

VOL. No. 3 ISSUE No. 32  
FEBRUARY 1983  
70p MONTHLY  
IRISH REPUBLIC £1.04



# CB RADIO

MOBILE TO MOBILE  
ON 27MHz

WIN A  
MAXCOM RIG



A BUYER'S GUIDE TO REMOTE CB

*THE FIRST, THE ORIGINAL, THE MOST INFORMATIVE & THE MOST COPIED..*

## The British Breakers Mag.

*WE LEAD... OTHERS FOLLOW!*

NOW EXCLUSIVELY IN BRITAIN SEE PAGE 9

# In one year our **K40™** antenna has become the largest selling CB antenna in the world!

**1. It's more expensive ...**

**2. It's made better...**

**3. It's proven best!**

**£32.50**

suggested retail  
vat included

**And when you pay more, you expect more!**

#### MORE PERFORMANCE:

The K40 is guaranteed to transmit further or receive clearer than any antenna it replaces. We know it will. We've tested it with 771 CB'ers just like you for one year.

#### MORE FLEXIBILITY:

You can fit your K40 to any mounting surface. It will fit any vehicle you'll ever own! That includes choppers, dune buggies, gutters, mirror mounts, luggage racks, trunks, hatchbacks, through roofs, semis, pick ups and RV's.

#### MORE QUALITY:

It's not imported. It's not made in Taiwan, Korea or Japan. It's American made in an American town. It's made with better materials that cost more and by professional people we pay more. And we designed it in the U.S.A.

\*Including optional mounts at extra cost.

**...This Antenna is so DYNAMITE you receive a ...**

#### DOUBLE GUARANTEE

**GUARANTEE I:** The K-40 will transmit farther and receive more clearly than the antenna it replaces or the customer will receive a prompt and full refund from the Registered K-40 Dealer who installed and tuned it.

**GUARANTEE II:** Unconditionally guaranteed for 12 months. Guaranteed against cracking, chipping, or rusting. Guaranteed against mechanical failure. Guaranteed against electrical failure. Guaranteed against accidental breakage. No exclusions. No gimmicks. For a full 12 months.



**...Here's what the leading U.S.A. CB publications said.**

**CB TIMES:** "... it's not often that a product bursts onto the market scene, dominates and improves CB'ing for everyone. American Antenna and the K40 are doing it—repeated tests showed the K40 could out-perform the major competitive brands."

**RADIO ELECTRONICS:** "The results of our tests showed that, in three different positions of the monitoring receiver, the model K40 equaled or out-performed the competitive antenna. Apparently, American Antenna's advertising is not merely Madison Avenue showmanship."

**PERSONAL COMMUNICATIONS:** "... an impressive 95% of the trials, the K40 out-performed the existing mobile antennas. We had to try one for ourselves. "... in every case, the K40 either equaled or out-performed its competitor."

"No ifs, ands, or buts! The K40 Antenna from American Antenna would have to be just about the best antenna around."

**CB MAGAZINE:** "Introduced in October, 1977, the K40 quickly became the top seller and in mid 1978, became the number one selling antenna in the nation."

**...Here's what CB'ers all across the U.S.A. said.**

**ANTENNA SPECIALISTS:** "... truck driver and CB'er for 10 years ... 50% further than my M410 'Big Momma'."

—J.H. Collett, 207 McFee, Bastrop, LA

**AVANTI:** "I'm an electronic technician with a Second Class FCC license ... I was able to transmit 70% further and tune the SWR 75% lower than my Avanti."

—H.R. Castro, VRB, Monserrate D-67, Salinas, Puerto Rico

**PAL:** "... 20% better in transmission and reception than my 5/8 wave Pal Firestick."

—John A. Blum, Box 446, Zellenople, PA

**SHAKESPEARE:** "... I've been a CB'er for three years and the K40 is the best I've ever had. Better in reception and transmission than my Shakespeare."

—H. Bachert, Jr., 15 King Rd., Park Ridge, NJ

**HUSTLER:** "Compared to my Hustler XBLT-4, the K40 can consistently transmit 40% further and the reception was better. The K40 is the perfect way to complete a CB system."

—Jerome R. Brown, 7800 S. Linder, Burbank, IL

PERFECT FOR FM TOO!

**(SPECIAL NOTE) IF YOU'RE A BEGINNER:**

Our K40 Dealers will be happy to sell you any of the older style and less expensive antennas that are great bargains for any beginning CB'er.



**AMERICAN ANTENNA**  
ELGIN, IL 60120 U.S.A.

© COPYRIGHT AMERICAN ANTENNA 1979

**K40**  
**POWER!**

**...Sold exclusively by 5000 K40 dealers throughout the U.S., Canada & U.K.**

# CB RADIO



**TANGO CONTROL**  
Slough's CB Traffic Control ..... 24



**OVER THE COUNTER**  
Product Review ..... 32



**RIG TEST**  
British-built Mercury 1040 ..... 30



**REMOTE CB**  
Hide and Seek ..... 6



**MERCURY 1040**



OFF VOL SQUELCH RF GAIN TX PA PA -10dB CB 4w

## CB Radio Magazine

Tudor Works, Beaconsfield Road, Hayes,  
Middlesex UB4 0YL ..... 01-561 5778  
Printed in Great Britain by  
Bertram & Co. Ltd, Sheppan Place, Colchester, Essex  
Caption Services by  
Laser Litho Ltd., Beaconsfield Road, Hayes, Middx.  
Distributed by  
SA Distribution, Tinsley Gardens, London SW9

**IMPORTANT**  
AS A MAGAZINE WE CANNOT CONDONE THE USE OF  
ILLEGAL STATION EQUIPMENT NOR IN THIS PUBLICATION  
INTEND TO ENCOURAGE THE USE OF SPOON OR ANY  
OTHER ILLEGAL EQUIPMENT CAPABLE OF TRANSMITTING  
OR RECEIVING. WE DO NOT ACCEPT RESPONSIBILITY FOR  
ANYTHING PUBLISHED WITHIN OUR PAGES NOR ANY  
DAMAGE HOWEVER CAUSED. IRRESPONSIBLE, ABEY? WE?

© COPYRIGHT CB RADIO 1983. ALL RIGHTS RESERVED.  
REPRODUCTION IN WHOLE OR IN PART IS FORBIDDEN  
SAVE WITH THE EXPRESS PERMISSION IN WRITING OF THE  
PUBLISHERS. PUBLISHED BY CB RADIO MAGAZINE  
LIMITED.

Director..... J. O'Hara  
Executive Manager..... Gairle Robinson  
Editor..... Paul Carter  
Editor's Secretary..... Margaret Kivney  
Advertising..... G. McNeill  
Editorial Executive..... See Sharp  
Photography..... Colin Downs  
Production Assistant..... Steve Evans  
Photo Retouching..... Alan Brown  
Illustration..... Clive Hitchcock  
Technical.....  
Advertiser..... F. C. Sudd, J75EC, WDA, Assoc IPRE



MEMBER OF THE ASSOCIATION OF PUBLISHERS

## CONTENTS

An Appeal For A Dying Lad .....	2
Statesideband .....	4
Remote CB .....	6
1983 CB Radio Diary .....	10
Win A Maxcom Rig .....	12
Home Office News Release .....	13
Club Spot .....	14
Face To Face .....	16
CB Radio Guide To Service .....	20
Tango Control .....	24
Readers Write .....	26
Spring Weekend In Paris .....	28
Rig Test - EMS Mercury 1040 .....	30
Over The Counter .....	32
DX QSL International Club Spot .....	36
Reader Survey 2 .....	39
Round Up .....	40
News Review .....	42
Mobile To Mobile On 27MHz .....	44
Free Radio .....	47

## ADVERTISERS INDEX

AM Telecommunications .....	3
Breaker One-Four .....	18, 19, 35
CB Radio Distributors Ltd .....	11
CIBTA .....	27, 29
Classified Advertisements .....	48
Connectors .....	5
Dave Taylor .....	35
Freeman and Pardoe Ltd .....	15
K40 .....	Inside front cover
Laser Litho Ltd .....	Inside rear cover
OCT International Ltd .....	9, Rear cover
Tectel Wrekin D .....	15
Westward Electronics .....	15

# An appeal for a dying lad

Or was it?

Over the past few months, I have been involved in a bit of behind-the-scenes controversy which is not only sad but, to date, still a complete mystery.

Towards the end of October 1982, I was contacted by a friend of mine, Andy, from Maidstone, Kent. Andy and his local CB club were about to donate a few goodies to a 'worthwhile cause'. The appeal to which these good buddies were responding was on behalf of a young Scottish boy who was dying of an incurable disease. Andy phoned me to find out if I was aware of the appeal and, if so, to find out how it was progressing.

## Worried

Andy was also slightly worried about sending the collected items off to a PO Box No., being aware of some of the wind-ups and rip-offs that have been perpetrated in the name of charity.

I advised Andy to hold fire and immediately a letter was on its way to the PO Box to satisfy my curiosity. Not long after writing, I was phoned by a Scottish breaker with the handle of White Lady, who outlined the nature of this appeal.

Apparently, a breaker by the name of Young Scottie, Little Buddy or Paul, who at the time was living in Kirkcaldy, expressed a wish to get his name into the Guinness Book of Records by collecting as many QSL and eyeball cards as possible. The fact that this young lad was dying, turned this appeal into a matter of urgency.

## Eight hundred cards a day

I must say that by the time White Lady had finished telling this tale, I was almost ready to start collecting QSL's myself. One thing worried me, though. White Lady could not tell me the boy's real name, address or what he was suffering from. Everything that was collected by the PO Box (up to 800 cards a day) was passed on to another breaker who, in turn, passed them on. Nobody really seemed to know where the cards (and sometimes money) ended up.

I was not surprised that the local newspapers started following up this particular story as an appeal of this nature can, obviously, provide some good headlines. Like me, they didn't

take long to become suspicious and headlines such as "CB fans conned by bad buddies", "Myth of dying boy" and "Heartbreak appeal for dying boy was a hoax" started to crop up. Some members of the press decided to expand slightly on the story (otherwise known as journalists' licence or 'porky pies') and some very serious allegations were made about the appeal and about the people running the PO Box. You see, the press couldn't find the dying boy, either.

To prove their innocence and complete faith in the appeal, the Scottish breakers running the PO Box went directly to a solicitor to swear an affidavit. As a result of this affidavit, at least one of the newspapers decided that their original story was incorrect. I, personally, am in do doubt whatsoever that the people collecting on behalf of Little Buddy are 100% genuine. I still do not know whether Little Buddy ever existed.

## The moral

This story is a prime example of how a group of generous and kindhearted breakers have created doubt, controversy and upset, whilst trying to do good. The mere fact that they used a PO Box (and were unidentifiable) immediately caused suspicions.

When raising gifts, money or anything, the following rules should be strictly applied. Always use a name and address that can be traced, always ensure that the intended recipient of your charitable deeds can be identified and *actually* wants to be a recipient and please ensure that everything you collect or have donated reaches its destination. To prevent accusations, it may be better to select a recognized charity which is registered rather than an individual cause.

This story has come to a semi-satisfactory end, inasmuch as the people behind the PO Box, White Lady, Wild Rover and The Instructor, have not given up collecting for good causes. A young disabled girl, with the permission of her parents, is to receive any further QSL and eyeball cards for a Guinness Book of Records attempt.

As for Little Buddy, he apparently died recently but his name will not get into the book. If he did exist, I express my sincere condolences to his

family. If not, well hopefully, the lesson has been learned!



## What CB? and Breaker: the final showdown. "Son of Custom Car bites the dust"

It has come to pass that the great powers at Link House have decided to knock Breaker and What CB? on the head. I can't say that I blame them but I do feel a bit sorry for the staff who have now been relegated to writing classified advertisements for Exchange & Mart.

We will miss Breaker for its wit and humour (certainly not for its CB content) but What CB?'s absence, I'm sure, will not be noticed. Perhaps a combination of the titles (as per my suggestion in November 82) to What Breaker? might have saved the day?

PCC



Although British CB has rapidly developed its own image and slang, most CB'ers look affectionately at the USA as the birthplace of CB and the origin of many of its traditions and customs. Whilst not everyone wants to be a CB-speak expert, we've all had a good laugh at the colourful conversations of our local expert or those "good ol' boys", the Dukes of Hazard. The image of the American breaker is firmly fixed in the public's mind as strongly as John Wayne as the typical American cowboy.

However, much as AM CB'ers point to America as a shining example of AM CB in action, not everything in the CB-garden is rosy. Lou Franklin, author of *The 'Screwdriver Expert's' Guide To Peaking Out And Repairing CB Radios* and *The CB PLL Data Book*, rig repairer extraordinaire and truckers' confidant, paid a flying visit to Britain from California and took time out from his busy schedule to give us his comments on CB 'over the water'. He outlined an unhappy situation with the authorities - one that could well have parallels with developments here.

The heyday of CB has long gone from America and whilst there are still a lot of breakers, the actual sales of sets and number of users have dropped considerably from the figures of the 70's. Interest in straight AM CB may have dwindled but Lou pointed out that sidebanders and 'outbanders' are just as active - and are, in fact, increasing. (Incidentally, outbanders are the ones who are clever with their screwdrivers and manage to put channels and frequencies where there aren't supposed to be any). Many American breakers have turned to SSB and outbanding because they are fed up with or are just not getting the service they want from the straight 40 AM channels - something many British CB'ers would sympathize with.

Whilst sidebanding is a legitimate activity as far as the FCC is concerned (as long as the permitted channels and power are used) this hasn't been enough for many breakers and according to Lou, linear amplifiers and illegal frequencies are "the rule rather than the exception" for many opera-

tors. This high level of abuse, of course, contributes to other users' dissatisfaction and goads them on to 'improvements' of their own.

Along with outbanding and similar modifications, there is increasing interest in FM, particularly British FM CB, although ironically it's use is illegal. A growing number of American breakers use UK FM for skip contacts with British breakers and are finding a much clearer service. There aren't any indications of a significant number of British sets finding their way over - it's mainly recrystallized or adapted home equipment. America also introduced 800MHz UHF CB service some time ago but this hasn't proved successful. It's not clear whether this is through lack of interest or equipment. It may be that 27MHz is completely accepted as the CB system in America.

With the decline of CB in the US, it is receiving very little media coverage, apart from specialist publications. This is inevitable to a certain extent as CB has become accepted in American society but it reflects the public attitude to CB. "People who don't have a set, think of it as a hobby which was once popular and is now extinct," says Lou.

Public opinion isn't the only thing to have changed. Breakers themselves are using CB much more for 'ham'-type copies (or QSO's!) rather than quick radio checks. Conversely, less committed CB'ers don't bother with it unless going on a journey and they need police reports and traffic information. Along with this change in attitude is a change in speech - Lou says that many CB'ers now "disdain the use of 'trucker talk' and more normal conversational language is now used". TVI doesn't seem to be much of a problem anymore either, at least amongst the more civic-minded breakers, since publicity has ensured that most breakers know how to solve this problem.

The rest of Lou's comments on TVI rang warning bells. "The FCC ignores TVI complaints now because it no longer has the staff to enforce the CB service." The Federal Communications Commission has been under increasing pressure to cut staff and

budgets - with the result that what resources it has left are concentrated on more major areas. Lou follows up his earlier criticisms with "the FCC has virtually abandoned attempts to enforce legal rules in the US. They are putting virtually no effort into interference tracing and only investigate real life-threatening situations now, such as interference to aircraft control towers. Everybody knows the odds of being caught by the FCC are nil."

Under these circumstances, it's not surprising that many operators just don't bother to get a licence and break operating conditions. It also has worrying implications for British CB as many observers think we are tumbling into this situation already. At one time it was even suggested that the FCC drop CB licences, completely removing their CB burden. This met some opposition and due to international radio agreements, the FCC are not allowed to 'officially' drop the licensing requirement, so it is unlikely that it will go through. (Although effectively it might well be happening in practice).

The American CB market is very much larger than the British but the decline in use and purchasing has meant that development of products has slowed down. When I asked Lou if there had been any new developments, he answered emphatically, "No. In fact, there are virtually no new rig models appearing in America - the same with accessories." Since the introduction of emergency units, there have been no real innovations, although scanners are still increasing in popularity and complexity.

After all this rather negative news, the good news is that despite any decline, REACT and other similar organizations are still going strong and REACT can be called on from most locations in an emergency. Police attitudes haven't really changed towards CB either, although they don't regard it in such a positive way as they once did. (Lou rather more directly puts this as "the police don't really care much about CB").

It would seem from Lou's reading of the American CB scene that the USA is turning into a pirate's paradise. Is there an awful warning for us, too?

# State side band



# Connectors

SALE TIME

Just Check Out These Prices!

## POWER MIKES



£9.95

## SUPERSTAR 360

AM/FM/USB/LSB/CW + 40 UK



£160.00

## SWR & FS METERS

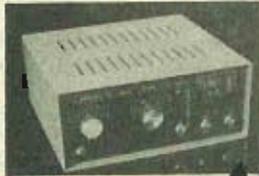


£4.95

HP AVAILABLE

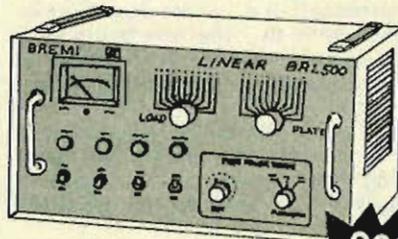
## BRL 200

AM/FM/SSB MAINS



£79.95

## BRL 500 KW MAINS



£220.00

## MIDLAND 2001

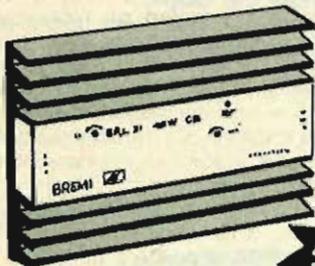
40 CH



£35.00

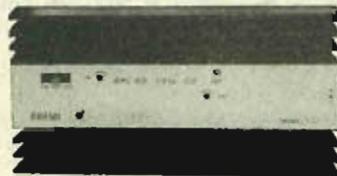
HP AVAILABLE

## BREMI 45W BURNERS



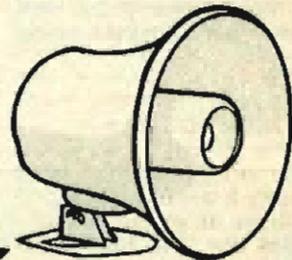
£25.95

## BREMI 70W BURNERS



£39.95

## PA HORNS



£2.99

Packaging and postage £2.00 extra, £5.00 extra for Superstar 360, BRL 500 and BRL 200.



**PLUS MANY MORE BARGAINS**  
**HURRY WHILE STOCKS LAST**

Phone for  
mail order

We also stock a vast range of cordless phones

£1,000 instant credit  
available.  
Enquire now for full details  
We accept American  
Express, Barclaycard and  
Access.



**Connectors**

11 Western Parade  
Barnet, Herts  
01-449 3476

# REMOTE



# CB

On the whole, innovations for rigs have been thin on the ground since the introduction of legal CB. Of the developments that have been introduced, none of them have been new ideas; for example, sel call has existed for many years in different shapes or forms. Sets for remote location are not new, either - there's many an AM breaker that has had a coveted American 'mike set' and Binatone had a set similar in principle available from legalization.

It's only now that other British companies are introducing similar rigs and, including the Binatone Breaker Phone, there are currently three on the market. This new product shouldn't have proved too difficult for Tandy, since they market a Realistic equivalent on FCC frequencies in the USA. The third is from the Audioline range,

distributed by Harry Moss Industries.

Given that there is a selection available, are you sure of what they are? Quite simply, they are CB sets with all the controls on the microphone, which is connected to a remote box that has all the works in - the box being situated wherever convenient. Some of the advantages of this type of rig are obvious:

- ★ All the controls are convenient to use and this can make for safer driving, as there's no scrambling under the dashboard to change channels.

