your antenna the performance will be reduced.

But which antenna?

OK, you now know that the antenna is vital, it must be of good quality and that it must be base loaded with a wire rod or element not exceeding 1.5 metres. But which make shall I choose?

Personal preference must really come into this choice as well as your specific requirements. For instance, do you intend to drill a hole in your vehicle or will you use one of the various other alternatives, i.e., magnetic mount, gutter clip, boot clip, bumper clip or even a mirror mount.

The reason for considering the mounting first is simple: many large shops sell only pre-packaged antennae complete with cable antenna and mount. For this reason, you should make sure the package contains the

axial cable

- 3) Patch lead
- 4) SWR meter.

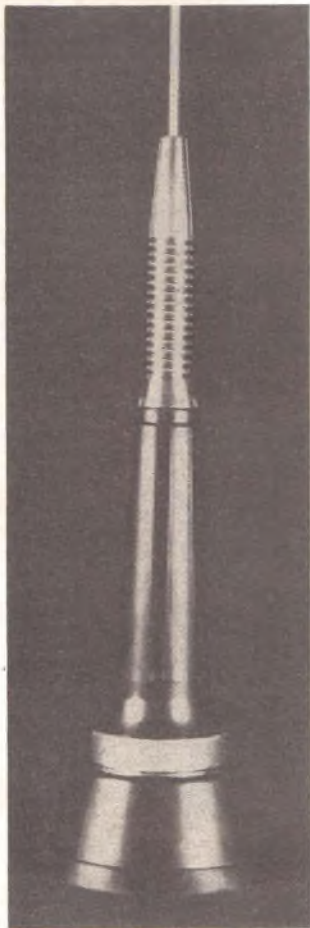
This list obviously doesn't apply to those of you who have been given walkie-talkies or emergency units. All you need is batteries and that's it.

DO NOT FORGET - IT IS TECHNICALLY ILLEGAL TO OPERATE ANY CB EQUIPMENT WITHOUT AN

particular mount you have chosen or if not that accessory mounts are available separately.

Then in all honesty all you can judge is the quality of the goods. Look for cable which has RG58 printed on it. Various grades are available. An average or reasonable quality is RG58 C/U. Beware of coaxial bearing no identification, coaxial cable is as important as the antenna itself.

Then examine the connectors, called PL259's. They should be clean, sturdy looking and durable. With the antenna itself, look for a strong whip. If metal, look for the unmistakable sheen of steel. Well insulated connections around the loading coil are important - either heat-shrink plastic or a similar waterproof casing. If water does get into the loading coil it can affect the performance and even damage the set.



What sort of antenna?

To comply with an FM licence it must be a single wire rod or element base loaded (loading is a series of coils, wound to increase the electrical length to that required for the frequency).

The wire rod or element must not

exceed 1.5 metres (4ft. 11in.). This measurement is taken from the top of the loading to the tip of the antenna, not the whole length of the antenna.

Antenna length

At this stage the 'loading' really requires a little more explanation. There are four possible lengths of antenna, full wave, $\frac{3}{4}$ wave, $\frac{1}{2}$ wave and $\frac{1}{4}$ wave.

As we have just mentioned, the frequency determines the length because the antenna must match the frequency's electrical requirements.

To determine this length there are precise mathematical formulae. For 27MHz the equation is:

$$\frac{300 \times 10^6}{27 \times 10^6} = 11.11 \text{ metres}$$

This gives you the electrical length required for a full wavelength, however, as 11.11 metres (36+ ft.) is highly impractical, not to mention illegal under present licencing, the physical length must be reduced. A half wave, therefore, would be 5.55 metres (18+ ft.) - exactly half a full wave - and $\frac{1}{4}$ wave 2.77 metres (9ft. 1in. or 109in.).

Any antenna used must be either full wave, $\frac{3}{4}$ wave, $\frac{1}{2}$ wave or $\frac{1}{4}$ wave.

Whilst the physical length of the most practical antenna for use 'legally' is $\frac{1}{4}$ wave, it is still too long; the licence requires a maximum length of 1.5 metres. To reduce the physical length an inductive loading is used. A loading coil is really only the extra length of wire that could not physically be used, i.e., 2.77 metres ($\frac{1}{4}$ wave) minus 1.5 metres (legally allowed). In a simple antenna, 1.27 metres of wire would make the loading coil. However, in reality this can be reduced but for the purposes of this simplified explanation we will not complicate the matter.

The problem with reducing the physical length is that the efficiency is also reduced.

Installing the antenna

1) The antenna should ideally be mounted as high as possible. The higher the percentage of the antenna length mounted above roof-top the better the performance.

2) Put the cable as far away from noise sources as possible (ignition systems, etc.).

3) Mount antenna with a good metal to metal ground, removing paint, mud or rust where the antenna is to be mounted.

4) AVOID ANTENNA CO-AXIAL CABLE DAMAGE. This is the problem with mag or gutter mounts as the cable will need to pass through the window or door opening. Shutting the window or door on the cable can cause damage to the cable and consequently to the set.

5) Again, before drilling, check that you aren't damaging anything (like the petrol tank!) and that there is enough free space for any mountings.

6) Make sure that the cable can lead

APPROPRIATE LICENCE.

Anybody lucky enough to have been given a 934MHz rig for Christmas will still find the following article essential reading. However, you must remember that 934MHz equipment does require different accessories. There are available 934MHz aerials, cable and SWR meters: 27MHz aerials, etc., are not suitable.

to the rig without kinking, stretching or working against anything. DON'T WIND UP EXTRA CABLE INTO A TIGHT COIL. This can drastically influence the performance of the antenna.

7) Use proper, soldered connections and make sure that all plugs, etc., are screwed tightly. Don't leave cable and connections hanging or where they can be pulled or damaged.

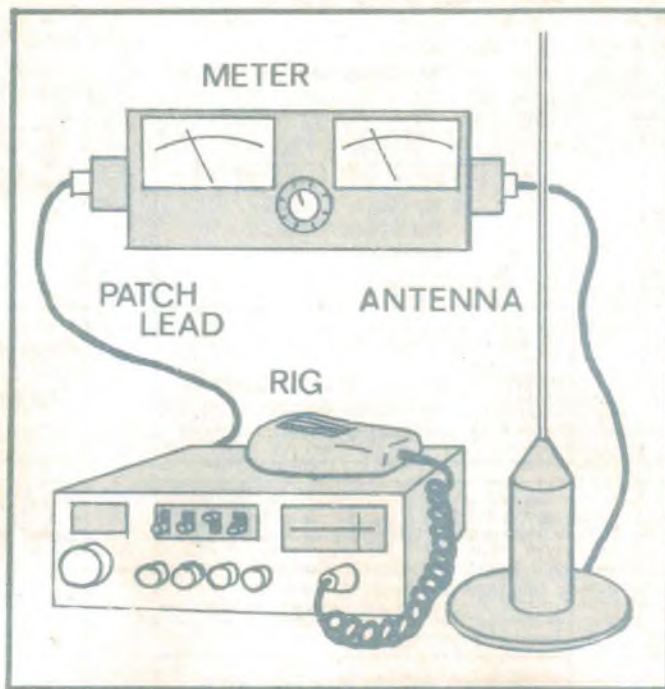
8) If you need to lengthen the existing cable or buy new co-axial cable it must be RG58U 50 ohm cable.

9) Still don't transmit! Wait until you have SWR'ed and are satisfied with all the connections and installation.

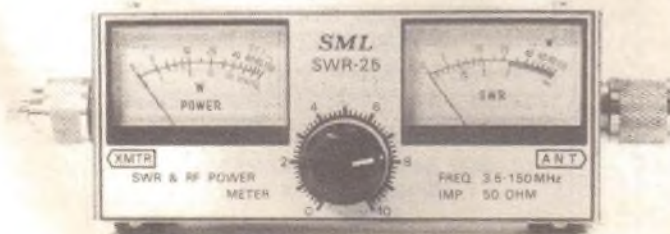
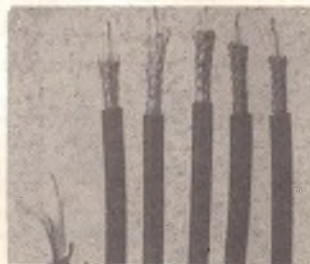
The location of the antenna on the car will influence the radiation of your signal - see diagrams. Location of the set is also down to you but remember you need to change gear, your passengers might want to use the set and you should be able to reach it easily to change channels without running down the pedestrian population of your area.