- ★ The mike unit can be easily removed, making the car less attractive to thieves as there's no visible CB.

- ★ If the box unit is located under the seat or in the boot, there's no bulky rig to locate in the car. This is particularly important for small cars or

prestige cars that don't have a lot of dashboard space spare.

- ★ Depending on where the mike is located, it's easier for passengers to use, as it needn't be located close to the driver's hand.

- ★ Finally, such a rig does have a fair amount of snob value!

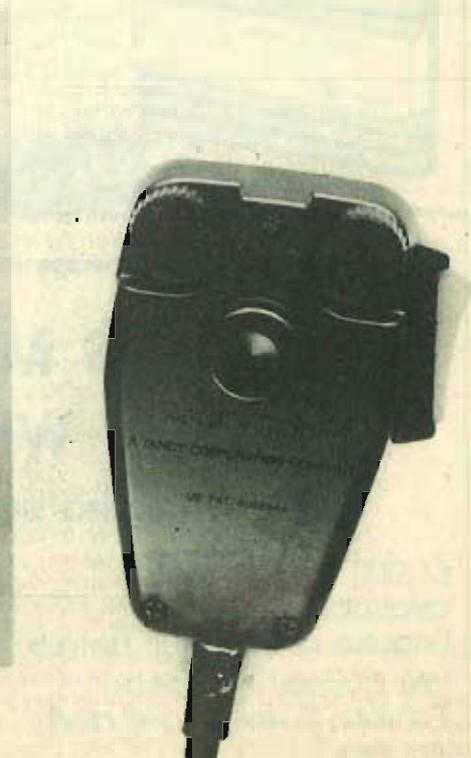
Mind you, there are disadvantages:

- ★ Sets are very much more expensive.

- ★ Because so much is crammed into the mike unit, if it goes wrong, it could be a major and expensive repair job.

- ★ The cable from remote unit to mike is very thick, since it carries all the wiring for the controls. This could be difficult to run through the car and hide under the carpet.

- ★ Some may find them more difficult to install than the standard rig.



## Binatone Breaker Phone

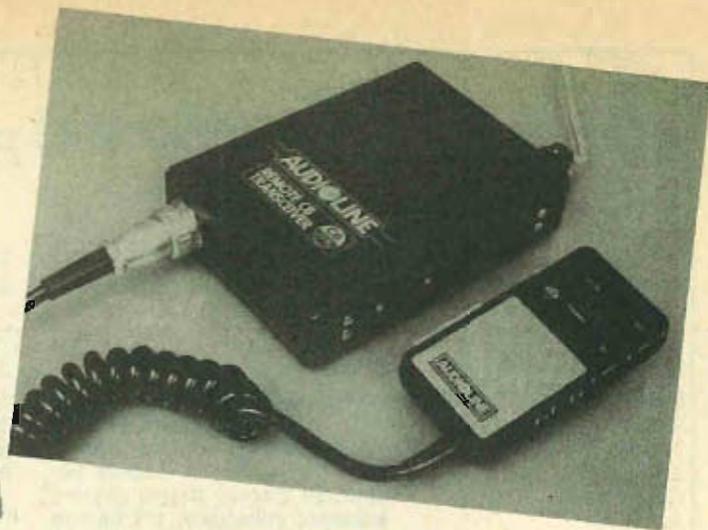
## Tandy Easy Rider

## Audioline Remote CB 342

<b>Price</b>	Expect to pay £80-100	£129.95	£159.95
<b>Accessories and price</b>	Extension cable (10m.) £14.95	Extension cable (16½ft.) £23.95	Extension cable (6ft.) £23.95 Relay box to utilize vehicle's stereo system speaker £23.95
<b>Country of manufacture</b>	Japan	Japan	Taiwan
<b>Facilities on microphone</b>	Telephone handset-type mike with TX/RX indicators, channel display, int/ext speaker switch, PA facility with PA display on channel display panel, volume, squelch, mike gain, pH button, push-button channel change, speaker	Squelch control, volume control, channel-change dial and channel display, PTT button, speaker	TX/RX indicator, volume control, squelch control, channel display, PTT button, channel-change switch, channel lock, attenuator switch, tone control, speaker
<b>Facilities on remote unit</b>	Antenna socket, mike plug connector, extension speaker wires, PA wires, power leads (these are very short but have spade clips for extending)	Antenna socket, power leads, attenuator switch for internal/external or integral speaker, external speaker jack	Antenna socket, power leads, relay socket, extension speaker jack
<b>Size of remote unit</b>	4¾in. X 6½in. X 1½in.	4in. X 7in. X 2½in.	5in. X 6¾in. X 1½in.
<b>Comments on remote unit</b>	Very, very robust and very heavy. Good-quality connector plug for microphone unit but also heavy. Box has heat sink for dissipating heat. No built-in speaker	Robust. Slightly less bulky as it uses an edge connector rather than plug. Has a speaker unit – useful if mounted under dash	Robust. No built-in speaker
<b>Comments on microphone</b>	Telephone type. Rather confusing at first, as there is so much on it. Only one to have mike gain. Again a bit confusing if used to standard mike. Suspect it isn't that strong. Push buttons change one channel up or down but scan if held down	Functional rather than stylish! Fits comfortably in hand and appears reasonably strong (although shouldn't be bounced around). Channel change is particularly easy to use. Would take time to get used to which switch is squelch and which volume	Reasonably strong microphone which fits comfortably in the hand, although it feels a bit square. Rather easy to push channel-change switch instead of PTT button (probably why there is a channel-lock switch). Channel-change switch will change one channel up or down when pressed once, if held in, it will scan through until released. Stylish
<b>Booklet and installation</b>	The booklet is well produced and facilities very clearly illustrated, making installation easy. It doesn't really mention the different locations or extension cable	A few examples of Japanese English. Booklet is clear on fitting and controls. Suspect booklet was originally intended for USA market. No full advice on remote locations	Adequate but not comprehensive, although fitting instructions are clear. Doesn't really help with different locations. Booklet doesn't explain mike facilities, although these are clearly indicated on box
<b>Audio quality</b>	Not bad considering size of speaker. Average through external speaker	Good through internal speaker. Poor through microphone speaker. Average through external speaker	Quite good through microphone, considering speaker size. Average through extension speaker
<b>Comments</b>	Comes complete with cradle for handset. Only set where you can switch over to extension speaker on microphone. Audible electronic click when the channels change – probably not intentional but helps you count channels without looking. Cable from microphone is rather short, especially as the connector plug is heavy and unwieldy to move	Only set to have integral speaker in remote unit. Edge connector appears secure and very unlikely to pull loose	Well-designed microphone and product is very well presented

### General comments

It's a shame that none of the booklets made much of the possible locations and how to approach the associated problems. It wasn't immediately obvious that all three sets would need extension cables for remote location – this could be very disappointing if you are eager to fit it and don't have the appropriate cable. Beware – you must have the correct 'brand' cable to match the set, as they are not interchangeable.



## Locating and installing the rig

Generally, you are going to want to put the mike within easy reach of the driver and front-seat passenger, so locating the mike is a matter of convenience and safety whilst driving.

The remote unit is a little more difficult to deal with but, of course, there is a certain amount of flexibility which is not available with an ordinary mobile rig. One word of warning before you decide on a location: **BE CAREFUL WHERE YOU DRILL.** Drilling through a petrol tank or through the exhaust will cause expensive and, possibly, dangerous damage! There are three main places to put the remote box and this depends on space and your main purpose for having such a rig.

### Under the seat

This is an easier place to put the unit, since it doesn't involve running cable through the length of the car. Check before you start drilling that there is sufficient clearance under the seat and that you can remove the seat and put it back properly afterwards!

If you are hoping to deter burglars, don't put the unit too far forward, as it may be seen from the front of the car.

To actually install the box, use the mounting brackets provided with the rig or a slide mount. If there is real shortage of space under the seat, you could skin your knuckles undoing the knurled retaining screws, so you

might want to consider using Velcro. This consists of two tapes, one covered in small hooks, the other in tiny loops. When pressed together, they cling to each other very strongly but can be easily separated by pulling apart. It is *very* strong (it has been used by the American space programme) so your rig won't slide around. The advantage of Velcro is that it can be glued to the remote unit with something like epoxy resin and glued, stitched or stapled to the floor covering without drilling the floor of the car. It can be bought from sewing counters at department stores or specialist shops.

### Near the driver

To an extent, this rather defeats the purpose of a remote CB if it takes up valuable dashboard space but you might want to fit the set in the glove box, parcel shelf or to the back of the transmission tunnel. Be careful that you aren't putting the rig in a location that gets hot from the engine or car heater or you may cook the components!

If you are fitting the rig in this area, do remember to check where the car wiring goes. If fitted in the glove box, check that the cable to the mike runs smoothly without snagging on steering wheels, etc.

### In the boot

This is a good location to defeat the light-fingered members of society and it won't take up any car interior space.

Don't put the unit above the exhaust where it can be cooked and don't screw into the petrol tank. Be wary of trying to mount the unit vertically against the back of the boot (where the back seat meets the boot) as this is often fibreboard and won't take the weight.

## Conclusion

You can see for yourself that there are different advantages and disadvantages to each set. None of the three sets went through a CB Radio Magazine Rig Test, so your choice must be based on the factors that are important to you and what represents best value for money. Compared to current rig prices, these sets are expensive, so make sure you know what you want from your rig before spending £100 or more on it.

All the sets in this article come from reputable, well-established companies and they all offer warranty and repair facilities.

On the whole, I'd recommend fitting an extension speaker for clarity, since all the speakers in the microphone are, of necessity, very small and can be a bit indistinct. If you aren't the tidiest of car owners, locate the set where it won't get clobbered by spare tyres, tins of de-icer, wheelbraces and cassette holders. If you are really trying to beat thieves, use a mag mount antenna and it can be locked in the boot with the detached mike unit.

**OCT** INTERNATIONAL LTD.  
**# 1** in *Electronics and Communications*

**ARE PLEASED TO ANNOUNCE**

**That an exclusive contract  
has now been finalized**

**K40<sup>TM</sup> HAS NOW APPOINTED  
OCT AS SOLE IMPORTERS**

**and distributors for the UK  
and Europe**

**At last the fabulous K40 service  
and guarantee can be given full  
back-up and support in Britain**

*For your local stockist contact*  
**OCT INTERNATIONAL LTD.**

**Tel: (0476) 76928**

**Telex: 377627 OCTEL G**

*Trade enquiries are welcomed*

# 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 \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# THE GOVERNMENT GAVE YOU 40 CHANNELS

## CB Radio Distributors Ltd will give you

### A LOT MORE

### AND — WE ARE HERE TO STAY!

Sole importers of:

# NEW



**£167.95** THE ULTIMATE SET...  
 Rec. Retail **NATO 2000**

40CH UK FM, 160CH AM/FM USB/LSB FCC, 10Kc SHIFT: FINE/COARSE, RF GAIN, DX: MID & LOC, ANL, NB, CB/PA, TONE: HIGH/LOW, POWER: HIGH/MID/LOW, ROGER BLEEP.

# NEW



**£69.95** Rec. Retail **NATO 40 FM**

VOLUME: ON/OFF, SQUELCH, RF GAIN, MIC GAIN, DIMMER, TONE: HIGH/LOW, ROGER BLEEP: ON/OFF, CH9: ON/OFF, MOD: NORMAL/CLEAR SWITCH, CB/PA, DELTA TUNE: + 0 -



**80AM 80FM FCC**  
**80USB 80LSB FCC**  
**40 UK Frequencies FM**  
**STALKER ST 9F DX**

**£115.00**  
 Rec. Retail

**STALKER ST 9F DX UK**  
 This set can be supplied operating on only 40 CH UK stamped with easy instructions how to convert back if you go abroad.



# COMMTRON

## 'NATO'



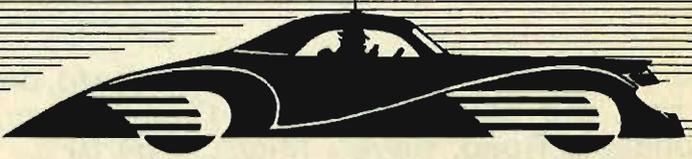
**80AM 80FM FCC**  
**40AM 40FM UK Frequencies**

**£69.95**  
 Rec. Retail

All our sets are legally imported, legal to own, duty and VAT paid, prices include postage, packing and insurance. NB—it is illegal to operate a rig that does not conform to MTP 1320 without a licence.



# Radio Distributors Ltd



Trade enquiries welcome to: **CB RADIO DISTRIBUTORS LTD.**  
 Unit 2, Government Industrial Estate, Union Mills, Isle of Man. Tels: 0624 851140 & 851180

# This Month's Competition



# Win a Maxcom Rig

Instead of skill, this month our competition requires a good sense of humour. If you have the ability to make our judges split their sides with laughter, you are well on the way to winning our fantastic prize.

Underneath we have named six well-known celebrities and we want you to think up an amusing handle for each of them. The judges will decide which is the funniest entry and their decision is final.



A Margaret Thatcher  
 B Elvis Presley  
 C Tony Blackburn

D Dolly Parton  
 E Adam Ant  
 F Arthur Scargill

Please write your six handles on a post card, don't forget your name and address and then post the card to Handles Competition, CB Radio Magazine, Tudor Works, Beaconsfield Road, Hayes, Middx. UB4 0FL.

The winner's name will be published in the first available edition of CB Radio Magazine.

# Home Office

## NEWS RELEASE

Telecoms Bill brings new wireless telegraphy provisions



The Telecommunications Bill, which was published on 19 November, includes some much-needed amendments to the Wireless Telegraphy Acts of 1949 and 1967, in order to keep a tighter grip on the uses and misuses of radio equipment in Britain.

The new measures have been put forward to rationalize and update the present penalty system for wireless telegraphy offences and to enable more effective enforcement of the law. Failure to do this would result in a total lack of respect for the efficient use of the radio spectrum.

### New police powers

One of the measures to be introduced will give the police, or persons authorized by the Secretary of State, powers to seize apparatus for the purpose of proceedings. This measure is given further significance by the introduction of powers for the Secretary of State to control the sale and possession of undesirable wireless equipment. Seen from the breaker's point of view, if you are caught with an unlicensed radio transmitter it will be confiscated and you will be prosecuted regardless of whether the equipment was legally imported or whether you were seen using the equipment or not. New powers have also been given to the police to arrest, without a warrant, for cases involving the illegal use of radio transmitters.

These measures have obviously been designed to suppress the availability of illicit CB equipment and to dissuade existing users to either switch to the legal system or stop transmitting completely. A move that has been forced by the pressure from 1,000 complaints a week from domestic TV and radio consumers.

### Stiffer penalties

Although the Telecoms Bill itself does not increase penalties for exist-

ing offences, the Criminal Justice Act of 1982 has raised the maximum fine for unlicensed use of a radio transmitter from £400 to £1,000.

This does not mean, however, that all cases will receive fines in two or three figures unless the offender is seen to be deliberately flouting the law. In fact, not all cases will end up in court. The new Bill gives the police the authority to apply to the court, by a civil procedure, for seizure of illegally-possessed equipment in cases where nothing can be gained by prosecution, i.e., where a person accepts that he should not have the equipment in question and does not appear to be flouting the law.

### Advisory Committee abolished

Under Section 9 of the Wireless Telegraphy Act of 1949, a special Advisory Committee had to be consulted about proposals to make new statutory regulations on the control of radio interference. It is not a standing body but when the Secretary needs to consult it, members are appointed from nominations provided by the Institute of Electrical Engineers. Under the new Bill, however, statutory regulations will be approved by other means, therefore the Advisory Committee will be abolished. This should speed up approval of such regulations and allow greater control over the radio spectrum.

### Dr. Merriman's Report is accepted

Recommendations put forward by the Merriman Review of the Radio Spectrum that TV bands I and III should be used for land mobile services and broadcasting ancillary services have been accepted by the Home Secretary, Mr. Whitelaw. The announcement in Parliament came following a question from Mr. John Wheeler, MP.

**Mr. John Wheeler** (MP, Paddington) asked the Secretary of State for the Home Department if he will make a statement about the recently-published report on the Independent Review of the Radio Spectrum under the chairmanship of Dr. Merriman about the future use of TV bands I and III.

**Mr. Whitelaw:** I am indebted to Dr. Merriman and his colleagues for producing so quickly their careful and thorough analysis of the issues involved.

The report recommends that TV bands I and III should be used for a combination of land mobile radio services and broadcasting ancillary services used for operational control and programme production, with priority given where necessary to land services. The report also recommends that the closure of the obsolete 405-line transmitters at present sched-

uled for completion in 1986 should be accelerated to allow those changes to take effect from the beginning of 1985.

The Government accepts the recommendation as to the future use of these bands and work will begin as soon as possible on the detailed planning of the bands for mobile radio use and on the development of a frequency allocation plan for the broadcast ancillary services. The possibility of giving the radio amateur service an appropriate allocation in the 50-54MHz band will be examined in the course of the detailed planning of band I as Dr. Merriman and his colleagues have suggested. The implications of accelerating the programme of closures of the 405-line transmitters are being urgently studied and a further statement will be made as soon as possible.

In the light of this decision, the provisional allocation of frequencies for radio telephones, which I announced on 15 June, 1982, can be confirmed. This spectrum will be progressively available in accordance with the notes issued by my Right Honourable friend, the Secretary of State for Industry, for the guidance of companies applying for licences to run a national radio telephone network.

# CLUB SPOT

## All Counties Convoy Club

We are the All Counties Convoy Club. We are a fairly new club and we operate every Thursday evening, from 7.30-10.30pm. at Coffee Hall Community Centre, Garraways, Coffee Hall, Milton Keynes.

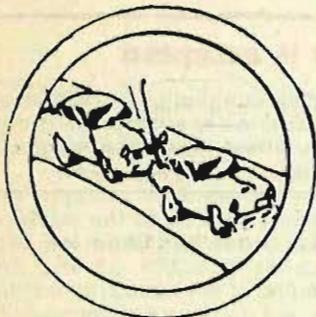
We are a family club - children are welcome provided they are accompanied by a responsible adult and we do have limited creche facilities for children under eight years of age.

The club provides a convoy activity each week, either a 'fox hunt' or a 'paper chase' or something of a similar nature in a designated area of Milton Keynes. Milton Keynes is a growing city and new estates and roads are appearing over night, so to speak. We are attempting to provide information with a bit of fun - the prizes are reasonable, too!

If you don't fancy the idea of a convoy, you can always stay at the base and chat to friends or play cards or darts. Refreshments are available all evening at very reasonable prices but they are all non-alcoholic! We are a family club!

Well, do join us if you can and thank you for your attention.

Linda Hughes (Club Secretary)  
Bletchley, Milton Keynes



## Gunners CB Club

A few serious breakers got together one night during a club session at a club that I will not mention.

We asked ourselves a few questions that I list below, with the answers.

**Question 1.** What are we actually doing here? Answer: Simply boozing!

**Question 2.** Couldn't we do this at our local without having to pay an entrance fee for the privilege? Answer: Yes - and also without having to travel!

**Question 3.** How many times have members of this club approached a Committee member (if they could recognize one) with suggestions for the benefit of the club? Answer: Dozens!

**Question 4.** How many suggestions have at least been discussed? Answer: A big zero!

Need I go on? No, I am sure that any

serious breaker will recognize the usual club pattern.

I have attended, to date, 14 clubs in SE London and only in two was anything to do with CB going on.

The answer I got from one Chairman was that his members were "on channel" all week and preferred to use the club night "to get away from CB".

Further discussion took place at our table (over a further round). What do we want from a CB club? Somebody sat on the 'Wally' and we got down to it.

This is what was decided.

A CB club, CB orientated, run by the members for the members.

So, the Gunners' CB Club was formed by seven serious breakers.

We meet at 8.00pm on Thursdays at the Ordnance Arms, Woolwich, SE18.

To get things off the ground financially, we have decided to have an annual membership fee of £2.00 and a nightly levy of 30p.