BACK to BASICS



Above: How to connect an SWR meter. Below: Top, PL259 plug and different grades of RG58U; Bottom, a typical SWR meter.



SWR

SWR stands for standing wave ratio and gives a reference figure for how much of the transmitter power is actually radiated away from the antenna and how much is reflected back down the co-ax to the set. How much is radiated away depends on the physical or electrical length of the antenna and it must be tuned correctly to cover the frequency used. The figure is expressed as a ratio, i.e. 3:1, 2:1 or 1.5:1. You should concentrate your efforts into getting it as much below 2:1 and near to 1:1 as possible. If substantially higher you won't 'get out' too well and you could permanently damage your set.

You need:
SWR meter (some rigs have a built-in meter - instructions will come with the set); a patch lead - a short piece of

cable with PL259 connectors at both ends.

1) Park the car in a relatively open space, away from large amounts of metal, lamp-posts, trees or buildings.

2) Make sure car doors, boot and bonnet are closed.

3) With the rig switched off, disconnect the antenna co-ax and connect it to the meter terminal marked ANT. Using the patch lead connect the meter terminal marked CB or TX to the rig antenna plug.

4) Switch on the set and turn to channel 20. (It is anti-social to SWR on any of the breaking channels). Switch the SWR meter to 'Forward'. Press the transmit button. The needle on the dial will move. Adjust the knob on the meter until the needle swings over to give the maximum reading (often marked SET or CALIBRATE).

5) Now switch the meter to 'Reflected'

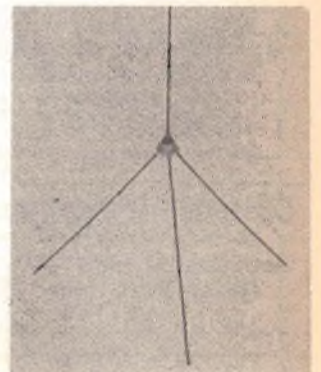
and key the transmit button. The needle should drop back and give a reading along the marked scale. If less than 2:1 there is no real need to worry.

You will find on all antennas a provision for adjusting the mast length. To find if it needs lengthening or shortening take two readings, one on channel 1 and the other on channel 40. If the reading on 40 is higher than on 1 then the antenna needs shortening. If lower on 40 than on 1 the antenna needs lengthening. MAKE VERY SMALL ADJUSTMENTS each time until the reading is satisfactory. If you need to actually trim the mast with a hacksaw, as opposed to sliding the mast up and down, cut off a minute amount each time. It is very easy to cut off/adjust too much.

Home base antennae

As yet very few legal FM antennae exist specifically designed for home installation.

What is more, a ground plane antenna, i.e., conforming to Home Office specification, needs exactly that - a ground plane. Very few houses have metal roofs, therefore an artificial ground plane must be used.



The physical length of artificial ground planes vary according to the same wavelength formulae and are dependent on the radial section, i.e., the antenna itself. With our limited 1/4 wave ground plane legal obligation, the simplest form of base antenna is to mount a normal mobile antenna on an artificial ground plane of 1/4 wave lengths, i.e., two lengths of metal both 109in., crossed at 90°, firmly attached and the antenna placed dead centre. Of course, other ground planes can work quite efficiently and the water-tank in the attic is not just a wind up, it can actually work.

Ground plane

When sighting the antenna (see opposite for positions) ensure that you have a good connection to the metal surface (unless you are using a magnetic mount). This connection is vital. Imagine your vehicle as a mirror - it forces the signal to travel up through the antenna and out. The larger the ground plane the more effective that reflection or radiation. Without a ground plane your signal will not get out and your set could be damaged as a high VSWR will exist. All base loaded antennae are known as "ground plane antennae" because the ground plane affects their operation.

As can be seen from the diagrams opposite, the ground plane affects the radiation pattern of your signal. An antenna mounted on a front wing pushes the signal back and diagonally opposite to its position.

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Harlow
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CB COM TEL

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Blackburn
(0254) 56098

P. SQUIRE

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Andover, Hants

CB Radio Distributors Ltd.

Unit 2
Government Industrial Estate
Union Mills, Isle of Man
851140

QFS and CB Centre

92d High Street
Billericay, Essex
22200

Auto Save Car Radio

11 Windsor Terrace
Grangetown, Sunderland
Tyne & Wear
(0783) 58392

Electromec Engineering Co. Ltd.