This will be for six months only, when we hope to drop the weekly levy but any decision will be made by the whole club.

We have a very small Committee of three, Chairman/Treasurer/Secretary, Public Relations and Entertainments.

Guests are admitted at a charge of 50p (refundable if the guest joins the club at the next meeting).

The only restriction that we have is that a member must be a serious breaker.

It will be interesting to see how we go along and if this letter is published in your Club Spot, I will write again in three months' time to give you an up-to-date report.

From all of us to all of you.

All the goldens.

10-10 till.

Captain Morgan (James Hornby)  
Woolwich, London SE18



## The British Sideband Network

After reading your magazine from Day One, I thought if about time I mentioned my radio club. Eddie and I got interested in CB back in 1980. We bought a Cobra 148 and on a trip to my mum's in Brighton, spoke to someone who is now one of our dearest friends. He introduced us to the seri-

ous side of radio and over the past three years has successfully helped both my husband and son, Ray (Silver Stick), through the Radio Amateur's Examination. When everyone was illegal, he was the only one who could stand up and hold a room full of people captive and make sense out of all the rubbish that was being spoken. It's no wonder The British Sideband Network is still the best value for money. If any of your readers want to belong to not only the oldest 'First' SSB CB radio club in the UK but a radio club that is progressive and has leadership that knows what it's talking about then for their own sake they should send a sae to the BSN HQ, 15 Carman Walk, Crawley, Sussex. If, like my family, you want to progress and learn just what radio is all about, it's pointless joining a club that sells you QSL cards, rubber stamps and sweat shirts but can only find wafflers when you ask a technical question.

Thank's for letting me have my say.  
10-10.

Jane and Eddie Kendall  
Worcester



## COBRA

As the newly-elected Secretary of our Club, I thought that I would drop you a line to let you all know we are still 10-8. The club welcomes all breakers, AM/FM/SSB, to its Thursday night meetings. The club meets in the Farcroft Hotel, Rookery Road, Handsworth and our Committee, Electric Warrior, Solitaire, Hippo, Sexy Sue, Burnt Toast and Grinder, are always on hand to greet new breakers and our many visitors. We have a very active DX section, we run raffles to help charities and a really great disco. There are always badges, stickers, cards and other goodies available on club nights. We have a good insurance scheme that is not too expensive. Membership to the club costs just £2.00, entrance fee is 25p for members and 50p for visitors. Any breaker who is passing through will be more than welcome to eyeball us and, hopefully, share a bottle with us. To all the club members and all our visitors, we extend a very big thank you.

73's and 51's.

Dennis (Condor) (Secretary)  
Handsworth, Birmingham

# Saucy Nancy does it anywhere with a WESTWARD PT!



## COMPLETE WITH:

- Internal maintenance-free rechargeable battery, up to three working days' use on high power.
- Internal protected 13.8V mains-regulated power supply.
- Internal battery charger (fully charged in 5 hours).
- Quick-release car mounting bracket.
- PL259 aerial socket, rubber duck antenna, shoulder strap, mains lead, etc.
- 4-watt, 40ch. UK spec. for use as home base, mobile and portable.

Available November 1982, further details, see  
**Westward Electronics**  
The Mill House, Tuckenhay, Totnes, Devon TQ9 7EL  
Tel. Harbertonford 336 or 370



## C.B. ACCESSORIES

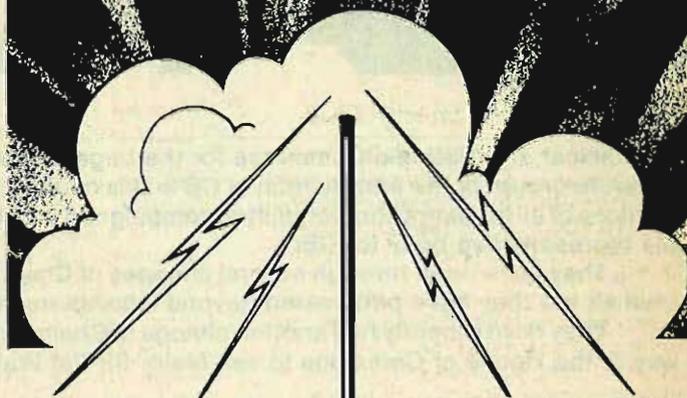
Broadband Filter.....	£9.50
Microphone Preamp with Roger Bleep ....	£10.00
Direction Finder Equipment.....	£18.00
Echo Chamber... enhanced modulation...	£59.00
25W Linear Amplifier.....	£16.00
60W Linear Amplifier.....	£35.00
Crow Bar..... overvoltage protection.....	£5.00
Half Watt Switch Box.....	£4.00
2A Power Supply.....	£12.00

All prices plus VAT

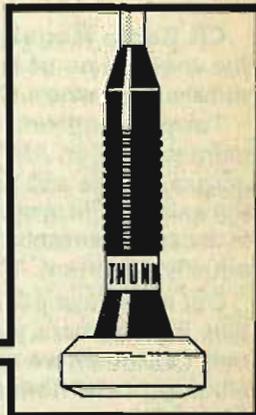
Send cheque or PO to:  
(payable to Tectel Wrekin DC)  
Halesfield 14  
Telford, Shropshire

Telephone enquiries to (0952) 581738 Ext 11  
Packaging and postage £1.50  
(Orders over £30 p&p free)  
DELIVERY WITHIN 21 DAYS  
Proprietor: WREKIN COUNCIL

# THUNDERPOLE II



- The Thunderpole II from the UK market leader of the fastest selling high-performance legal base station antenna.
- The highest star-rated antenna for Performance, SWR Adjustment, Installation and Value.
- Exciting new ribbed coil design with doubly encapsulated windings for maximum performance and all-weather protection.



- Tests indicate performance matching that of an illegal 5dB home base antenna.
- Base loaded coil on a single radiating element 1.5m long — pre-tuned and requiring no SWR adjustment.
- Precision-machined alloy base with 3 angled ground planes, each 2.67m long, with cross bracing and designed for maximum performance.
- Power 500W — Frequency 27Mhz — SWR 1:1.5 or less.
- Pole mounting base 1 1/4 ins. dia.
- Price just £25.00 incl. VAT plus carriage £3.95 and each antenna is individually guaranteed.

*"A well constructed, easily assembled and erected, excellent performance legal antenna with the added bonus that it is pre-tuned — that's how CITIZENS BAND magazine, September '82 described the fantastic...  
...THUNDERPOLE!"*

## FREEMAN & PARDOE LTD.

Tything Road  
Arden Forest Industrial Estate  
ALCESTER  
Warks. B49 6ES.

Phone: (0789) 762 673

©Freeman & Pardoe 1982



# FACE TO FACE

Natcolcibar, the National Committee for the Legalization of Citizens' Band Radio, was formed in 1979 to act as a pressure group for the introduction of CB in this country. Although not always universally regarded as reflecting the opinions of all breakers, the Committee campaigned very hard and was generally accepted by the authorities as being the representative body for CB.

They have been through several changes of Chairman and have not been exempt from personality and policy clashes but they have persevered beyond legislation, retaining their original name, to act as a consumer group.

They have recently had another change of Chairman and Tony Bevington, the new Chairman, called on us, on his way to the House of Commons to see Major Sir Pat Wall, to talk about Natcolcibar.

**CB Radio Magazine: Tony, what do you see as the main aims of Natcolcibar and are those aims different to when the Committee was formed?**

**Tony Bevington:** I see our main aims as the implementation of an AM/SSB/FM FCC frequency system across Europe and the improvement and protection of the existing FM system in this country. I don't think one is more important than the other - they are both equally important.

Our aims have adapted with circumstances - at one time Natcolcibar's purpose was to get a legal CB system. Obviously, we have that now and we accept that, although its far from perfect, we hope we are the voice of all CB'ers and, as such, we reflect all points of view.

**CBRM: Natcolcibar's reputation is for fighting for the AM breaker. Do you think this has prejudiced the FM breaker against Natcolcibar?**

**TB:** Yes and it's a great shame. The name still presents a bit of a problem but we are now getting a lot of FM CB clubs joining us. They have realized that our aims are basically the same and that there is no reason to fight each other. In getting over this, we can only try to prove by our actions that we are taking *both* sides. The fight between AM and FM is ludicrous - it should be a fight for CB as a whole; to make it work and to make sure it causes no problems to anybody.

**CBRM: Is Natcolcibar disappointed with the first year of legal CB?**

**TB:** Yes, I'm afraid so. As we predicted, it has become a toy with no means of protection from the misuse and vulgarity that can be heard on channel. We put the blame for CB's ineffectiveness firmly at the door of the Home Office. They flew in the face of any advice and the examples given by other countries. They had the ideal opportunity to make something to be proud of but there is no way we can be proud of what we have now. I have been to other countries with Natcolcibar and have seen other CB systems in operation and I am embarrassed by what we have in this country. We are firmly committed to help clear the airwaves.

**CBRM: How do you propose to do this?**

**TB:** In two ways. Firstly, to lobby the Government for tighter restrictions on CB use and stricter penalties for offenders and, secondly, to pressure the Government to take their responsibilities for CB seriously, earn the money they take and act against the high level of abuse. In no way do we want to see self-appointed vigilante groups trying to deal with the problem.



**CBRM: In asking for tighter restrictions, aren't you going against the principle of CB?**

**TB:** No, I don't think so. In having tighter restrictions, effectively you give the majority a greater freedom, since they are free to use the system without hindrance. We are asking for the introduction of an age limit for licence holders, as effectively this doesn't limit the age of use but places the legal responsibility on the licence holder to see that his set is used properly and under supervision. We are particularly asking for recognition of channel 9 and its protection and the introduction of official call signs. Although call signs are open to misuse - look at amateur radio - they could act as a curb to some people. In reverse, we are asking for the lifting of the farcical antenna restrictions.

CB can only earn respect when the true potential is seen and at the moment no one can see round the mess there is on channel.

**CBRM: What do you see for the future of CB?**

**TB:** Well, in the short term, its improvement and better protection but in the long term, the adoption by this country of an 11-metre (27MHz) AM, SSB and FM Eur-



# Natcolcibar

The Voice of Citizens Band radio users

The U.K. affiliate of the European CB Federation and The World CB Union

open standard citizens' band system. That's what we and the European CB Federation are fighting for. Our main interest is to get 27MHz working properly. We have nothing against 934MHz but I feel we have enough on our plates with 27MHz.

**CBRM: Isn't another system just going to add to the confusion?**

**TB:** Yes, inevitably it's going to cause problems in the beginning, especially as it's chaos already but if it's approached sensibly there will be protection for the present users.

**CBRM: What sort of protection?**

**TB:** We are asking for a two-year transitional period so the UK FM breaker isn't presented with a sudden ultimatum.

**CBRM: What chance of success do you think a Euro CB spec stands?**

**TB:** We hope that it will go before the European Parliament for ratification in March 1983. The constitution of the Parliament means it ought to be accepted but member nations can appeal against it if they claim it would be a danger to national security. It would, obviously, be up to CB groups to claim this isn't so.

In terms of acceptance, the Europeans are moving towards it, anyway, as countries are changing their CB specifications. Within a few years there's a good chance that everyone will have moved over to it.

**CBRM: But what about Britain?**

**TB:** It could be a hard fight to get the authorities to accept it. The British Government is committed to adopting a CEPT Euro CB spec inasmuch as Timothy Raison has said several times that the long-term aim is compatibility with Europe. It must succeed in the end.

I think British breakers will accept it, too. Even if, in the beginning, we don't get the full range of frequencies and modes asked for, we will carry on fighting for them, so the British breaker can only gain by getting more channels. I think they will be willing to give up what they have if they are offered something better. As I said before, we are determined to protect the interests of the present user until the change-over is complete.

**CBRM: But what about manufacturers? Are they likely to want to manufacture for yet another European spec?**

**TB:** I'm sure they will. We would, obviously, prefer to see British manufacturers getting a look-in. If the Government had any sense, it would forbid the importation of Far Eastern equipment and help British industry. If it doesn't, it will be a very attractive market for the Far East, who have been geared up for 27MHz on FCC frequencies.

**CBRM: In the past, Natcolcibar has been fairly low key, particularly since legalization. Do you now feel the need for more aggressive campaigning?**

**TB:** Definitely. We and all CB'ers must put pressure on the European Parliament and local Members of the European Parliament to accept CEPT proposals. Up to now the legal breaker has had no cause to fight but he has now and he needs to become familiar with the name of Natcolcibar, as we are fighting for him. If we are going to fight for breakers then they should support us. CB'ers must join together, regardless of AM or FM, for the common good.

Many breakers and clubs have spent a lot of time, money and effort on charitable events. In the beginning these were done to give CB a better image but you can't say that it has worked - people don't respect CB more because of the charitable work. If only breakers would focus the same efforts into fighting for a better system! Obviously, we would like as many clubs as possible to join Natcolcibar, to strengthen our position.

**CBRM: How much, in your opinion, do the Government and authorities listen to Natcolcibar?**

**TB:** A fair bit. We get a good response from local MP's and we are regarded as the only national body actively representing CB. We are concerned that there are some organizations and individuals who claim to represent CB in this country, even as far as Parliamentary working parties, who do not have the support behind them and, as such, are falsely representing breakers.

We, obviously, have a good relationship with Major Sir Pat Wall, MP, who is President of Natcolcibar. He, obviously, represents our views in Parliament but it's not always easy to have a good relationship with the authorities when we feel that they have perpetrated a vast deception on the community.

**CBRM: So, finally, what does the future hold for Natcolcibar?**

**TB:** For the short term, I think I have already outlined our objectives. Further in the future, when CB is working properly, I see us as acting as a consumer protection group, dealing with complaints, maintaining the system and fighting, if necessary, for more. There are things that need doing badly but aren't amongst our immediate campaigns. Most important amongst these is the implementation of the fitting of proper filters to TV and hi-fi equipment which has been badly neglected by both manufacturers and Government. Eventually, I could see us being involved almost in a political situation. We have worked out that CB'ers (either legal or illegal) make up 6% of the population, so that's a lot of voting power. The more CB'ers shout, the more they will be listened to.

**CBRM: Well, thanks very much for your time, Tony and good luck for your meeting with Sir Pat.**

*Any club or individual wishing to contact Natcolcibar should write to: The Secretary, Natcolcibar, 430 West Wood, Windmill Hill, Runcorn, Cheshire WA7 6LL.*

**BIG DISCOUNTS  
MAIL ORDER**

# Calling

BREAK ONE FOUR FOR A COPY!

BREAKER ASKING FOR  
A COPY, YOU'VE GOT  
GUITARMAN HERE  
C'MON!

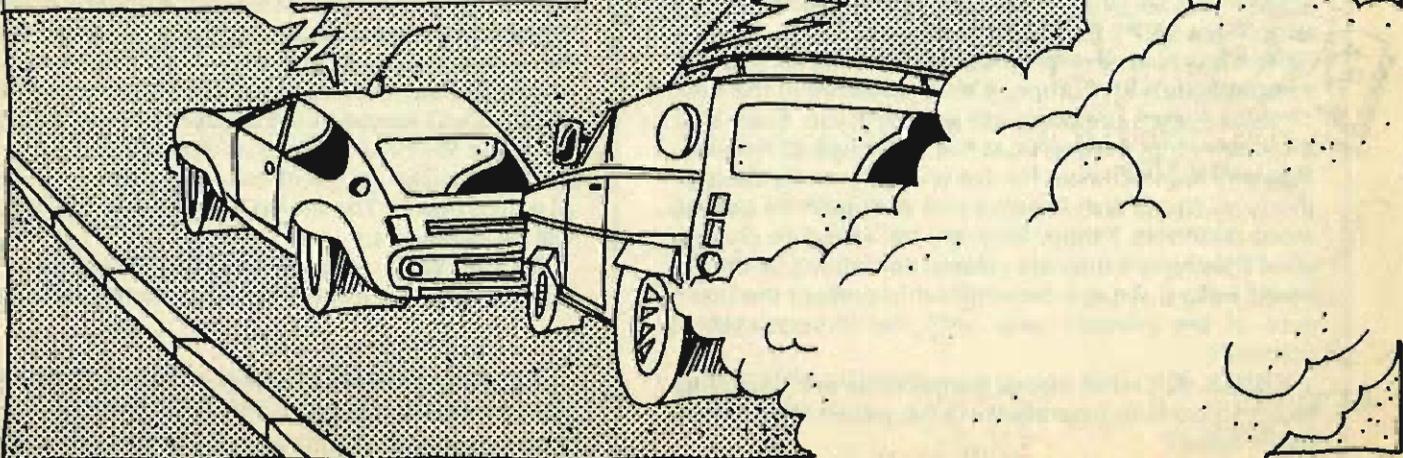
HI THERE GUITARMAN,  
KILROY HERE... HAVE YOU  
HEARD ABOUT THE  
NEW-BREAKER-ONE  
FOUR DISCOUNT CLUB?

...FREE MEMBERSHIP CARD... FREE  
SEW-ON-BADGE... FREE I'M A  
MEMBER OF THE BREAKER  
ONE-FOUR DISCOUNT CLUB  
BADGE...

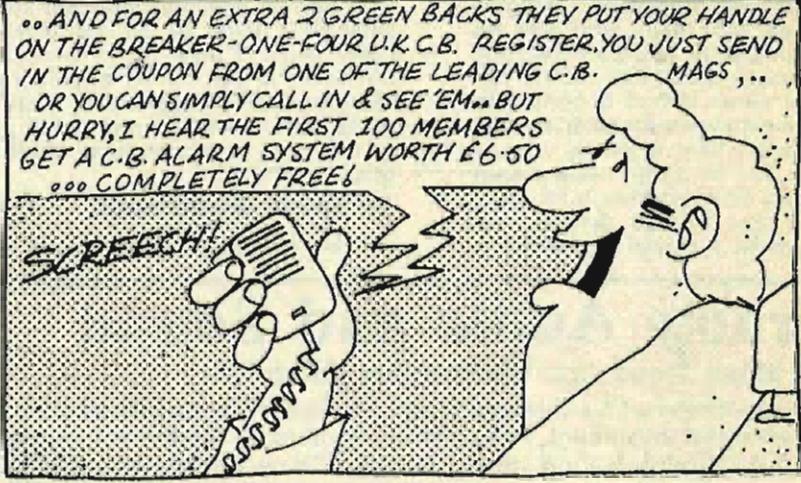
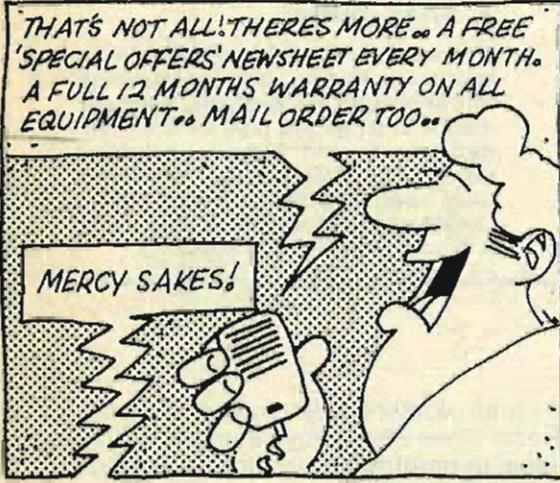
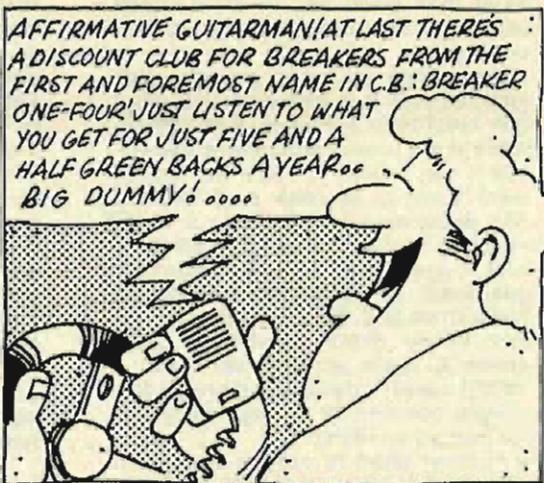
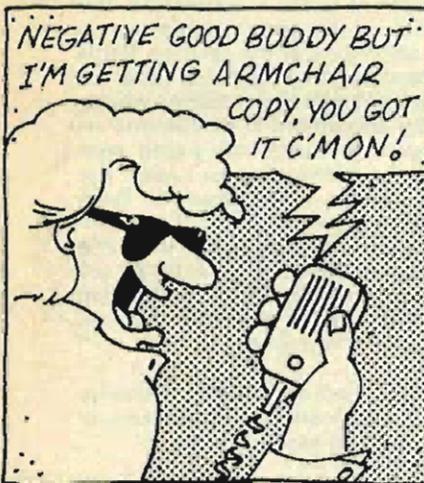
BACK OFF THE HAMMER THERE GOOD  
BUDDY, ARE YOU SOME KIND OF DIPSTICK?  
NO C.B. STORE GIVES AWAY THAT MUCH  
DOWN AND ON THE  
SIDE!