Claremont House
Northampton
(0604) 810000

Johnston Communications

63 Barclay Street
Stonehaven, Scotland
(0569) 64618

Silver Streak CB Sales

83a Roman Bank
Skegness, Lincs.
(0754) 810914

Elektronika Ltd.

239a Wellingborough Road
Northampton
(0604) 31785

The Motorists Shop

207 Lenthall Avenue
Grays, Essex
33428

could you
have been here?

HAPPY NEW YEAR

from



Readers Write



Dear Sir,

Your article 'The Death of Channel 9?' brought a wry smile to me.

In this area, channel 9 is often flooded by breakers, not only young ones, to the extent that it is virtually unusable. Granted that, should a 10-33 come in, despite all the interference, it is usually possible to get some co-operation.

But is all the fault with the breakers using the channel to racket?

I think not. On challenging some of these 'offenders', an opposite point of view comes to light, which, condensed from the words of many, comes out as "Why should the very same breakers who flood the channels with 'burners' and use illegal twigs, while openly bragging about it on channel, breaking the law and the regulations, tell us to respect a convention which has no backing in law?". "Why should I go off channel 9 at the instructions of some other breaker who can be heard minutes later operating at a boasted 100 watts on another channel with a squelch turned up high so that nobody can get in on the side to join in?" "If channel 9 is the only one I can reach my mates on, because somebody is blocking out the channels from the far distance, why should I keep off it? After all, I pay my licence and I want to use my set. If I can't use it because somebody else won't obey the rules, is that fair?"

On the subject of monitoring, my own experience leans to the belief that many but not all monitors are on an ego trip, while prone to panic in emergency.

How many times has the average breaker heard an excited voice calling for search parties to look for missing children or similar, only to realize that the monitor has not carried out the basic precaution of checking the facts, has not, in fact, checked with the police to ensure the report is genuine, has not then got and written down the details of dress, colouring, height, etc. but relies on memory, with the consequent lapses?

How many times have we heard some officious 'monitor' come on channel 9 ordering some breaker to break off a 10-33 on the grounds that the monitor is the 'official' monitor for that area?

By the same token, how many times have we heard a monitor, on channel 9, taking a 10-33 but operating at high watts so that it is impossible for any other monitor to pick up a local call should one happen along? How many times have we had a monitor stepping with 'big boots' over a local, legally-equipped monitor, to reach a call from the far side of the area? Apparently, the heavily-equipped monitor cannot realize that even the A-Z series of maps or the local street maps are not

as good as local knowledge.

What the caller, advised of services in a strange area such as a hospital "just around the corner" or "a garage 100 yards from you", thinks when the hospital turns out not to have emergency coverage or the garage is not open 24 hours or at whatever time the caller is in difficulty, hardly bears thinking about.

Some of the things accepted as 10-33's and followed up by direct action are almost unbelievable.

Searching for an adult who is driving around in his car because he has had a row with his girl friend is bad enough but how about the monitors who dash out in their cars to repair some vehicle on the roadside, completely unmindful that, apart from friction with the local breakdown services, any further incident with the same vehicle could be put down to their activities and involve them in heavy financial penalties? Unmindful or unknowing that towing, unless the right attachment is used, can cause damage to a vehicle and that an automatic gear box on a vehicle bans it from being towed unless it is suspended, rear wheels off the ground.

Even the Good Samaritan act of nipping out with a gallon of 'motion lotion' can cause trouble. Apart from any breakdown service in the area being upset at the loss of trade, there is always the danger of the rescued motorist being overgenerous in refunding the cost of the petrol. "Have this fiver for your time and trouble" later becomes "I ran out of juice the other night. A monitor service came out to me with a gallon. It cost me a fiver." A few of these misunderstandings will quickly be expanded to an idea that monitors are in it for money. Wrong, I hope but it can happen.

If monitors could only accept that they are *monitors*, to listen out *in their own area* and to be able to pass on messages to the emergency services, which cost nothing, on the 999 system or, should they wish, to contact a garage near to the breakdown or a breakdown service if that would be quicker and that, in cases of missing persons, the police, if contacted, will say whether they want assistance in a search.