THATS WHERE I'M GOING NOW  
GUITARMAN...  
WHAT'S YOUR 20?

I'M OVER YOUR SHOULDER GOOD BUDDY, I'M OVER  
YOUR SHOULDER...  
10-10 TILL WE DO IT AGAIN!



# all Breakers





130 HIGH ST., EDGWARE, MIDDX.  
TEL: 01-952 8860/8185/7488.

OPEN  
9am-6pm Mon.-Sat.



**SEND TODAY!**  
REMEMBER THERE'S  
A FREE C.B. ALARM FOR  
THE FIRST 100 MEMBERS

*London's first and foremost CB store.*

To: Breaker-One-Four  
130 High St., Edgware, Middx.  
Telephone: 01-952 8860/8185/7488

I would like to join the  
Breaker-One-Four C.B. Discount Club and  
enclose my annual subscription of £5.50.

My Name is: \_\_\_\_\_

My home address is: \_\_\_\_\_

My Tel. No. is: \_\_\_\_\_

PLEASE ENROL MY HANDLE IN THE 'BREAKER-ONE-FOUR' UK C.B. REGISTER FOR WHICH I ENCLOSE AN EXTRA 2 GREEN BACKS.

CB12

# CB RADIO guide to SERVICE

The repair and service of CB equipment is an area that has been largely neglected in this country. Part of the blame for this must, unfortunately, fall squarely on the shoulders of the manufacturers and importers of equipment conforming to the British specification, who have taken hardly any steps to ensure that their product will be reliable or even to supply the necessary service information. The poor design of many Far Eastern transceivers creates enough of a problem without having to work without an accurate circuit diagram or tuning guide.

In the days when all breakers were using illegal equipment, it was quite understandable to experience such difficulties, especially as most reputable service workshops would not touch CB equipment for fear of being severely reprimanded or having a slur cast upon their professional integrity. This meant that repair work was frequently delegated to the local rig doctor, a peculiar breed that mainly consisted of either retired or redundant service electricians who did the work in their spare time. A few rig doctors, however, had no professional experience apart from knowing 'a bit about electrics' and carried out all their repairs using a cheap multimeter, a

screwdriver and a soldering iron. Invariably, these cowboys did more harm than good and in most cases caused irreparable damage to the equipment.

Regardless of what anyone else may tell you, it is impossible to carry out electronic servicing and repairs without the proper equipment, especially if you intend to keep the equipment working at peak performance. This equipment must include: a 13.8V regulated power supply, preferably with a capacity of 5-7 amps continuous load; an analogue multi-range volts, amps and ohms meter; a dummy load of 50 ohms capable of dissipating 20 watts; an RF power meter; a VSWR meter; a deviation meter; a frequency counter; an RF signal generator and an oscilloscope.

Another point to note is that even with all this expensive equipment, if your service engineer does not know what he is doing, he can still make a nasty mess of your rig. It is always advisable to opt for an engineer or company of engineers with professional qualifications and who are members of a professional association.

## In-house workshops

Every electrical item sold over the

counter in Britain is subject to a statutory 12 months' parts and labour warranty against faulty manufacture, the responsibility for which falls squarely on the shoulders of the retailer. Some wholesalers and importers have an arrangement with their retailers whereby faulty equipment is exchanged on the spot, the faulty set being sent back to the wholesaler for repair. For this purpose, they have a fully-equipped workshop and a full- or part-time service engineer to carry out the work. These 'in-house' workshops are also employed to check equipment over before large numbers are released onto the market.

★Do not expect to get free warranty repairs if you or anybody else has previously tried to mend the set.★

## A brief guide

The remainder of this article forms a brief guide to a few of the companies who specialize in CB repairs. Relevant details such as the type of work carried out, minimum charge, equipment used and professional experience have been included to enable you to decide where to take your equipment if it goes wrong out of warranty.

---

## Kernow Audio and Sound

50-54 Mina Road, St. Werburghs, Bristol 2

This Bristol-based wholesale and retail distributor has its own service and repair workshop, employing two full-time electronics engineers. Their extensive range of equipment includes Racal Dana frequency counters, automatic modulation/deviation meter, BK 1040 CB service meter and 2040 signal generator, oscilloscopes, power, VSWR and field strength meters and even a valve checker. Kernow will take on repairs, service and modification to any CB equipment and claim to be able to convert practically any AM set to FM. A full range of components are held in stock and an estimate service is available.

---

## G. H. Wilson & Co. (Shilton) Ltd.

Hosiery Street, Bulkington Road, Bedworth, nr. Nuneaton

Specialists in the repair and service of CB, amateur and PMR equipment, using the following test gear: a 50-meg oscilloscope, a 1ppm 600m frequency counter, a Marconi deviation meter and a Marconi signal generator. Manufacturers' modifications and conversions to legal FM are taken on and there is no minimum charge unless an estimate is required (£5.00). The company was established in 1948 and has four years' experience in CB repairs. Bulk repairs are also taken on for wholesale companies. All the necessary components are held in stock.

---

## The Fixers

The Shop, Kingston, Fochabers, Moray

Dick Boyd has had 22 years' experience as an electrical engineer with the RAF but has now turned his hand to retailing and repairing CB equipment. He has a fully-equipped workshop complete with a Hewitt Packard spectrum analyser and keeps a stock of the necessary components. Dick will take on all repairs and modifications, including sets that have been tampered with by so-called rig doctors and aims to provide a fast, reliable service.

# Telecomms

**189 London Road, North End, Portsmouth**

Telecomms wholesale to more than 500 shops in the south of England, as well as running their own retail shop in Portsmouth. In order to give a reliable back-up service to their customers, both wholesale and retail, they employ five fully-qualified electronics engineers. The two workshops are equipped with oscilloscopes, signal generators, spectrum analysers, audio signal generators, frequency counters, deviation meters and modulation meters, not to mention a host of VSWR, watt and field strength meters. No minimum charge is applied and an estimate service is available. Most repairs to CB and amateur radio are completed within 24 hours.

---

# Gadgets

**6 Windsor Street, Uxbridge, Middx.**

Though basically a CB retailer, Gadgets of Uxbridge has a fully-equipped workshop and a part-time but fully-qualified electronics engineer. The workshop is fully equipped with a frequency counter, an oscilloscope, a signal generator, a deviation meter and a modulation meter. Gadgets has been selling and repairing CB since November 1981, although its parent company has been trading for over 10 years. As far as servicing goes, no minimum charge is imposed and prices are kept to a reasonable level.

---

# East Coast Aerials (Communications Division)

**2 Anson Road, South Town, Great Yarmouth**

East Coast Aerials has, since 1976, specialized in the erection of just about any type of aerial for TV, radio, amateur and PMR use. At the time of going to press, however, the newly-formed East Coast Aerials (Communications Division) was making plans for the setting up of a Home Office-approved land mobile radio service workshop, with the intention of taking in repairs and servicing for all types of radio communications equipment, including CB, amateur and PMR. All the necessary equipment, including oscilloscopes and signal generators, should now have been purchased. As for pricing and policy, breakers in the East Coast area will have to give East Coast Aerials (Communications Division) a ring.

---

# Catwhisker's CB Centre

**25 Chatham Street, Reading, Berks.**

Catwhisker's CB Centre, of Reading, Berks., has its own fully-equipped workshop which houses an oscilloscope, a frequency counter, deviation, watt and VSWR meters and a signal generator to mention but a few. Its fully-qualified engineer will take on all repair and service work, including the addition of special items such as its own cat call (selective calling) units. A minimum service charge of £2.00 is imposed and a pre-set cost limit is usually ascertained. A tuning service is also available where the transceiver is tuned for maximum performance possible under MPT 1320. A few of the most popular components are also kept in stock.

---

# Llanelli CB Centre

**21 Station Road, Llanelli, Dyfed**

Based in the heart of South Wales, Llanelli CB Centre distributes wholesale CB equipment to more than 25 retailers across the country. They also have their own fully-equipped CB repair workshop and a full-time engineer, taking on service, repair, modification and conversion work. No minimum charge is imposed and if the equipment cannot be repaired, no charge is made. A full range of the most common components are kept in stock to keep the turnaround fast.

---

# Equestrian Electronics

**3 Llugwy Road, Kinmel Bay, Rhyl, Clwyd**

This company, based in Rhyl, claims to have the best-equipped workshop in the North Wales area. They specialize in the repair and modification of legal FM equipment. Test gear includes: a Bird 43 RF power meter, a deviation meter, a frequency counter, signal generators and a dual beam oscilloscope. In addition to this, every set is finally checked by computer and an exact readout of the performance is supplied to the customer. Equestrian Electronics has been in business for five years and has been handling CB equipment since November 1982. All the necessary components are kept in stock and there is no handling charge.

---

# Zippy Electronics

**8 Spring Close, Bradpole, Bridport, Dorset**

This company offers a service facility for all electronics goods including CB radio and has the following equipment: an oscilloscope, a bench meter, a frequency counter, a signal generator and a host of VSWR, deviation and watt meters. All Zippy's staff are City and Guilds qualified and take on service, repair, conversion, modification and installation work. A £7.50 handling charge is imposed if the work is not completed by Zippy and a large range of components is kept in stock.

# D. F. Browne Ltd.

418 Portland Road, Hove, Sussex

D. F. Browne is a company of fully-qualified radio and TV engineers, established in 1959, using the following test equipment: an oscilloscope, a frequency counter, a signal generator, an Avo meter and all the necessary SWR deviation and RF power meters. A minimum workshop charge of £9.00 is imposed and £4.75 is charged for an estimate. All service, repair and installation work is carried out and a large stock of components is kept.

# Micro Comms

372-374 George Street, Aberdeen

Micro Comms specializes in the repair and service of CB and amateur radios, computers and other electronic goods. Proprietor Alex Allan is a radio amateur of long standing (GM32BE) and former member of the RSGB Council and has a fully-equipped workshop complete with an oscilloscope, an RF probe, a watt meter, a modulation and deviation meter, a frequency counter and a VSWR meter. A large range of components are kept in stock and Alex has been trading for four years. No handling charge is imposed.

# K. P. Parker Electronic Services Ltd.

Pitts Store, Bishopstone, Salisbury, Wilts.

K. P. Parker specializes in the sales and service of radio communications equipment and is prepared to repair any brand of CB equipment on the market. Keith Parker has converted hundreds of FCC rigs to UK operation without any trouble and guarantees his conversions will be equal to or better than a commercial equivalent or the money is refunded. Keith has been using CB since 1963 and his fully-equipped workshop includes a frequency counter and an oscilloscope. A large stock of components is kept and KP has been trading for four years.

# Car Radio Fitting Specialists Ltd.

17 and 23 Truro Road, St. Austell, Cornwall

This company has handled CB repairs since November 1981 and will repair any unit providing service information and components are available. A large stock of common components is kept and their fully-equipped workshop includes a frequency counter and SWR, watt and deviation meters. CRFS is also prepared to retail components separately. Service and repairs only are carried out and a minimum charge of £3.45 inc. VAT is charged.

# R. W. Pollock & Co. (Radio & Television) Ltd.

254 Barkerend Road, Bradford 3, West Yorkshire

This company offers a radio transceiver repair service to both amateur and CB customers. The company has been established for 22 years and is an official Yaesu-Icom dealer. Its fully-equipped workshop includes two oscilloscopes, a Marconi signal generator and various deviation, VSWR, RF power and modulation meters. All work is carried out by C&G-qualified engineers and is restricted to installation and repairs. A non-returnable £4.00 minimum handling charge is imposed and a range of components is held in stock.

# J. A. Perez

91 Perowne Way, Sandown, Isle of Wight

Mr. Perez specializes in electronics service and repairs, giving particular attention to CB, repairs, conversions and modifications. He has all the necessary equipment including an oscilloscope, a signal generator and all the VSWR, deviation and RF power meters. He also holds a large range of components and has been trading for six years.

## Important addresses

If you have any problems getting your rig serviced under warranty by your retailer, a letter to the distributor for that equipment may often be productive. Listed below are the distributors of some of the most popular rigs.

**Audioline** Harry Moss International Ltd., 51-52 Heming Road, Washford Industrial Estate, Redditch, Worcs.

**Amstrad** Amstrad Electronics, 1-7 Garman Road, London N17 0UF

**Rotel** Rotel Hi-Fi Ltd., 2-4 Erica Road, Stacey Bushes, Milton Keynes, Bucks.

**Shogun** Sunrise Products of Japan, Colliers Farm, Frieth, Henley-on-Thames RG9 6NR.

**SMC** South Midland Communications, SM House, Osbourne Road, Totton, Southampton SO4 4DW

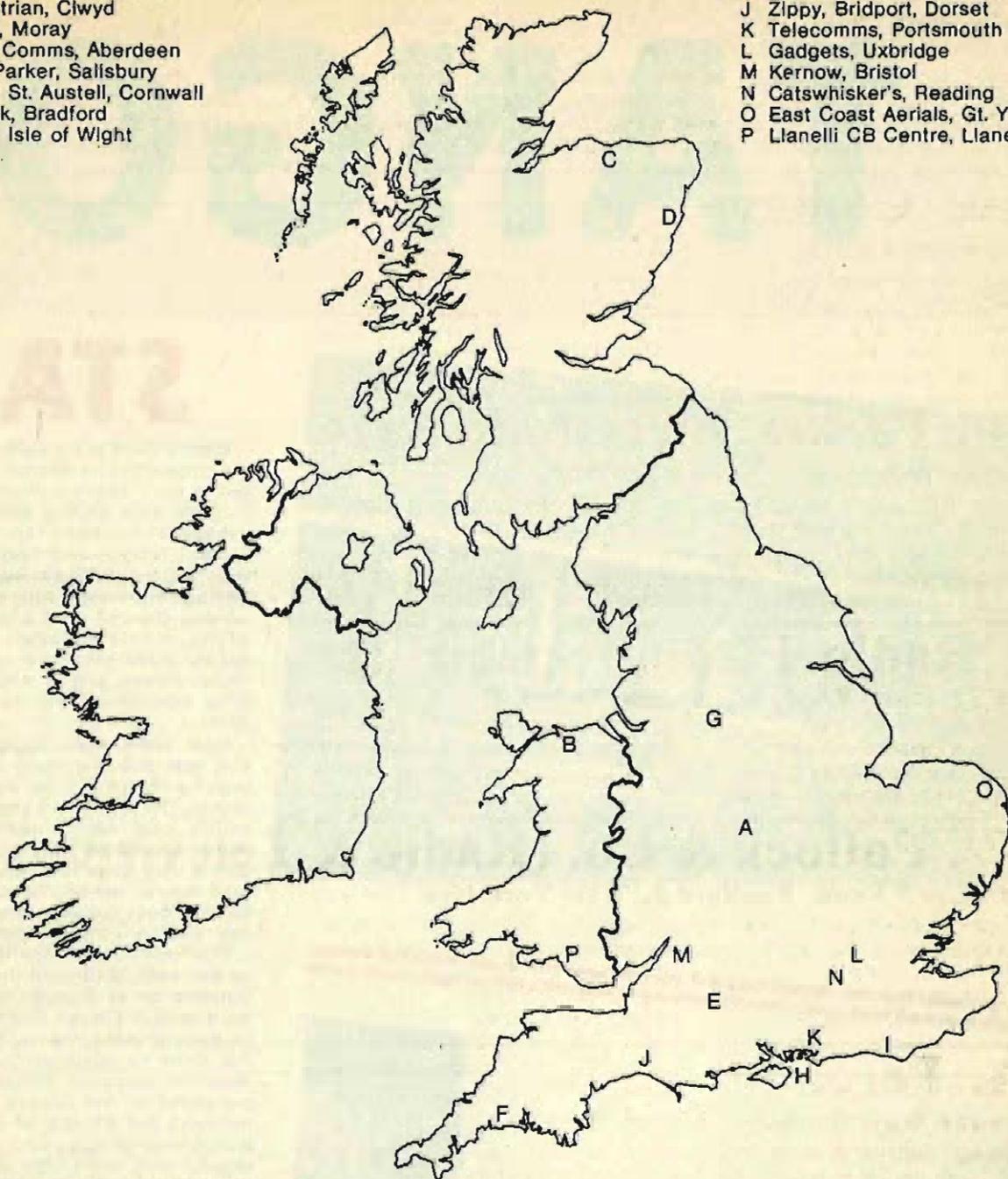
**Murphy** J. J. Silber Ltd., Engineers Way, Wembley, Middx. HA9 0EA

**Radiomobile** Radiomobile, 50 Oxgate Lane, Cricklewood, London NW2 7JB

**Realistic** Tandy Corporations, Tameway Tower, Bridge Street, Walsall, West Midlands WS1 1LA

A G. H. Wilson, Nuneaton  
 B Equestrian, Clwyd  
 C Fixers, Moray  
 D Micro Comms, Aberdeen  
 E K. P. Parker, Salisbury  
 F CRFS, St. Austell, Cornwall  
 G Pollock, Bradford  
 H Perez, Isle of Wight

I D. F. Browne, Hove, Sussex  
 J Zippy, Bridport, Dorset  
 K Telecomms, Portsmouth  
 L Gadgets, Uxbridge  
 M Kernow, Bristol  
 N Catswhisker's, Reading  
 O East Coast Aerials, Gt. Yarmouth  
 P Llanelli CB Centre, Llanelli



**Binatone** Binatone International, Beresford Avenue, Wembley, Middx.

**Coft (355 only)** OCT, 407 Lordship Lane, London, N17

**Comtrom, Stalker, Nato** CB Radio Distributors, 831 Mansfield Road, Nottingham WGS 3GF

**DNT** Radlotechnic Ltd., Grove View, Bel Royal, St. Lawrence, Jersey, CI

**Grandstand** Beeware Ltd., Ripon Way, Harrogate, N. Yorkshire HG1 2AU

**Fidelity** Fidelity Radio PLC, Victoria Road, London NW10 6ND

**Harrier** Dixons, Dixons House, 18-24 High Street, Edgware, Middx. HA8 7EG

**Harvard** Harvard International, 14-16 Thames Road, Barking, Essex

**Icom** 24 Alfric Square, Off Maxwell Road, Woodston Industrial Estate, Peterborough PE2 0JP

**Maxcom** AM & T, 9a Olds Approach, Tolpits Lane, Watford, Herts. WD1 8QR

**Midland** Plustronics Limited, Hempstalls Lane, Newcastle, Staffs. ST5 0SW

# TANGO C

## STANDI



Early morning at Slough Town Hall. The building is dark and quiet, apart from security patrols and cleaners. On the second floor, the Traffic Control Centre is brightly lit and busy as the staff get ready to sort out the day's jams.



8.30am. and the pace is hotting up. Although there hasn't been any major incidents, a set of traffic lights are out of action and are causing delays. The CB is in action with reports on minor delays throughout the town.

Eight o'clock in the morning and half the population of Slough is trying to get to work. Many of them are sitting in their cars staring glumly up the exhaust of the stationary car in front. Tango I, Tango II and Highwayman are watching the traffic too but they aren't getting carbon monoxide poisoning or cursing the red light ahead. They're sitting in relative peace and quiet, watching the cars build up on a television screen and, if necessary, directly controlling that obstinate red light.

Four years ago, Slough Corporation was the first local authority to install a compact urban traffic control centre. The town has a large shopping centre, local industry and a high commuter population which combines to give a very busy road system during rush hours; especially as there are three access roads to the M4 motorway leading from the town.

The Traffic Control Centre is located on the second floor of the Highways Department at Slough Town Hall, in the centre of Slough. One of the major sources of delay, the A4, runs outside the Centre's windows but for more effective study of delays, the GEC computer in the Centre constantly monitors the 43 sets of traffic lights throughout Slough. This produces a regular print out on the status of the lights and the volume of cars passing through. Some road junctions are directly monitored by closed circuit television (CCTV).

The control room has a band of sophisticated electronics which houses the traffic computer, remote controls for the CCTV cameras, four monitoring screens, a video cassette recorder for playback of filmed traffic problems, a second micro computer for working out traffic calculations, a direct phone link to the emergency services and a large street plan of the area with indicators for density of traffic flow, traffic lights out service and those lights directly controlled by the Centre. Tucked amongst this equipment is a Cybernet rig and base microphone.

Two of the three control team members were interested in CB and installed a rig last December at the Control Centre to maintain contact whilst staff were checking traffic lights. The team quickly found that the

# CONTROL

## NG BY

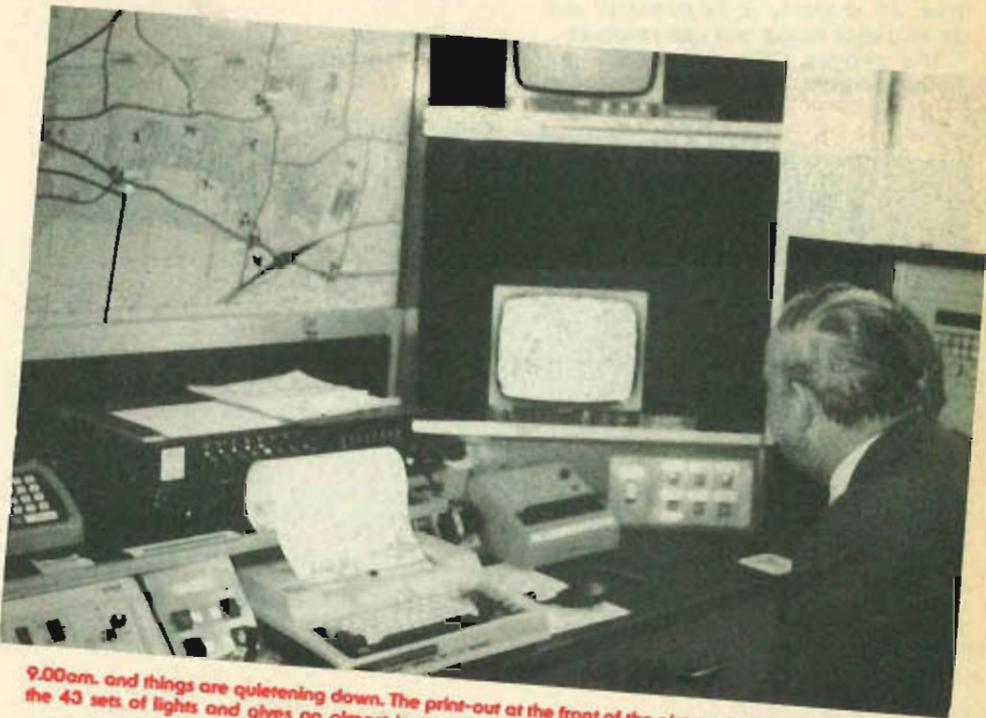
rig was far more useful than anticipated and that they were getting traffic updates from mobile breakers and getting requests for directions. The third team member had also been converted and bought himself a rig.

After the 'powers that be' had seen the rig in operation, they paid for the rig and gave it the Corporation's blessing. It's now an integral part of the set up and is used extensively by the Centre in its day-to-day operation. There is a constant stream of information relayed into the Centre on channel 18, which helps in the planning of traffic control, allows for immediate adjustment of traffic lights and enables the control team to give up-to-the-minute traffic reports to mobile breakers. They also give detailed travel directions to drivers, especially those with heavy goods vehicles, since it causes less disruption to traffic flow for the Centre to give details than for the lorry to stop on the A4 and ask passers-by for information.

CB has proved to be such a success that the company supplying the traffic control system now offers CB as an optional extra to authorities purchasing the system. At Slough, the rig doesn't get used for the evening rush since it is too heavily used by younger breakers home from school. That aside, Tango Control has very good co-operation from local breakers and works in conjunction, where possible, with Sierra Control, a group of local breakers from Maidenhead, who provide a traffic service in their area. The rig is not generally used during the day unless there is a blockage on the M4 which needs the traffic signal sequences in Slough itself altering to prevent congestion.

Slough Traffic Control Centre would like to remind breakers that if they need traffic directions or wish to report conditions, could they give precise instructions, e.g., "I am on the M17 motorway, heading west, just past Junction 10, with the Midway Hotel on my right".

They would also like to say "Thanks" to Rusty Rivet, Bathtub, Highway Harrier, Grease Monkey, Calypso, Royal Falcon, Sunray and Father Goose for their help.



9.00am. and things are quietening down. The print-out at the front of the picture details the traffic flow at the 43 sets of lights and gives an almost instant update on the traffic situation.



9.30am and the team have done their job. The majority of people have got to work and the roads are almost empty. Only the occasional lost lorry driver or incident on the M4 will bung up the road now, until the evening rush hour.

# Readers Write

Dear Sir,

I have been a reader of your mag for some time. I have had great interest in reading some of your letters featured.

It is with envy when I see the CB equipment which is available to you in the UK. Here in New Zealand, we run 11 channels AM at 2 watts output from 26.425MHz to 26.675MHz and 26.500MHz being our call channel.

The serious CB'er here does not bother running NZ-built equipment, it

is utter rubbish. He buys himself an overseas set and converts it to NZ frequencies.

CB has been legal here since approx 1965. So, as you can see, I think you guys have got it made over there for the amount of time you have been legal.

Regards,

Len Ellis (PM/1692, PM/1743)  
Palm North, New Zealand

like those above who claim that all the wallies are young people. People who try and split AM and FM apart are doing more harm than any idiotic wally ever did. CB is going through a bad spot and everyone should work to make it stronger. Arguing over what sort to use is almost as silly as arguing over what make of ambulance takes you to hospital. So I will end by asking those I named above to get on with using the system they prefer and leave others to use what they want.

Yours faithfully,

Firefly (aged 14)  
Puckeridge, Herts

*Out of the mouths of babes...—Ed.*

Dear Sir,

On reading Videostar's article in the December issue of CB Radio Magazine, I felt that I just had to reply, being an advertiser in the same magazine.

I would like to draw your attention to the Westward PT, which is not only a base station with high quality power supply but also includes a high-capacity rechargeable battery and charger in a case not much bigger than a mobile and priced at the average base station price - no room for a hamster there and very little heat!

Yours faithfully,

M. R. Stanley  
Westward Electronics  
Totnes, Devon

*Must be read slowly*

Dear Sir,

I, as an early fan of CB Radio Magazine (Got issue 1 from Mura's in Hendon, they were very reluctant to part with it at the time as it was their stock copy), would like to follow up your "Things Breakers Say" paragraphs with

Part 1. "Overheard On Channel".  
"I get chronic bleed over around here but you won't get it because you're further away from me than I am from you."

That was Part 1. Read on if you dare.  
Part 2. "Suggestions Department" for your magazine (Sorry, our and your magazine).

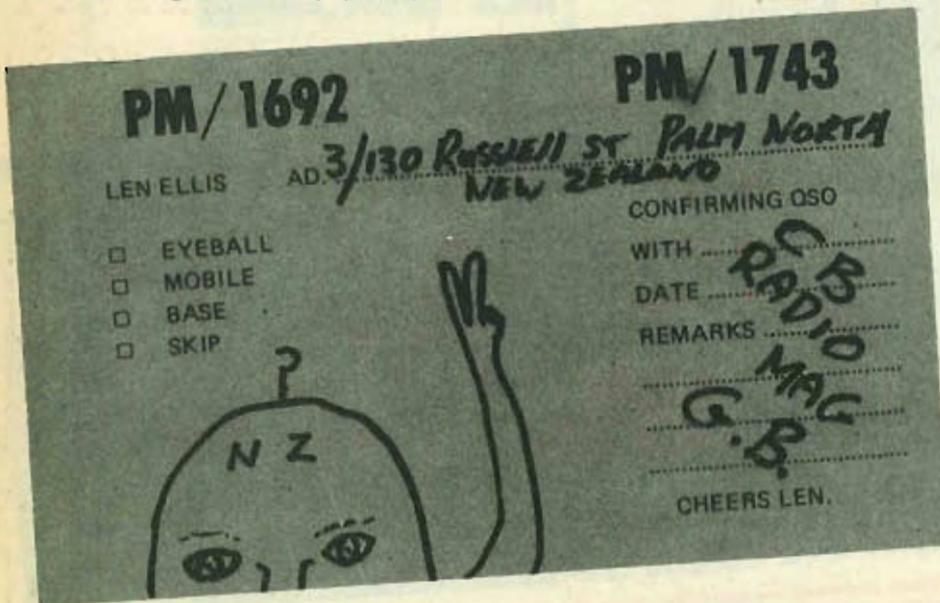
I would like to know more about whatever happened to:

(Ideas) a) James Bryant and the CBA; b) Natcolibar; c) Andy Donovan, UK CB; d) Suicide Jockey; e) Unit 148, Boxcar Willie, etc.; f) Other well-known handles; g) Mura and other firms.

That's enough for now, I will write more later.

Paul Ewers  
Brill, Bucks

*Readers are invited to send in their news, views and opinions for consideration for publication.*



Dear Sir,

Last November, I purchased a CB radio but over the past few months it has changed from a CB to a stereo unit!

If you are wondering why, it picks up more music from Radio 1 than CB buddies. I have just had a musical modulation with one of the CB DJ's who plays morning, noon and night. I asked if I could possibly have a request to speak to my good buddies that I could have spoken to before Christmas. Notice I put Christmas? This is because most of the wallies came on then and weren't even interested in the new hobby.

I find most breakers aren't fit enough to watch Play School. Anyway, back to what I was on about. When I managed to break through Adam and the Ants, he wasn't too happy to hear a non-musical voice. It took several minutes in explaining how CB should be used and, hopefully, is going to be used in the New Year.

Surely all the money the GPO are getting from licences could be spent on wally scanners and the people to operate them, instead of buying a new cage for Buzby!

I'm sure this could be controlled by a small exam before purchasing your licence, just like they do on amateur radio.

I shall now go back and try to break through the beat and get a decent modulation. Please print this letter so the wallies who play the music and cue their mikes can read it and realize what they are doing.

Yours sincerely and hopefully, a frustrated breaker like so many in Britain.

Name and address supplied

Dear Sir,

Over the past few months there has been an argument by post between K. Bradford, the AM user and Matt Sanders, the FM user. I've watched their letters appear in your magazine and I've grown more and more angry. I've used AM and FM and I think they are both good systems, each with its own particular problems. That sort of silly and childish arguing gives CB - both legal and illegal - a bad name. OK, I agree that there is a need for more channels on FM but there is a need for more breakers on AM. A friend of mine took two hours to find a copy on AM. What makes me so angry is that it always seems to be people

# OFFICIAL



# MEMBERS

FREE LISTING PLACED BY CIBTA  
TRADERS, WHY NOT JOIN US . . .  
SEND FOR AN APPLICATION FORM TO  
CIBTA, PO BOX 6, HAYES, MIDDLESEX UB4 0SS

PROMOTING THE INTERESTS  
OF CB TO THE  
CONSUMER AND THE TRADE

## Breaker 1.4

52 Markston Lane  
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

## Simply 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

Catwhisker'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

# ENJOY A SPRING WEEKEND IN PARIS

A luxury coach with on-board bar, video, air conditioning and hostess service will collect you from either Birmingham or London (your choice) on *Friday* morning to commence your memorable weekend break in Paris. You will arrive in Paris the same day, where your hotel is centrally located within sight of the Eiffel Tower. Each bedroom in the hotel has its own bathroom (our price of £55.00 per person includes Continental breakfast). On arrival in Paris, the first evening is free for you to enjoy the varied and exciting night-life that Paris has to offer.

On *Saturday* morning a full tour of Paris will take place and you are invited along at no extra charge. After this three-hour round of the sights, the remainder of the day and evening is entirely at your disposal.

On *Sunday* morning your luxury coach will take you to the historic and beautiful Palace of Versailles for a guided tour. After this tour (Versailles is approximately 45 minutes from Paris) you will commence your journey home.

THIS ENTIRE TRIP COSTS JUST

**£55.00**  
per person

A £10.00 supplement is chargeable for a single room. All of our prices are based on two people sharing a twin room.



- ★ LUXURY COACH
- ★ CENTRALLY-LOCATED HOTEL
- ★ 2 FULLY INCLUSIVE TOURS
- ★ PARIS IN SPRINGTIME

### TIMETABLE: 15 APRIL (FRIDAY)

<i>Depart</i>	Birmingham (near Bull Ring) 7.30a.m.
	or London (Kings Cross Coach Station) 10.30a.m.
<i>Arrive Paris</i>	6.00p.m.

### TIMETABLE: 17 APRIL (SUNDAY)

<i>Depart</i>	Hotel approx. 9.00a.m. for visit to Versailles
<i>Arrive England</i>	London 10.00p.m. Birmingham midnight

Please reserve me \_\_\_\_\_ places for this Spring Weekend in Paris at £55.00 (single room supplement £10.00).

Name \_\_\_\_\_

Address \_\_\_\_\_

I enclose a cheque/PO for £ \_\_\_\_\_



ATOL 1528

Viscount Travel, Terminal Building, Southend Airport, Southend, Essex Tel: (0702) 48601

# OFFICIAL



# MEMBERS

FREE LISTING PLACED BY CIBTA

**TRADERS, WHY NOT JOIN US . . .**

SEND FOR AN APPLICATION FORM TO

CIBTA, PO BOX 6, HAYES, MIDDLESEX UB4 0SS

PROMOTING THE INTERESTS  
OF CB TO THE  
CONSUMER AND THE TRADE.

## **BOYDES**

The Corner Shop  
Kingston, Morayshire  
(0343) 87403

## **ENFIELD COMM**

135 High Street  
Ponders End  
01-805 7772

## *Signal Aerials*

255 High Road  
Broxbourne, Herts  
Hoddesdon 64716

## *Patrick McNulty*

24 Belmore Street, Enniskillen  
Co. Fermanagh, N. Ireland  
(0365) 22423

## **Int' Comm Agencies**

207 Aylesbury Road, Berton  
Aylesbury, Bucks  
(0296) 22068

## **The Nappy Factory CB**

74 Lower Street, Hillmorton  
Rugby, Warks

## **SOUNDWAVES ELEC**

New Street  
Ledbury, Herts  
(0531) 4676

## **CONNECTORS**

11 Western Parade  
Barnet, Herts  
01-449 3476

## **CQ CB SHOP**

1 St. James Road  
Gravesend, Kent  
(0474) 67171

## **CB AND MODEL HOBBIES**

Parndon Mill  
Harlow  
(0279) 418817

## **CB COM TEL**

44-46 Grimshaw Park  
Blackburn  
(0254) 56098

## **P. SQUIRE**

19 Bridge Street  
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

## **CB Corner**

19 Trinity Street, Gainsborough  
Lincs. DN21 1HS  
Gainsborough 611199

## **Autosound Services**

1 Portland Place  
Doncaster DN1 3DW

## **Billericay CB**

92d High Street  
Billericay, Essex  
Billericay 22200

## **N & K Blake**

17 Wood Market  
Kelso, Borders  
(0573) 24217



# RIG TEST

## EMS MERCURY 1040

### Microphone

The microphone supplied with this rig is of a very small, oblong shape measuring approximately 1½in. X 2¾in. X 7/16in. thick. It is also fitted with the better lockable four-pin plug for connection to the rig. The only failing is a badly-made retaining clip which holds the microphone lead into the microphone body.

### Construction

Unlike most sets, which employ a two-piece top and bottom cover plus chassis, the EMS has a carefully-designed top and bottom cover which fits directly to the front and rear panels which are in turn held in place by the circuit board itself. The case is finished in black or brown stone-enamelled aluminium, which is both lightweight and very hard wearing. This casing is fixed to front and rear panels with special anti-tamper screws, to deter fiddlers.

The front panel is available in three colour options, gold with black letters, silver with black letters and black with silver letters, to suit personal preferences.

The controls from left to right are channel selector switch, channel display with 15mm.-high digits, which means it can be easily readable from a distance, on/off volume control, squelch, RF gain, PA CB switch, high/low power switch, four-pin microphone socket above which is a standard-type power/signal strength meter with a red TX indicator, a yellow PA indicator and a green RX indicator.

The printed circuit board is a very well-designed, high-technology type, as used in computers. The layout is also very good and all components are identified. It is also worth noting that it is impossible to damage this rig by reversing the battery polarity. Another very noticeable factor about this rig is that there are no loose wires floating around the circuit board.

### 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.

### Power output

This test is done to check that the power output of the rig conforms to Home Office specification MPT 1320 and that the rig will give the user sufficient power output for normal use over a reasonable variation of power supply voltages in both high and low settings.

Power Output and Attenuation			
Atten.	10.5V	13.5V	14.5V
High	1.6W	3.0W	3.7W
Low	.20W	0.36W	0.43W

The results of these tests prove that in the high power position the rig gives just below the maximum permitted output power. In low power it

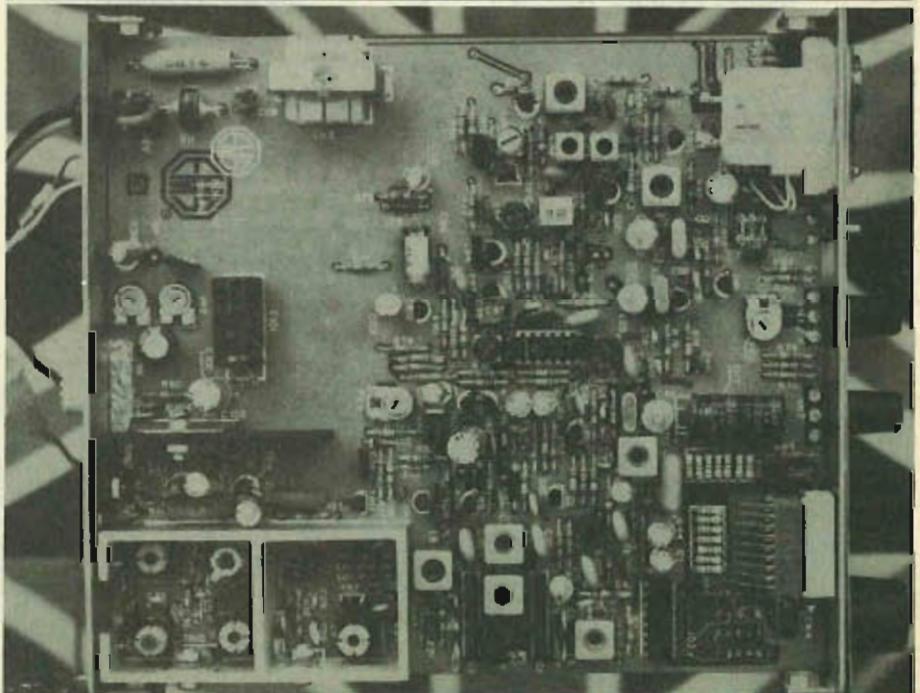
gives just over the permitted output power. The results compared very favourably with most foreign rigs tested so far.