This latter is most important of all. We are all aware that some strange people exist in this world who get pleasure out of harming youngsters or old folks. In these cases and in the more simple 'wandered away' occurrences, the ability of a dog to follow a scent is invaluable. A herd of breakers, however well intentioned, milling around the area before being invited in by the police, can ruin any chance of the dog finding the track and bringing the search to a speedy conclusion.

The idea of monitoring is praiseworthy. The actuality, even without mention of uniforms and flashing beacons on cars, is often less so.

Let monitors stick to being *monitors* and channel 9 can be resuscitated, made hale and hearty and respected by the majority again.

Name and address supplied

Dear Sir,

50MHz band operation

At the moment, 50MHz is only used in the US as an amateur band. The Radio Society of Great Britain intend one day to introduce a Novice Licence. Until last month, nothing had been done.

They announced they wanted a list of amateurs with a Grade A Licence who wished to operate on 50MHz.

With the possibility of 50MHz operation for all amateurs, this would be the ideal frequency to have a Novice Licence. Licence conditions would have to be strict but the future looks rather rosy.

This time last year, I was very excited at the prospect of legal CB. Twelve months later, what a change in mood! Many lessons have been learned! Why did the Government choose 27MHz? Was it to stop illegal AM breakers? Or was it a political football, knowing full well that 27MHz operation would cause even worse interference and the British public would go up in arms against its use!

Just goes to prove that they (the Government) are a bunch of morons.

Yours faithfully,

Chris Lee
Romford, Essex

PS. Let's legalize hanging!

Dear Sir,

Please accept this letter as a suggestion for an article that, although it may take time, could no doubt be accomplished through the pages of your magazine.

I am a CB user and live in the industrial Midlands. All my conversations start by introductions on channel 19. I use this channel for the obvious reasons but mainly for the traffic information that other motorists provide either directly or through the solitary, unpaid, voluntary services of home base operators.

On my perambulations up and down the country, I have had occasion to use these operators for a 10-13 but have been in doubt as to their handle or range of operation. This kind of information would be useful and especially so to the high-mileage fraternity on irregular or out-of-the-way routes.

My suggestion is that a letter be printed in your magazine and possibly through the pages of a sister or allied

cont . . .

Readers Write



production requesting information from the 10-13 operators or their regular 'customers' as to their handles and operating range and times. This information, when gathered and collated, would be printed as a 'pull out' or supplement. Apart from being a useful item for the motorist, I think that with the thousands of CB'ers on the road it would do your magazine little harm at the same time.

Yours in anticipation,

T. F. Niven
Walsall, W. Midlands

Dear Sir,

At a recent CB club meeting, I had a very interesting talk with the visiting Chairman of another club. The question "Are there many wallies in your area?" cropped up and from what I gather the QRM merchants seem to be a disturbing and universal problem. Is there any way of dealing with them? Many interesting psychological points were raised: a) The different types of annoyance, e.g., music playing, dead keying, bucketmouthing, etc.; b) The different types of character involved and their motives, i.e., revenge, spite, boredom, inadequate character, etc.; c) The methods of combating them and the various methods' effectiveness.

Perhaps this subject would justify an article as it is, in my view, extremely serious and threatens the very existence of CB. If genuine breakers knew how to handle these people better, perhaps some, at least, would go away!

Yours faithfully,

R. A. Marriott (Red Star)
Sutton Coldfield, W. Midlands

We have always pleaded with the antisocial people who perpetrate these misdemeanours to desist. That, unfortunately, is the most we can do. We are not psychologists and I think an article about bucketmouths and wallies would only serve to highlight some of their perverse activities.

I think the old adage of "ignore them and they will go away" is more than appropriate in this situation.
—Ed.

Dear Sir,

I would like to reply to P. J. Gillen, of Ipswich, on his comments to my letter previously published. I do this, bearing in mind that if I open my mouth someone will be only too willing to stick his foot in it.

It is not my intention to cause contention but surely I'm not the only person in the UK that is not impressed by MPT 1320, which, in my opinion, is as much a political specification as a technical one. Now, hopefully, to enlighten P. J. Gillen and anyone else who is interested.

First, thanks to P.J. for informing everybody that FM CB equipment leaves a bit to be desired before it leaves the drawing board. Maybe a word or two from P.J. in a few manufacturers' shell-likes might improve

the quality of equipment, improvements that won't mean the price of a rig hitting the roof.