### Temperature stability

This test is done to ensure that the rig stays on the frequency for a reasonable change in environmental temperature (48°F to 68°F).

Temperature stability			
Temp.	CH1	CH2	CH3
Should be	27.601250	27.791250	27.991250
48°F	27.601390	27.791380	27.991390
68°F	27.601197	27.791199	27.991205

The temperature stability of this rig can be seen to be very good, drifting a maximum of 53 cycles over the whole temperature range. The frequency



accuracy was also very good as the drift remained constant over the whole frequency range for both temperatures. By far the best we have tested so far.

### Modulation

This test is done to check the ability of the rig's modulation circuit to give a good modulation level over a varying range of input levels and frequencies.

Input Level	Modulation		
	300Hz	1125Hz	2500Hz
0.6mV	0.2kHz	0.25kHz	0.17kHz
2.5mV	0.5kHz	0.72kHz	0.4kHz
6.0mV	1.3kHz	1.6kHz	1.75kHz
25mV	3.5kHz	2.0kHz	1.4kHz
60mV	3.5kHz	2.1kHz	1.45kHz
250mV	3.6kHz	2.1kHz	1.5kHz

The above results are quite good, except at the low frequency/high input level end, where it tended to over modulate but when re-tested, using its own microphone, it was impossible to over modulate because the microphone had a low output level but this could cause over modulation if the rig was ever fitted with a power microphone.

### Receiver test

To do this test, the loudspeaker was replaced by a Marconi TF 893 AF power meter with a Marconi TF 2337 distortion factor meter connected across it.

Measured Distortion	
1 watt	6.5% distortion
2 watts	10% distortion
3 watts	26% distortion

The above results were rather poor. It was a pity that a better output amplifier could not have been designed to give better distortion figures.

### Squelch level

The threshold of squelch was measured at 1.0 microvolts and fully muted at 320 microvolts. A good range that gave no trouble when field tested.

### Receiver sensitivity

This test is done to check the ability of the rig to pull in weak or distant stations.

Sensitivity	
10dB quieting	0.8uV
20dB quieting	1.2uV
30dB quieting	14uV

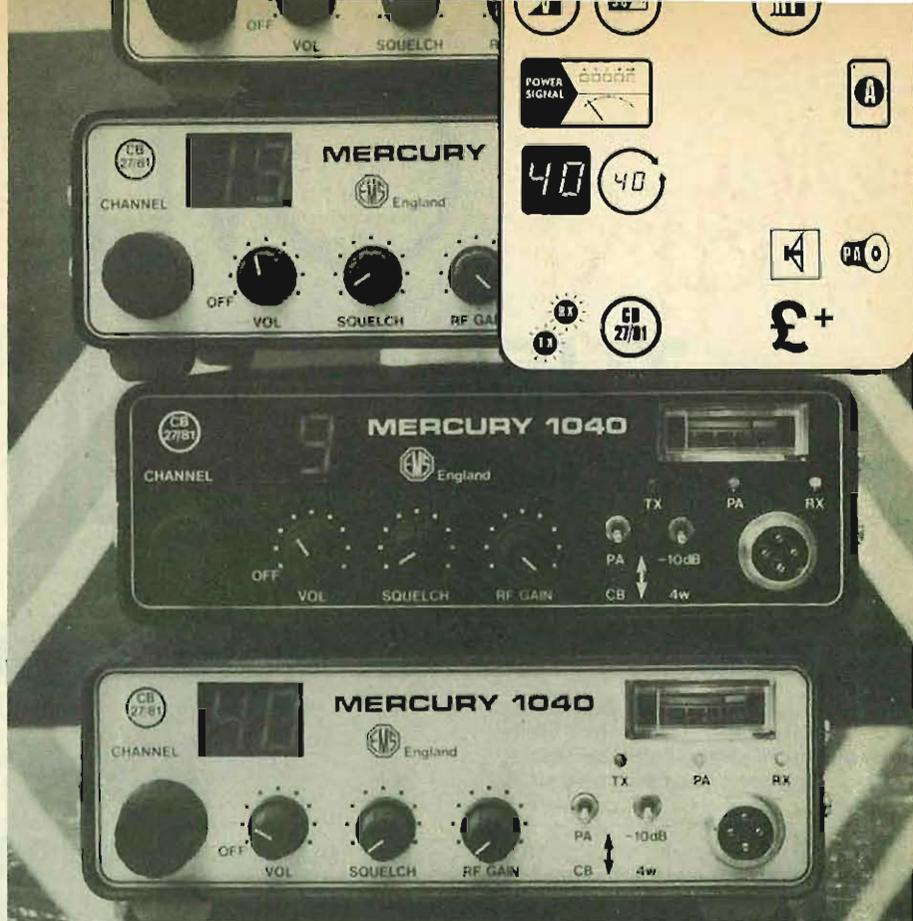
From the results, we can see that this rig is average and in our opinion the rig could have been slightly more sensitive.

### S meter reading

This test is done to check the calibration (sensitivity) of the rig's signal strength meter.

S Meter Reading	
1	6uV
3	15uV
5	25uV
7	40uV
9	75uV

We can see from the results of this test, which is done with the RF gain control turned to maximum, that a 9lb. (S9) signal means that the station you are receiving would be putting 75 mic-



rovolts of signal down your twig but as this figure for most rigs we have tested has been rather inconsistent, we feel this should not cause any trouble.

### AM rejection

The AM rejection measurement taken from this rig gave a result of 30dB, an average reading for CB equipment, although a high level would have given more resistance to stray AM signals.

### Adjacent channel rejection

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

Adjacent Channel Rejection			
300mV	300mV	2mV	90mV

The results of this test were very good, being some of the best results so far, which makes this the rig to choose if you have many breakers living near by.

### Summary

This rig is the first 100%-British rig to reach the production stage, i.e., designed and built in Britain and, although some measurements left room for improvement, it was a pleasure to see such a well-constructed rig. The Mercury's resistance to adjacent channel interference (bleedover) was the best we've tested so far and

makes it the best choice for breakers operating in highly-active areas but although the AM rejection figure of 30dB is average, a higher figure would give better resistance to stray AM signals such as ignition noise, neon lamps, etc. All points considered, though, a good all-round piece of equipment.

A copy of this Test Report was sent to EMS Communications Division, at Wantage, who assured us that the reason for this particular set's lack of edge was due to the inavailability of a vital piece of test equipment at the time of its production - after all, it was only the third Mercury 1040 to be produced. EMS has since purchased more sophisticated test and alignment equipment to ensure that all production models are accurately tuned before being dispatched.

EMS has also told us of its plans to manufacture an FM noise limiter, which will be available as an optional extra at around £20. Development staff at EMS are also busy designing the forthcoming EMS base station, which we look forward to seeing later in the year.

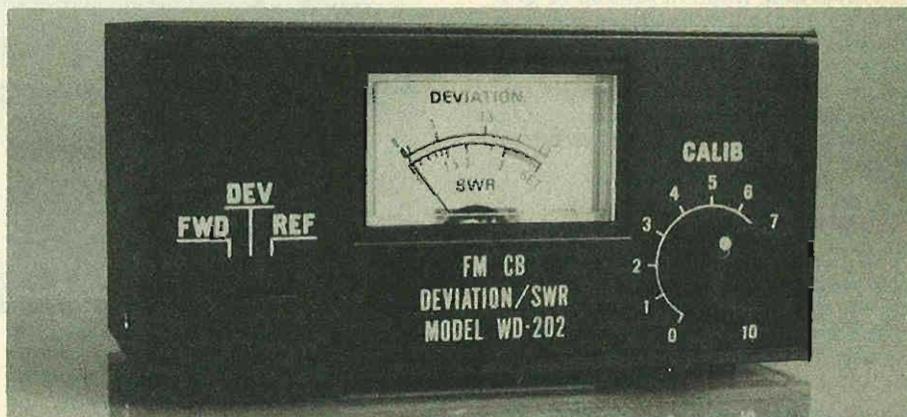
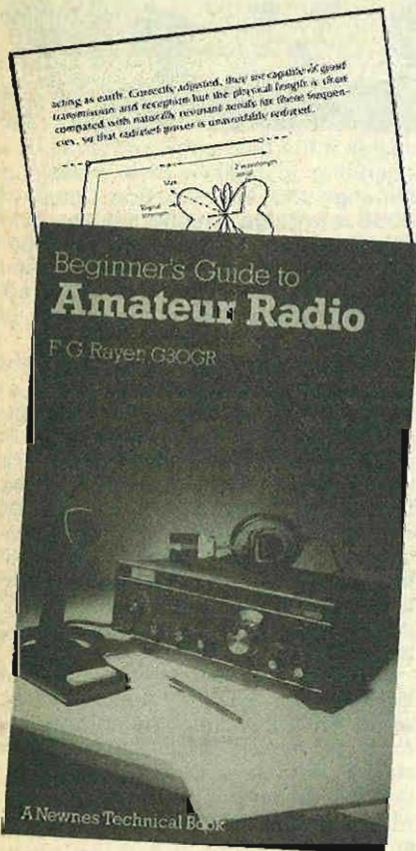
Unfortunately, the office Christmas party must have proved too much for us last month, as a mistake crept into the modulation results for the Colt 355. The results for the modulation tests were as follows:

Input Level	Input Frequency		
	300Hz	1125Hz	2500Hz
0.6mV	.05kHz	0.15kHz	0.2kHz
2.5mV	0.3kHz	0.65kHz	0.8kHz
6.0mV	0.7kHz	1.1kHz	1.3kHz
25mV	1.7kHz	1.9kHz	1.5kHz
60mV	2.2kHz	2.2kHz	1.7kHz
250mV	2.9kHz	2.6kHz	2.0kHz

# OVER THE COUNTER

## Beginner's Guide To Amateur Radio

A new book, entitled *Beginner's Guide To Amateur Radio*, has been released by Newnes Technical Books, of Kent. The book has been written by



### FM deviation meter

F. G. Rayer, T.Eng. (CEI), G30GR, who sadly died shortly after completing the manuscript.

Frank Rayer has been known to thousands of amateur radio and electronics enthusiasts for many years through his magazine articles, books and constructional projects and his book aims to explain some of the more baffling aspects of radio communications. The book has been aimed at newcomers to radio communications and CB'ers who wish to prepare themselves for the Radio Amateur's Examination and thus become a licensed radio amateur. Topics include frequency wavelength and propagation, short-wave equipment, HF transmitters and receivers, VHF equipment, antennas and a useful appendix of formulae and data. The cover price is £3.95 and the book is published by Newnes Technical Books, Borough Green, Sevenoaks, Kent TN15 8PH.

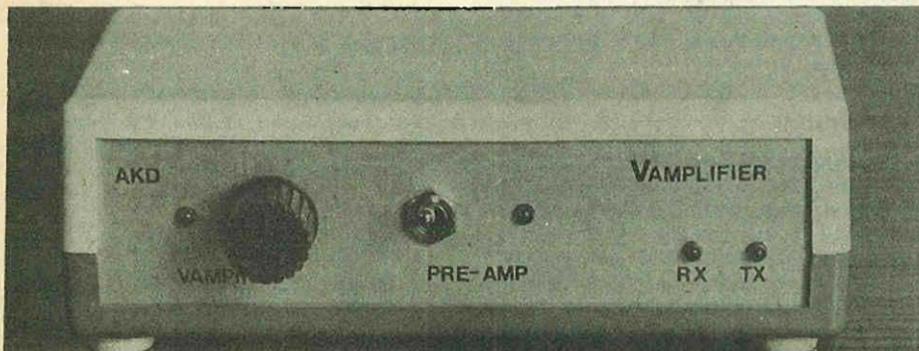
A deviation meter is absolutely essential for setting up FM transmitters and this compact meter, marketed by Guildford CB, incorporates an SWR meter into the bargain. The central meter is calibrated from 0-3kHz for deviation measurement and 1:1-1:3 for SWR measurement. A three-position switch changes the meter from deviation to forward or reflected for SWR operation. Calibration is via a small rotary control to the right of the meter.

For both SWR and deviation measurement, the meter is connected to the transceiver and antenna via standard coax connectors, however, when deviation is to be measured, the meter requires a 13.8V power supply, obtained by connecting the red and black leads attached to the meter to the same power supply as the transceiver. The WD-202 deviation/SWR meter retails at £19.99 approx.

### Vamplifier

UK distributors of AKD quality products, Telecomms Ltd., have announced the release of the Vamplifier, a combination of their already-popular CB Booster and Vampire units.

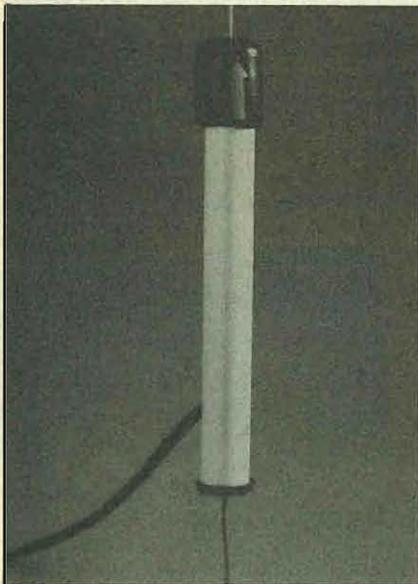
The Vamplifier's switchable pre-amp stage incorporates a very low noise FET device and the attenuator section has now been made variable and switchable for the precise control of bleedover. By way of an added bonus, the Vamplifier now incorporates a low pass filter. Retail price £29.95.



## The Hot Wire

A new dimension in home base antennas is opened by the release of the Hot Wire 27MHz CB antenna. The antenna takes the form of a fully-weatherproofed loading coil with a precisely-measured length of wire attached to each end: one to form the main radiating element and the other to form a ground plane thus producing an asymmetric dipole giving a low radiating angle and, therefore, increased range, especially if it is mounted at high level. An efficiency level of 65% has been carefully estimated (by the use of tests and analysis) which results in a high level of ERP.

Complete installation and tuning instructions are included in the retail price of £9.85.



## The Westward P.T.

Westward Electronics, of Totnes, Devon claim that the Westward P.T. is the most versatile CB transceiver available, offering a complete system with the performance expected of a high-quality mobile or home base.

The P.T. is fully portable and comes



## New Tagra antennas

Barcelona-based Tagra specialize in making antennas to designs well proven by other companies, e.g., the Tagra T.40, which is similar in both name and physical appearance to the American-made K40. Newly released, however, is a range of home base antennas which are also copies of well-proven designs.

The **BT.104** has a  $\frac{1}{4}$ -wave single radiating element 8.210m. tall and can handle up to 2kW of RF power at 27MHz. Its ground plane consists of three radial elements cross braced and joined at the top by a circle of aluminium, concentric to the single radiating element. Retail price £59.95.

The **BT.101** has a  $\frac{1}{4}$ -wave single radiating element 6.5m. tall, capable of handling 2kW of RF power at 27MHz. The ground plane consists of three vertical mounted radials, joined at the bottom by a ring of aluminium tubing. Retail price £29.95.

The **AH.10** is a three-element beam antenna capable of handling 300W of RF power. The longest of the elements is 1.8m. and the boom length is 1.9m. Polarization can be either vertical or horizontal. Retail price £49.95.

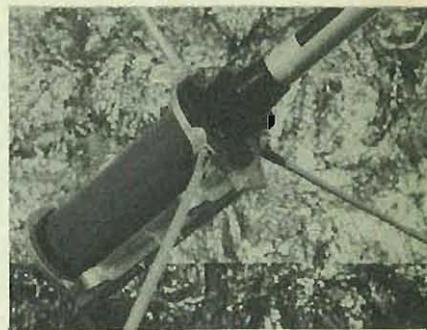
The **F.2** is a  $\frac{1}{2}$ -wave antenna with a single radiating element of 5.76m. length, capable of handling 1.5kW with frequencies between 27-29MHz. The ground plane consists of three 720mm. horizontally-mounted radials positioned just above the loading coil. Retail price £34.50.

The **F.3** is similar in design to the F.2 but has a  $\frac{3}{8}$ -wave element of 6.38m. and three 1.5m. radials. Retail price £49.95.

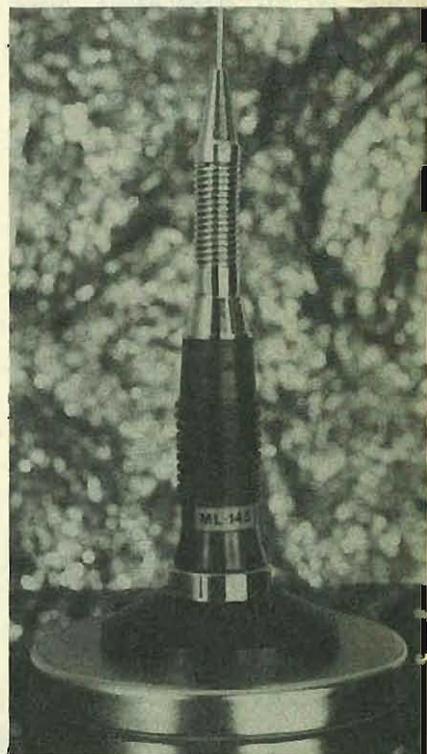
The **ML.145** is a mobile base-loaded whip of 1.5m. length as per MPT 1320,

complete with shoulder strap, rubber duck antenna and integral high-capacity battery pack giving up to three days' use dependant on transmission time. Battery life can be further extended by using the low power and display off switches. The battery pack can recharge from complete exhaustion within five hours using the built-in

which comes complete with a heavy-duty magnetic base and coax lead. The tapered stainless steel whip is fitted to the loading coil via an anti-kink spring and is tuned in the conventional way by using the Allen key supplied. Retail price £29.95.



 **tagra**



mains charger.

The P.T. is also easily convertible for mobile operation using the quick-release car mounting bracket supplied. Connection can be made to the car's 12V power supply but is not recommended as no performance advantage is obtained and more interference is likely to be experienced. Using the lead supplied, the P.T. may be used direct from the mains employing the unit's internal regulated power supply, which can also charge the battery at the same time. The stylishly-finished P.T. fully conforms to MPT 1320 and retails at £129.95. A high-quality, craftsman-made leather case is available as an optional extra at £25.30.



## Bulldog regulated power supply

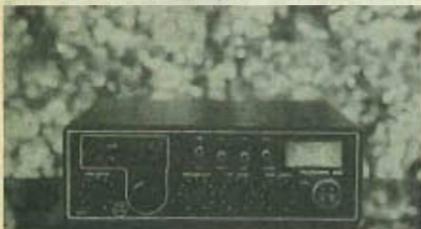
Adman Electronics Ltd. specialize in the manufacture of transformer-based products such as power supply units and battery chargers. The latest additions to their range are Bulldog 13.8V power supplies, which are intended for use with items normally run from a car electrical system, such as CB radios. Both the 2-amp and 5-amp versions are fully regulated and protected against overload, overheating and short circuit. Output power capacities have been clearly marked on the fascia panel to avoid misuse. A large illuminating on/off switch has also been conveniently placed on the fascia panel adjacent to the fuse holder, which incidentally cannot be undone by hand but requires a screwdriver or small coin - an essential safety measure if the unit is to be used by a child. Retail prices are £14.95 for the P202 (2-amp version) and £21.95 for the P502 (5-amp version).

## Maxcom Super 4E and 30E

AM Telecommunications, distributors of the extremely-popular Maxcom range of CB transceivers, have brought out two new transceivers, the Maxcom Super 4E and the Maxcom 30E. The Super 4E is basically a reincarnation of the previously-marketed 4E, which has proved to be the most popular model so far, with a few minor modifications. The receiver section has been made more sensitive to allow weaker signals to be received more clearly. The LED display has been changed from red to green, which makes it easier to read in certain conditions and less of a distraction to the motorist. A new microphone will be supplied, giving greater frequency response and, therefore, clearer voice reproduction and a

spare power lead will be provided to facilitate both mobile and home base use. The Super 4E will retail for around £33.50.

The 30E is a totally new rig to the Maxcom range, which has a full complement of features which include a green LED and illuminated S/R/F meter and red LED indicators for TX and AWI (Anti-Wally Indicator), which indicates when the rig is transmitting into an untuned antenna, risking damage to the RF output transistor. Switches are employed for CB/PA, noise filter/on-off, local/distant and 4W/-10dB attenuator. Rotary controls allow the levels of volume, squelch, RF gain and mike gain to be varied and, of course, to select channel. The microphone connects to the right-hand side of the fascia panel for ease of mobile operation. Retail price is expected to be around £67.50.



## CB Radio (Questions and Answers)

Fred Judd, FISTC, MIOA, Assoc. IPRE, G2BCX and technical adviser to CB Radio Magazine (Busy lad, our Fred) has written a book entitled CB Radio (Questions and Answers), which has been published by Newnes Technical Books. The pocket-sized book covers all aspects of CB radio for both 27MHz and 934MHz users, including equipment, radio propagation, operating procedures and technical terms. In fact, the 102-page book is crammed full of questions and answers, charts, diagrams and codes, all of which are a valuable asset to the serious CB'er. The cover price is £2.50 and the book is published by Newnes Technical Books, Borough Green, Sevenoaks, Kent TN15 8PH.

# Big Bargains for Breakers

The Breaker 1-4 Sale starts Friday 4th February with huge savings on big names like

HAM INTERNATIONAL • YAESU • ICOM  
 COMMANT • SIRTEL • GRANDSTAND • CTE  
 and many more!

You just won't believe our prices!  
 But hurry - sale must end Saturday 19th February.

We can't keep up this madness for long!

## BREAKER ONE-FOUR

*London's first and foremost CB store.*

**OPEN**  
 9am-6.30pm Mon.-Sat.  
 Sun. 10am-1pm.

130 HIGH STREET, EDGWARE, MIDDLESEX.  
 TELEPHONE: 01-952 8860/8185/7488.



Calling all Breakers! For big discounts on a wide range of CB equipment - join The Breaker One-Four Discount Club. There's mail order, too. Write or call us for details.

## KEEP WARM THIS WINTER

Don't get cold going backwards and forwards to the newsagent every month. Subscribe to CB Radio Magazine and let your postman get frost-bite instead of you.

Please send me CB Radio Magazine on a year's/six months\* subscription, starting with issue \_\_\_\_\_  
 I enclose a cheque/PO\* for £12.50/£6.25\*

(Cheque/PO number \_\_\_\_\_)

Name \_\_\_\_\_

Address \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Subscription includes early delivery of each month's magazine by first class postage.

Worldwide surface mail same price as above. Air mail to Europe, 1 year: £16.75. Air mail to USA, 1 year: £38.00. Air mail to Australia, 1 year: £40.00

\*Delete as necessary

Return form to: CB Radio Magazine Ltd., Tudor Works, Beaconsfield Road, Hayes, Middx. UB4 0FL

## THE NEW #857

NOW TUNES IN A WHOLE NEW WORLD OF RADIO EXCITEMENT . . .

40 Ch's FM CB  
 POLICE  
 FIRE  
 AIRCRAFT  
 HAM RADIO  
 MARINE  
 UTILITIES

MOBILE PHONE  
 TAXIS  
 BUSINESS RADIO  
 PAGING CALLS  
 VHF TV SOUND  
 FM RADIO  
 BROADCASTS



Unsurpassed, incredible . . . A professional monitor receiver only 7½ × 3½ × 1½in. This set will bring in all the latest action including FM CB, news and developments from your local vicinity and beyond. In fact, possibly everything listed and even more!

The #857 incorporates the very latest electronics technology for remarkable discernibility of even the most distant radio broadcast. Features include . . . squelch, volume, 6V dc and earphone sockets (earphone supplied). With the impressive new #857, enter the world of professional radio communications for an incredible £14.95 all inc. ORDER NOW, dispatch guaranteed within 7 days. CWO/COD WELCOME.

PLEASE COMPLETE THE FORM BELOW OR PHONE (0388) 763323 FOR IMMEDIATE DISPATCH.

To: Dave Taylor, 8 Emmerson Street, Crook, Co. Durham, UK

Please send me \_\_\_\_\_ #857 CB/VHF Communications Receivers at £14.95 each, Post Paid. I enclose Cheque/Postal Order for

£ \_\_\_\_\_

Signature \_\_\_\_\_ Name \_\_\_\_\_

Address \_\_\_\_\_  
 \_\_\_\_\_

# DX QSL

# INTERNATIONAL

# CLUB SPOT

Well folks, here we are, 1983 and a whole new year ahead of us. Glad to see that you got through the hol's OK, without too much trouble. I would have liked to have kicked off 1983's articles with a real blockbuster but once again, DX news and activities appear to be at a minimum, so it's down to mainly QSL and club reporting.

A serious affair comes with this warning from Grant Wilson - Charlie Delta 12, of Dunfermline, Fife, Scotland. Readers with long memories may recall Grant appearing in the DX QSL spot a few months ago.

Here is the low-down from Grant on the Swagmans Club of Australia. Way, way back in April 1982, Grant posted off to the Swagmans Club a total of \$57. This was to cover membership, cards and AD labels. Since posting off his money, Grant has not heard a whisper from the Swagmans Club, despite writing twice to enquire as to what was going on. I find the whole affair highly amazing and extremely disappointing, considering the international reputation of the Swagmans Club. I can conceivably believe that they didn't receive Grant's money but not receiving two letters - no way! There's definitely a rabbit away somewhere here. Grant has reluctantly decided to put it down to experience but at \$57 plus postage it hasn't come cheap. I wish there was something positive I could do about the problem but, unfortunately, there isn't other than to issue a warning, 'Beware of Swagmen bearing gifts'.

It's a damn shame that the friendship and trust of the 11-metre DX QSL world is being spoilt in this way by 'shady' clubs but that's the way it seems to be at the moment, 'The good, the bad and the ugly'!

OK, enough of this depressing stuff. From clubs that may respond to clubs that definitely do and the reason why I'm so sure? Because these are FREE clubs. In my experience, I've found that FREE clubs are, more often than not, great little outfits to become associated with. They always appear to be bright and energetic affairs, no doubt due to the obvious enthusiasm and love of QSL'ing of their founders/presidents.

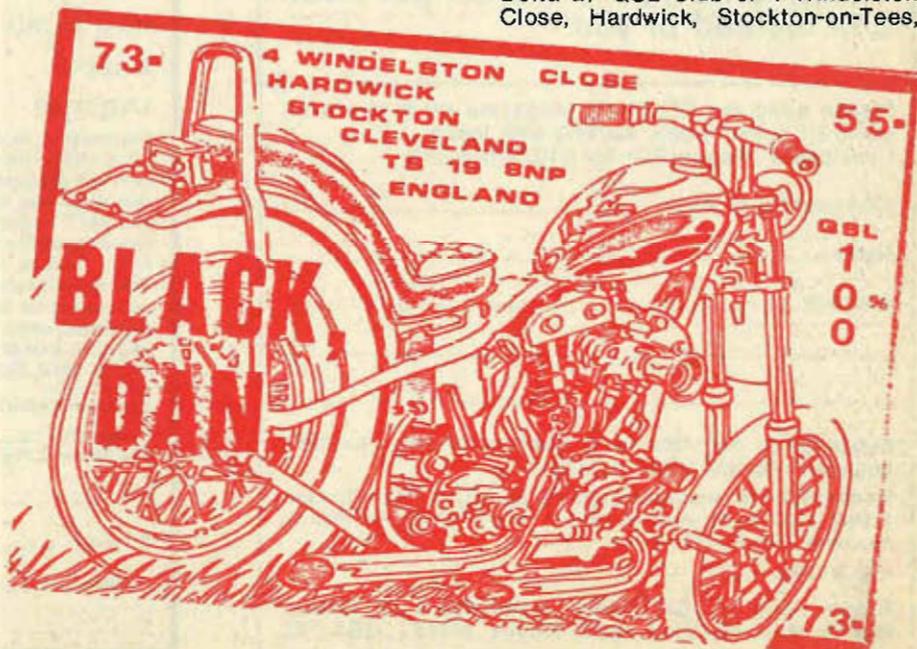
First out of the hat, 'Ee bah gum,' is



the Dragon Rider QSL Club of Ilkley. To become a free Dragon Rider, just send five of your own signed cards and a sae (or two IRC's) to Dragon Rider I David, 3 Tarn Villas, Cowpasture Road, Ilkley, West Yorkshire

LS29 8RH. In return, you will receive five cards from David, five other cards, a club Unit No., other club forms and extras as available. Also available at a cost of £4.00 is a pretty, good-looking Dragon Rider rubber stamp.

If Yorkshire pud is not to your liking, move a bit further north to the Bravo Delta 27 QSL Club of 4 Windelston Close, Hardwick, Stockton-on-Tees,

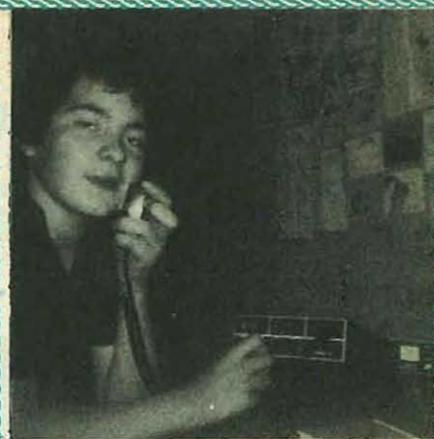


Cleveland TS19 8NP. This really is a great little outfit. To obtain your BD27 Club No., send your name, AD, handle and Station Call Sign and eight signed and dated personal QSL cards and you will receive the following items FREE: club certificate, club ID card, QSL's from other countries, invitations to other clubs, also, as and when available, tourist info, pen, cloth badge, stickers and anything else which the Club President/Founder, Ron Horn (Black Dan), can lay his hands on. Unfortunately, due to it being quite a sizeable little package, mailing costs are slowly bankrupting Ron, so he has reluctantly come to the conclusion that he must charge postage. Considering that the club membership and package is free, I think it quite a reasonable request. First class mail in the UK is 50p. Air mail to USA is \$2.00. You may be wondering why Ron puts out such a good free club package. The simple answer is that Ron is a genuine 100% QSL'er. He loves the whole concept of QSL'ing and hopes, as a result of BD27 club, to make and meet as many like-minded new friends as possible.

Open up dem pearly gates! It's Stateside getting in on the action again. Jabber Jaws QSL Club, of Illinois, is a really professionally-run free QSL club. Jabber Jaws, run by Ken Pettke, has been around for quite a while and is quite well known on the QSL scene.

OK, this month's last free club is just that little bit different and possibly the most interesting one of all. The India Mike DX Group, of Falmouth, Cornwall, is different from most other free clubs in that it is a DX group rather than a QSL club and, as such, group QSL cards and rubber stamps are available in the way of a normal DX group. One further point which sets India Mike apart from the rest is in its adoption of a group monitoring frequency, in this case 27.475 USB. This is the first time I've ever come across this situation in a free club but seeing as India Mike is a DX group, I suppose it's quite natural that this innovative step forward should be taken. India Mike is truly an international club, having within its ranks members in Hong Kong and Liechtenstein. To join India Mike, all that is required is for you to write on a card, your name, AD and station call sign and post it off to 1 IM01, PO Box 7, Falmouth, Cornwall. No fee is required, not even a postage fee, although I think first class stamps attached to the card would be a nice and courteous gesture. In your IM package, you will receive a wallet-size membership card, list of countries and a welcoming letter. Club QSL cards are available at \$6.00 per 100, club rubber stamp at \$4.00. Naturally, of course, due to the weight involved with these items, a mailing charge has to be levied; UK members \$1.00, Europe \$3.00, outside Europe \$6.00.

The India Mike Group could well be destined for great things. If so, I'm



## QSO OF THE MONTH

My special QSO this month is one that took place between Michael - Tango Foxtrot 19 - of Hebden Bridge, West Yorkshire and Imre - Tango Tango 2 - of Csanadpalota, Hungary. This QSO is notable in that it took place on a station using stock mike and no burner, 12 watts PEP only.

Tango Foxtrot 19's station at the time comprised of

TXRX Tristar 747

Antenna: Avanti Sigma 2

Mike: Original

Power: 12 watts PEP, no burner

Frequency: 26.905

Tango Tango 2's signals were received at this end

R5 S7

Tango Foxtrot's signals were received in Hungary

R4-5 S2-8 with QRM-QSB

Unfortunately, I am unable to reproduce TT2's QSL card, due to it being needed by Mick to help him qualify for an Alfa Tango DX award. However, it does exist, Mick let me have a loan of it for verification purposes. Barefoot QSO's are always very difficult to work and I think Mick should be congratulated for this one. A pretty good hook-up by anybody's standards and a very nice DX location, too.

Authorized CB equipment in Switzerland is restricted to 22 channels, 0.5W output and an omnidirectional antenna, yet apparently almost all CB'ers have much more sophisticated equipment which they use as and when the situation allows. International DX contact, in common with everywhere else, is technically extremely VERBIDDEN!

Roland, not unnaturally, has chosen to join the ranks of the pirates, his station comprising of a Sommerkamp 780 DX, PEP 100W plus scanner, topped off nicely with a Skylab 1/2-wave. For the normally-conservative Swiss, this is a sensational station.

Amongst Roland's most prized QSO's are those with stations operating out of England, USA, Norway, S. Africa, Brazil, Kuwait and Lebanon. He certainly would feel at home over here with UK pirates.

As I said a few lines back, Swiss CB is a bit of a mystery to me, even the Swiss QSL scene remains very much

73

# INDIA MIKE

51

INTERNATIONAL DX GROUP

PRESIDENT: IAN MACDONALD 1IM01

## QSL 100%

FROM UNIT:—

IM

CLUB CO-ORDINATES  
THE BUNGALOW  
2A AVENUE ROAD  
FALMOUTH  
CORNWALL — ENGLAND

55

88

To become a Jabber Jaw, post off to Ken JJ 01, PO Box 216, Oak Lawn, Illinois 60454 - 0216, USA, five of your personal QSL cards, signed and dated and a self addressed envelope. Air mail postage is \$1.00 (US funds only). Should you apply to Ken for a JJ Unit No., give your full name, AD, handle and station call sign and also (if appropriate) that of XYL. As a new member, you will receive a very nice wallet-size personal ID card and your JJ Unit No. Last time I was in touch with Ken, he told me that JJ was around 425 members strong, there being about 105 members alone from the UK. Quite a sizeable club and one worth investigating.

sure it can handle the situation and, indeed, appears to be ready for such an event. All standard hand-outs issued by the club are, in fact, computer print-outs, processed by the India Mike computer, a Commodore 4032. Like I said, "an interesting set-up".

Switzerland, now there's a place to conjure up some nice visions. A strange thing about Switzerland, though, I've never yet heard a Swiss pirate on 11-metre sideband, although I am assured by Roland Stampfl - UFO 72, Vice-President of the Dragons QSL Club of Neuchatel, Switzerland - that the species does exist.

# DX QSL INTERNATIONAL CLUB SPOT



an unknown quantity. Yet on the evidence, it must be a thriving affair. The Dragon QSL Club, formed back in August 1979 by Roland, Pierre Colin - Georgie 72 (Club Manager) and the Club President - Laurent Hurni, Viking 72, was the sixth QSL club to be formed in Switzerland. Membership at the moment stands at around 250 members from 31 countries on the five continents. The policy of the Dragons Club is quite simple: to promote Switzerland, to promote Swiss CB and to further good relationships between Swiss CB'ers and foreign CB'ers. Well, it must be working, at least contact has now been made. For membership of the Dragons QSL Club, send 10 of your own signed and dated cards along with your full name, AD and station call sign to Dragons QSL Club of Switzerland, PO Box 158, 2006 Neuchatel, Switzerland.

Your membership pack will contain the following items, Unit No., club stamp, QSL cards, certificate, club roster, badge-sticker, ID card and a few other assorted bits and pieces. The membership fee is \$12.00. Postage is included in this fee. On the face of it, it appears to be good value for money. A reasonably well done up club package and a fairly modest membership fee. I've not yet come across any UK members of this particular club. Perhaps if any are reading this, they may like to drop me a line, give me their views on the club and, in doing so, give us all the benefit of their experience.

Take a look outside. The weather's useless, ain't it? Cold, dark, wet, 100% miserable in fact. Well, I can't exactly promise that you'll feel the sunshine or hear a calypso but, with the help of Sylvia Jones, Unit 188, of Spanish

Town, Jamaica, I'll try and brighten things up with a look at the CB scene, Jamaica style. Sylvia, by the way, first popped up back in September's column. You may recall that she was asking if anyone could possibly help her to obtain a souvenir tray of The Wedding. Since then, Sylvia has received lots of QSL's from the UK and many QSL'ers expressed their regret at not being able to obtain one of these trays for her. Sylvia really does thank each and every one for the lovely cards and notes which they sent and promises everyone that she is slowly working her way through them all. It may take her a while but Sylvia promises she will be up to date with her correspondence very soon. I'll let Sylvia take over now.

"CB's are very popular here in Jamaica and other West Indies Islands. Here in Jamaica, there are all types of radio, including amateur radio, although I won't go into details concerning amateur radio. For CB, there are 23 channels, 40 channels and SSB radios available (a similar set-up to FCC rules and regulations) but most operators have their radios modified so they can go on higher or lower frequencies. This is illegal but is extremely popular. Nearly all CB's over here originate in the USA. This is due to the fact that a lot of Jamaicans travel to the USA on vacation or just to shop and inevitably they bring a CB back home with them. Some bring more than one and sell them. Radios in the States are a whole lot cheaper than here in Jamaica. As an example, a radio that will be selling here for \$1,000 can be purchased in the USA for anywhere between \$50 to \$100.

"Applications for CB licences are sent to the P & T Office in Kingston. The application is then sent on to the

CIB Office to be processed. The CIB summon you to come to their office to be fingerprinted for their records. The prints are checked against criminal records and if you're in the clear, i.e., no criminal record, your application is OK'd and sent back to the P & T Office, who finally issue you with your licence. The licence fee is £15.00 per radio per year. Should you acquire another radio at any time, IN ADDITION to the original one on your licence, the law states that you should advise the P & T Office, who will then amend your licence to cover the new radio and also relieve you of \$15.00 at the same time. If you decide to sell one of your licensed radios, you have to have it transferred from your licence to the new owner. (A bit like buying and selling cars, innit?) This is the theory but in practice I don't think anybody bothers!

"Most people, when they apply for a licence, take out, as a matter of course, a licence for two sets, a mobile and a home base. The P & T Office accept the situation and, in fact, seem quite happy about this arrangement. No one rocks the boat and at the end of the day, we all come out winners. They get a regular fee and we just continue to accumulate radios. We use channel 4 to monitor traffic in the mornings in Kingston and a part of St. Catherine. Spanish Town, by the way, is the capital town of St. Catherine. Channel 9 is our emergency channel, where we can contact the cops, the coastguards or even the radio stations. The commercial radio stations, e.g., Radio Jamaica, will broadcast any emergency message for you.

"There are several CB clubs in Jamaica but all are local. There are international clubs in Trinidad and one in Antigua. I am going to suggest to my local club, The Spanish Town CB Club, that they should invite members from outside Jamaica. We do have a few members in the States. These, in the main, are visitors who came to meet friends and joined the club. Our local members pay \$15.00 per year and each receives an ID card."

This is more or less the CB scene in Jamaica and, indeed, most of the Caribbean. It's remarkable how close this description of CB activities compares to the UK scene. In conclusion, Sylvia passes on her best regards to all her new CB friends in the UK. Incidentally, that much-desired UK hook-up is still eluding Sylvia. It would be real nice if she did manage it eventually.