Second, come off it, P.J., are you telling us that to Frequency Mod. a carrier is not technically simpler than to AM that same carrier? As for demodulating AM or FM, there are plenty of silicon chips that will do both, all on one chip.

I will be only too glad to show P.J. makers' specs. of what is actually available, if he has read this far and not bitten through the magazine by now.

Third, P.J., if AM is so prone to produce interference, do you wonder why the Government is urging public and emergency services to change from FM to AM? Maybe they've found a way to stop it causing interference and I do agree here with P.J. that high-power equipment in the hands of the ordinary layman will definitely cause problems, especially if used in close proximity to any other equipment.

Close proximity versus power used, as a rough guide, is usually 1 watt radiated to 100 yards. So, if 4 watts are radiated, the possibility exists that someone ¼-mile away can be knocked out (TV's and stereos, etc.) regardless of mode and bearing in mind that somebody's pride and joy that has just cost them a lot of money is probably technical garbage inside and will object to your signal in its own peculiar way but you can't tell Joe Public that, as he will tell you if it cost £100 it can't be deficient in any way.

Sorry, P.J. but I don't understand your point in saying SSB operators need more control. I've always found them extremely courteous and professional in the way they conduct themselves and in the way they respect each other's group monitor frequencies.

Oh dear, P.J., you've fallen into it as well! Can you put your hand on your heart and tell everybody that watt for watt and given similar antennas that FM can compete with SSB for distance, especially if riding the skip. Any technical book will tell you SSB is far less affected by ionosphere disturbances, etc. than either AM or FM and that is not propaganda as P.J. calls it but a simple truth.

Maybe P.J. would like to borrow my rig and listen to all the modes being used, although he seems to disbelieve it is at all possible.

I am aware of TV bandwidths. Is P.J. aware that reductions in carrier frequencies also means you can reduce bandwidths for video? Here we have it down to four channels and as we use it just below 26MHz, it doesn't bother the vast majority of CB'ers around here.

If, as you say, P.J., SSB, CW, RTTY, etc., cause so much aggravation, may-

be you should inform the radio amateur fraternity of their irresponsibility, I'm certainly not going to.

Your final suggestion, P.J., is put better than I could have wished to do so myself.

Maybe the pair of us could get our heads together and convince the powers that be that like natural resources, radio frequencies should be respected and also available to the users in the same way as the air we breathe, etc., maybe on a proportional basis. If certain frequencies are not used but held back just because the Government might need to use them in the event of needing to contact the last-remaining Lancaster bomber in the world or the BBC need a big chunk of VHF to get hi-fi sound back from their outside broadcasts then a potential 40,000 CB channels are lost.

How about it, P.J., me and you or, if you prefer, you and I, finding out just how much of the spectrum is unused or could be used better. I'll bet we could find plenty of elbow room in the spectrum in spite of Government denials that a spare kilocycle is to be had.

I would certainly like this particular resource to be used better and also shared out more fairly and in more proportion to the users of it. If you do, P.J., I expect to see your letter in the old PO Box soon and, if I can read it after its overnight soak in the bucket of water, I'll reply 100%.

PS to P.J. You've only got one foot left, how about using it to help us as it's not big enough to stamp us out?

K. Bradford
PO Box 135, Chester
CH1 1YL

Dear Sirs,

I am putting pen to paper in order to reply to Matt Sanders (October 1982 Readers Write) who, although an ex-AM breaker, is now obviously too narrow minded to see that the FM system we have been given is nowhere near a compatible substitute for what we wanted. The number of breakers on FM make copies of 60 miles possible if you want to wait until 3.00am when most of them have gone to bed. A more realistic figure must be 10-15 miles, if you're lucky, during peak use time. As for his suggestion that AM is only fit for wallies and truckers, I suggest he listens to the amount of idiots on FM at present. Not only does FM have the usual collection of mike-keyers, whisperers, music players, etc., it is now getting breakers with a sick sense of humour. I give the example of a message passed around the country about a breaker in Scotland who was dying of cancer and who wished to receive as many QSL's as possible. Many people responded and it has recently been found out that

Readers Write



this was a wind-up. That's a pretty sick joke by an FM wally, isn't it? AM isn't as quiet as he would have us all believe. Perhaps everyone in his area has gone FM because they don't believe in what we were fighting for (and still are fighting for). Granted, there are not so many people on AM now but it is still very lively with more ex-FM breakers joining the ranks every day, many going onto sideband and becoming good operators. As far as the comment about AM rigs being of an inferior design to FM rigs, does he not realize that the majority of FM rigs are simply AM rigs with a different crystal, a new name and a redesigned case? In many cases even the outer casing is the same, the only external difference being the 27/81 stamp. As Mr. Sanders points out, copies to Scotland have been known on FM but so have copies to the USA on straight 40 AM - when the skip is right. This applies to both modes. The only other point I want to mention is this: I would like to be able to go on holiday to France/Belgium/Germany, etc. and take my AM rig with me and be able to use it. You can take an FM rig with you (if they let it into the country) but where will it get you if you have an accident or breakdown? Nowhere! Because our system is 3.75kcs. off FCC frequencies, you would have no one to talk to. What happened to freedom of speech? Other European countries uphold their rights, why don't we?

Finally, I want to say that, although this letter attacks FM, I do think that over shorter distances it does give a clearer signal and is a better system technically but give me AM any time. The way that breakers in this country were treated by the Government is appalling - I feel conned and I know many other do also.

Yours faithfully,

Graham Bailey (Scorpio)
Camborne, Cornwall

PS. I do use FM as well as AM and have many friends there. It's not their fault we have this situation - only the Government's.

Discussions are currently taking place about the provision of a 'European Standard' CB system, which will be a fourth issue for argument. Can't wait.—Ed.

Sir,

Regarding the article 'An introduction - amateur radio', the writer hits it on the nail. We have NO organization to support us!

Being a member of RSGB for some 10 years, dissatisfaction has increased of late. Mainly due to pirating and legal CB, amateurs are now facing an uphill struggle for survival, especially on 2 metres. Having lately listened on the said frequency, I come to the conclusion bucketmouths are not only on CB but on 2 metres as well. Time is

running short for us as well. Will UK CB end up like our friends in Italy - "sheer madness".

The Society is not perfect by any means but without it amateur radio would be sunk.

Home Office does not care about CB at all, so why should us breakers pay for a service that is 'up the creek'?

Let's have a sensible CB service, not a 'b—s up'.

Yours very annoyed!

Christopher Leslie Lee
BRS 35021 (Mem. RSGB and breaker)
London, W1

Dear Sir,

As one of the CB magazines not totally FM orientated, I have a simple request of you.

Firstly, I must say I have observed with disdain several comments made in several magazines about the fact that AM, SSB is dead. This is not true, especially in our area of the North West and, indeed, the whole of Europe.

I agree that the old commitment for the legalization of AM, SSB and FM is not at the same level throughout AM'ers but believe me there is a lot of commitment within quite a few clubs, e.g., member clubs of the North West Coastal Federation.

I feel that many clubs have become extremely social- and charity-orientated because for some reason they are not being supported by the right information, if any, about events that are happening throughout the world, which will or at least could influence CB in this country.

Anyway, back to my request. Could your magazine lead the way by closely following events within the European CB Federation and the meetings of CEPT? It is the recommendations of the latter which will be accepted eventually by Europe.

If accurate reports are made readily available along with addresses of organizations and committees for people to write to, I feel sure CB'ers will feel compelled to write and express their views.

With this sort of response, once again the commitment to fight for a system that some of us have been fighting for for a long time will return.

Yours sincerely,

N. J. Cottrell (Wicked Chicken)
Chairman,
Red Spot Genuine Breakers Club
Chester

I am sympathetic to any breakers or groups of breakers who want to campaign for European CB. However, from a purely practical point of view, I honestly can't see many manufacturers or importers making and supplying a fourth CB system for Europe. From a financial point of view, any such exercise would be a disaster.—Ed.

Dear Sirs,

The Wayne Little Fund

I hope you can find space in your

magazine to print this letter of thanks for all the breakers who have helped with The Wayne Little Fund.

Wayne, eight years, a keen CB fanatic, is in the South Ward of Doncaster Gate Hospital, Rotherham. He is paralysed from his neck down and has been on a ventilating machine for the past four years as a result of a road accident.

We thought we would like to help Wayne both to keep in touch with the outside world and to increase his interest in our hobby by setting up a fund to buy him the specialist CB equipment needed to put him on the air. I originally arranged a 12-hour sponsored snooker match between the lads from Rotherham Road Traffic Police and members of the Sheffield REACT Team, with the hope of raising around £300 towards the fund. As soon as Wayne's plight got out on the airwaves, however, everything took off with a bang! There has been a tremendous response from CB clubs, organizations and individuals as well as a great deal of help from the local CB shops. There have been several sponsored walks, swims, ratchets and disco's arranged by individual CB'ers to aid the fund, not only in South Yorkshire but throughout the country and it is pleasing, to say the least, to know that the majority of CB'ers are well and truly 'good buddies', particularly with the bad image the CB fraternity has been plastered with of late.

The result of this generosity is that our target has been reached and smashed and we are anticipating that our final total will be around the £2,000 mark! This will enable us not only to provide Wayne with the equipment required but also to undertake similar projects in this area. Wayne has received hundreds of birthday and QSL cards, as well as badges and other presents.

I would like to write individual 'Thank You' letters to all the people who have helped the fund but, as you will appreciate, this would be an endless task - so I trust your magazine will assist the fund by printing this letter. Obviously it would be unfair to mention individuals in case I miss someone out and offend them but I have to give a special mention to the Killamarsh Breakers Club, without whose help it would not have been possible. Once again, to all CB'ers involved, a really big THANK YOU!

Yours faithfully,

Paul M. Edwards (Avenger One)
Steel City, Sheffield

We all add our hearty thanks to everybody concerned with this charitable exercise and are happy to see CB being of real benefit to the community.—Ed.

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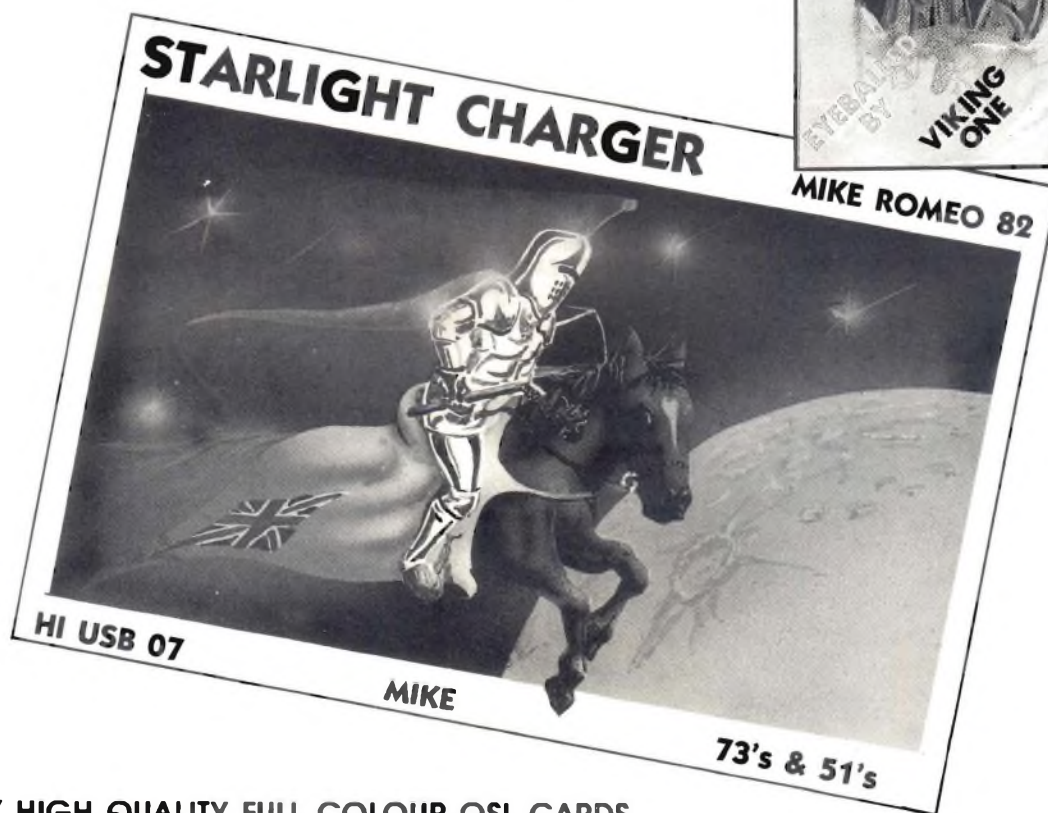
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