Well, that just about ties it up for this month, except for one last mention - 'Martyn The WDC 04'. It's just a private joke but Martyn will understand! Next month, the lowdown on the famous Sundown collectors' cards plus a look at Berliner Bear Club from a different viewpoint. Till next month, take care, look after yourselves and good DX'ing. Ta, ta.

Best regards.

Charlie Hotel Unit 25.

News, views, QSL swaps, QSO of the Month details, etc., to Charlie Hotel, c/o 3 West Street, New Silksworth, Sunderland, Tyne and Wear SR3 1EU.

# READER SURVEY

## 2

*We ask our readers what they want from their rig.*

Exactly a year ago, we published a reader survey "Who Are You?". We got thousands of replies, which were very useful in helping us to identify our readers and what you liked and disliked about our magazine.

Almost every breaker will agree that legal CB has not had an easy introduction. Now we think it's time to follow up last year's survey - we know who you are, now we'd like to know what you want. We think there are things, important things, wrong with CB in Britain. We need to know if you agree with us, so we can try to do something about it. There won't be as many personal questions in this survey as we are more concerned about CB as a whole rather than individuals. There is space for you to fill in your name and address and we can assure you that we will hold them in the strictest confidence but it is not essential that you fill it in. When you have completed the form, please forward it on to Reader Survey II, CB Radio Magazine, Tudor Works, Beaconsfield Road, Hayes, Middlesex UB4 0FL.

Do you use: AM/SSB CB  
British FM CB  
934MHz CB  
All three

(Please tick)

Which CB magazines do you read (please list).....

Did you previously read CB World  Breaker   
What CB?

If so, bearing in mind that they are no longer published as separate titles, which magazine will you regularly read in the future?

CB Radio  Breaker On The Side  Citizens' Band   
 If none of these, please indicate which.....

Which one do you prefer?.....

Which articles or types of articles in CB Radio Magazine do you particularly like? (Please list)

Which do you dislike?.....

Are there subjects not covered in CB Radio Magazine you would like to read articles on? Yes/No

If yes, please list.....

What do you estimate you have spent on CB equipment in the past year? (Please tick)

Under £50 £50-£100 £100-£150 £150-£200  
£200-£250 £250-£300 Over £300

How much of this was spent in the last six months? (Please tick)

All of it 75% 50% 25% Under 25%

What proportion of this total amount was spent on accessories rather than rigs and antennas (Please tick)

All of it 75% 50% 25% Under 25%

Would you like more channels on FM CB? Yes/No.

If yes, how many more do you think are neces-

sary? (Please tick)

10 or under Between 10 and 20 Between 20 and 30  
Between 30 and 40 More (Please indicate how many more.....

Would you support a European standard CB system? Yes/No

Would you agree with the Government dropping the current legal system in favour of a European system? Yes/No

Would you use a European system in preference to AM or FM British CB? Yes/No.

Would you like to see an AM/SSB system introduced in this country (if necessary independent of a Euro system)? Yes/No.

Are you or your club still actively campaigning for AM/SSB? Yes/No.

Are you or your club willing to actively campaign for changes in the law or licence? Yes/No.

Do you consider FM CB in this country needs further legislation? Yes/No.

If yes, tick what you think is necessary.

- Introduction of a minimum age limit
- Legal protection of channel 9
- Allocation of call signs
- Specified channels for particular purposes
- Removal of antenna restrictions

Your suggestions.....

Do you think the Government needs to put further effort into identifying and prosecuting licence offenders and unlicensed users? Yes/No

Would you be prepared to pay an increased licence fee to finance the above? Yes/No

Would you support the introduction of a repeater system for 934MHz CB to increase range? Yes/No.

Name.....

Address.....

.....

.....

.....



# Round Up



## Money for handicapped children

Members of the East Down Breakers held a charity dance recently at the Slanney Inn, Raholp, Co. Down, to raise money for mentally handicapped children. Music was supplied by the popular group The Lines Men, with their special guest, Leon, a country singer, who also presented a cheque for £400 to Mrs. Iris McBride, Principal of the Knockevin Special Care School.

The photograph shows Leon presenting the cheque to Mrs. McBride, surrounded by members of the East Down Breakers, Marie Murray, Carol Orme, Martin Holland, Tom McCann, Gerry Braniff, Harry Hlmon, Anthony Holland, Marie Holland, Damien Killen and Sean Braniff.

## Leeds to Otley wheelbarrow push

Otley CB Club recently joined up

with the Pately Bridge CB Club to push a wheelbarrow from Leeds to Otley in aid of the Stoke Mandeville Appeal Fund, the Otley General Hos-

pital Special Equipment Division and Dacre Banks Health Centre. Members of the PB CB Club pushed through Harrogate to Otley, where they were joined by the Otley Club and welcomed by the Mayor and Mayoress of Otley. Collection tins were rattled along the route, collecting a total of £314. The amount raised by sponsorship is not yet known. The photograph shows members of the Otley CB Club.

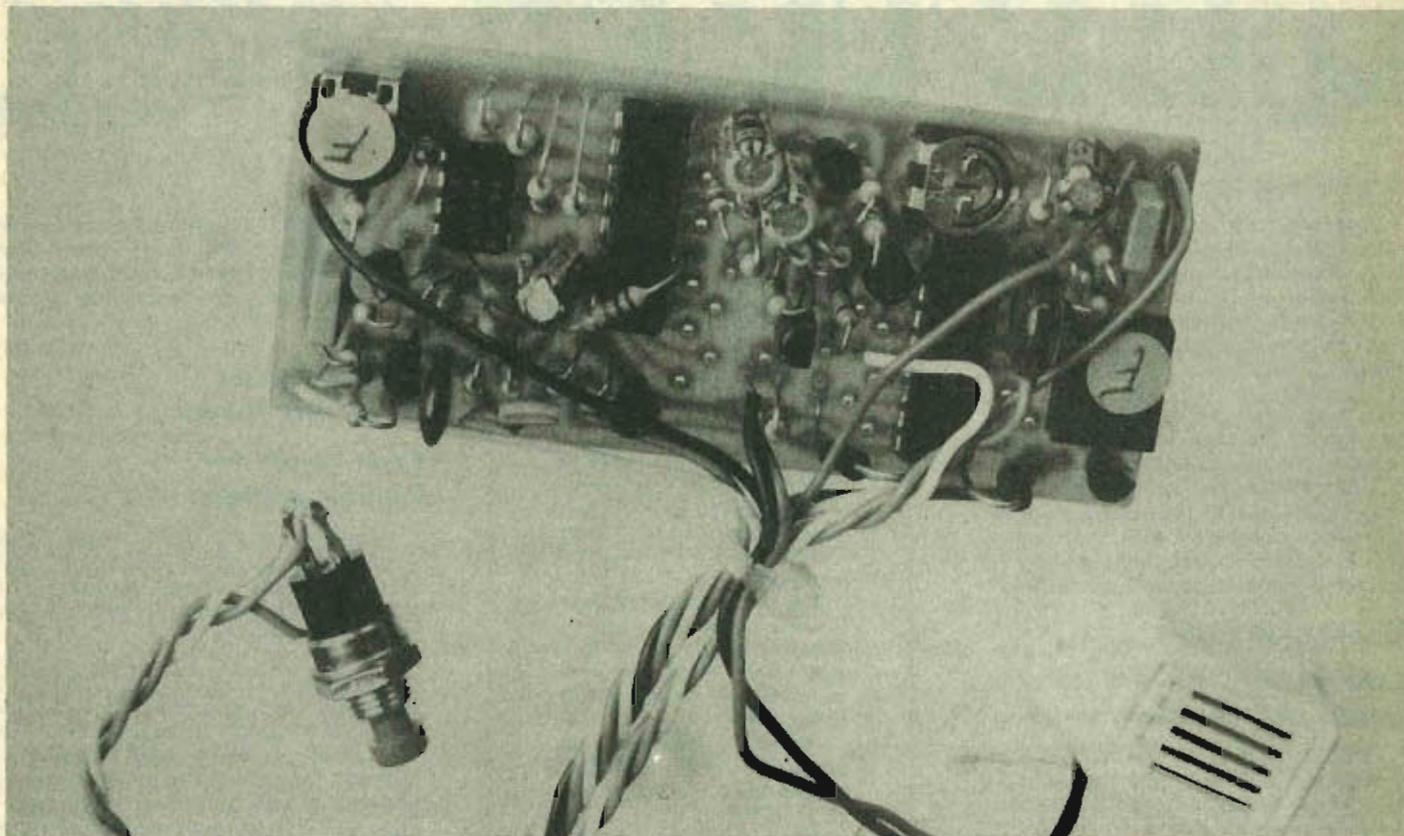


## cat call for EMS

Catswhisker's CB Centre, of Reading, has been given approval to fit its

cat call selective calling device into the all-British EMS Mercury 1040 transceiver. EMS Communications' technical expert, Geoff Longman, has

tested and approved the device, which is also constructed in Britain. (The Mercury 1040 is the subject of this month's Rig Test!).



## CEPT agrees to FCC

Two members of Natcolcibar, Tony Bevington and Steve Donahue, recently met with Timothy Raison to discuss the proposed European CB system. Mr. Raison told them that the CEPT working group, for which Mr. Fisher and Mr. Jones are British members, has agreed in principle to the adoption of the FCC system in FM only at a power of 4 watts. Four countries objected, including Finland, Switzerland and France, who are pushing for AM/SSB operation. A final decision has not yet been reached.

Another topic discussed at this meeting was the proposal of a CB 27/81 antenna approval system, designed to make policing easier. Many objections have been raised about this, including one from the Mobile Radio Users' Committee, to whom Natcolcibar is affiliated. When asked about future improvements to the British CB 27/81 system, Mr. Raison said that the Home Office can't afford to make any improvements to the present system and that anyone who refuses to pay the licence fee next year in protest will be prosecuted.

## Woodpeckers

For many years, radio amateurs have been troubled by 'woodpeckers' who encroach upon their 14, 21 and 28MHz bands. These 'woodpeckers' are, in actual fact, the RF reflections from Soviet radar stations scanning the globe. These reflections, when intercepted by a radio receiver, form a rapid tapping sound similar to the noise made by a woodpecker, hence the nickname. Due to the physical characteristics of these reflections, it is quite possible that they may occasionally find their way into your CB set. We would be interested to hear from anyone who has experienced this. (No, this is not the April issue).

*Do you have any items of news that could be of interest to other breakers?*

*Send them in to us for Round Up.*

## UBA re-surfaces

The United Breakers' Association has returned, with a vengeance. Their President, Andy Donovan, one of the forefathers in the fight to legalize CB, known to many as Disco One, has announced plans to organize the largest London-bound convoy this country has ever seen.

The new offensive has been planned to persuade the Government to legalize an AM CB system incorporating the use of SSB operation. They are also asking for more FM channels and enforcement of the Code of Practice.

The first of Andy's new demonstrations is planned for 30 May, when he is planning to walk from Glasgow to London gathering breakers along the way. Petitions are also being handed out to all UBA members, which will eventually be handed in to No. 10.

Anyone wishing to support Mr. Donovan is urged to contact him at **5 Gaskell Street Clapham London SW4 6PU** Tel: 01-720 7468

# NEWS REVIEWS



## A pretty grim picture

Unfortunately, publicity given to CB radio recently paints a pretty grim picture. Headlines, which relate to the last weeks in November due to the inevitable Christmas print shut down, refer to incidents such as CB foul language, CB rustlers, CB sex beasts and a CB shooting.

In fact, with the exception of the 'Mortal ghosts' clipping, charity events seem to have gone out of fashion or is it that newspaper editors consider these activities to be boring, especially when compared with the revelation of a 'juicy' scandal that is likely to increase the newspaper's readership?

## Northern Echo

### Save us say 'death ray' couple

Electronics experts are probing into a couple's bizarre claims that a mystery 'death ray' is ruining their health.

Retired nurse Raymond Neilland, 54, and his wife, Joan, 53, say they suffer severe pains and get electric shocks when they touch furniture in their home. Health officials have now brought in a sophisticated vibration monitor to try to detect where the ray is coming from.

Mr. and Mrs. Neilland, of St. Phillip's Grove, York believe a rogue CB radio working on a very low frequency is responsible but BT experts drew a blank when they did tests on the house.

Mrs. Neilland said that everyone thinks they are mad but they are not imagining it. She also claims that it is killing her husband and that they can't sleep. Whenever Raymond's in the house, he gets strange pains in his chest, feet and hands and the TV goes green without any apparent reason. The place is full of static electricity - it's absolutely baffling.

Mr. Neilland, who was forced to retire due to ill health, said that they had asked all the neighbours if they have a CB radio or anything similar but they all thought they were idiots.

The only proven cases of radio waves causing ill health have been in areas near radar bases but the Neillands' home is 20 miles from the nearest military establishment.

## 'Shoppers' walking off with TV sets

CHFEKY thieves are walking off with video recorders, stereo players and TV sets from shops, Ipswich Crime Prevention Panel heard last night.

Det. Ch. Inspector Eric Hopes, head of Ipswich Police Division CID, said that such incidents had occurred in Ipswich and Felixstowe.

Thieves posed as shoppers and suddenly picked up a set and made their escape.

The panel decided to take up an idea that shop managers should be encouraged to mark goods with a special pen when they are sold.

The marks only showed up under an ultra violet light and this enabled police to trace the owner when stolen property was recovered.

Ch. Inspector Hopes said that thefts from cars were still on the increase but the trend of stealing CB sets appeared to have died off completely.

He said that, although locking property away out of sight in vehicles was better than leaving them on view, some thieves went around with bunches of keys to enable them to unlock doors and boots. The answer was not to keep valuable property in cars.

Crime panel officers elected for the following year were: Chairman, Mr. F. Pearce; vice-chairman Ch. Supt. Coe and secretary, Sgt. Doug Corcoran.

York Health Department boss Trevor Phillips said, "We don't know the trouble comes from CB radio transmitters but vibration tests are to be made".

## Manchester Evening News

### Farm watch for CB-link rustlers

Farmers in the North West have launched a purge on CB-linked rustlers. Cattlemen, sheep farmers and the police have joined forces to track down the outlaws.

The National Farmers' Union in Lancashire have issued an eight-point list of guidelines to farmers. It includes 'riding the range' at night, checking live stock regularly and keeping a lookout for strangers in the area - especially cars parked at night sporting CB aerials and blocking field entrances in remote districts.

The Union's County Chairman, Mr. George Mason, said, "Livestock thefts have cost farmers in this county a great deal of money and we are determined to declare war on the rustlers. The most important part of the campaign is to alert the public, to exercise constant vigilance and report anything suspicious.

"We are determined to curb this insidious crime which can cause needless suffering to animals and could, if animals are slaughtered under primitive hygiene conditions, be a health risk to the public."

County Secretary Mr. Ernest Parker said there have been over 20 incidents reported in the past year and unless these hit-and-run raids are stopped, traditional farming operations could have to be abandoned.

## Daily Mail

### CB-fight woman faces prison

Housewife Helen Eyres is so sick of her life being ruined by CB radio fans that she is prepared to go to jail in her attempts to fight against them.

Mrs. Eyres, 41, faces prison because she refuses to pay her TV licence and

# Tony blasts bad buddies of the air

DISC Jockey Tony Blackburn is in a right old spin over his pet hate ... CB radio.

He reckons it's a turn-off because of foul-mouthed users who litter the airwaves with four-letter words.

"And he claims: 'If you want to listen to the thickest people in the world, buy a CB set.'

"It has attracted all the morons who don't want to do anything but swear their heads off."

Tony also has this advice for parents thinking of buying their kids CBs for Christmas: "Don't!"



TONY: "They're thick"

## Funny

The 39-year-old DJ, who hosts a Radio One weekend children's show, added: "The airwaves are full of innuendo and stupid conversations."

"But even that isn't as upsetting as the bad language."

"There's one group of CB users who call themselves the Squeakies."

"They jam up the channels with funny, high-pitched voices. I'll

never be able to understand that sort of mentality."

Tony believes the Government should step in to clean up Citizen's Band.

"If CB is used properly, as a short-distance means of instant communication, it could save lives in an emergency," he said.

"The £10 licence fee should be increased to deter all the morons who abuse it."

Brian Chalmers-Hunt, editor of CB World magazine, added: "Tony's right, CB has got into the wrong hands."

I wonder if the demise of Tony's CB shop and CB World has biased their opinions on CB?—Ed.

a fine as a protest against the interference from CB fans who constantly interrupt her TV programmes with foul language.

"It is destroying our family life and prison would be better than the hell we are going through," said Mrs. Eyres, who was fined £5 in August last year by Medway magistrates and has refused to pay the fine since then.

## Scotsman

### Ruffled feathers in CB battle over Baby Blue

The night Blue Feather challenged the boy friend of Baby Blue to a dual on the golf course at midnight, dozens of other breakers turned up to watch.

When Baby Blue (Sharon Gorman) arrived for the battle, she found that Blue Feather (David Dick) had turned white feather. The High Court in Glasgow heard that when Dick was traced to a house where he transmitted under the handle Blue Feather, he emerged holding an air rifle. He then shot Baby Blue in the stomach and she had to be rushed to hospital for an emergency operation.

"Doctors say she would have died if she had not received such prompt attention," said Mr. Andrew Hardie, prosecuting.

The judge, Lord Murray, sent Dick, of Greenock, to a young offenders' institution for 30 months.

The court was told that Blue Feather and Baby Blue knew each other through Baby Blue's visits to Blue Feather's sister. Blue Feather took an immediate dislike to her and when-

ever he heard her transmitting, he intercepted and made insulting remarks over the airwaves like "Blue Slut" and worse.

Baby Blue's boyfriend heard some of these remarks and challenged Blue Feather to a fight.

Mr. Edward Targowski, defending, said there had been bad blood between Blue Feather and Baby Blue for some time over the airwaves and the accused claimed Sharon also made insulting remarks. It was only when Sharon and a crowd of followers arrived at the house that David took flight.

## Sun

### CB sex beasts lure girls to horror

Sex fiends are luring young girls into traps by sweet talking them on CB radios. Police forces all over Britain are warning girls not to arrange dates in parks and lonely places with CB buddies and Radio Two Truckers' Hour DJ Sheila Tracey said she is pig sick of what is happening with CB.

"The main thing is that whatever is said, the girls must not give out their names and addresses."

On the South Coast, a young girl was sexually assaulted after arranging a CB-radio date in a park.

In Armthorpe, Yorks, a family of CB'ers have been so terrorized by death threats that they have asked for police help.

In Taunton, Somerset, a 14-year-old girl was wooed over the airwaves and forced to have sex in a car.

Sir Patrick Wall, Chairman of the Parliamentary CB Committee, told the Sun that he was pressing for safeguards - including the revoking of licences to prevent misuse of the sets.

## Manchester Evening News

### Crackdown on too blue bad buddies

Foul-mouthed CB radio users who abuse the airwaves with bad language could soon have their microphones silenced by Oldham Council, in an effort to stop the embarrassment caused to families who pick up their unwanted signals.

The council plans to introduce a system whereby home based CB operators will only be given temporary planning permission for their antennas. Approval would be given for a trial 12 months to see if there are any complaints from neighbours about interference or about the antenna being unsightly.

The council is also drawing up a list of guidelines as to what type of antenna will be allowed.

Mr. Les Coop, Borough Planning Officer, said, "It is obviously impossible to assess the extent of any interference before an antenna is erected, so granting temporary permission is a good safeguard.

"It also gives neighbours a chance to find out what will be the visual impact of an antenna in a neighbour's garden or on the roof."

The council also plans to clamp down on antennas used by taxi firms and even domestic TV viewers whose antenna is more than 9ft. tall.

## The Journal

### Mortal 'ghosts'

The Hallowe'en night vigil in a graveyard produced only one surprise for CB fan John 'The Whippet' Bland. That was when some youths crept up on him in the dark and asked him what he was doing. For the rest of the time, John, from County Durham, was too busy earning cash to worry about raising the dead. He was spending the night in the supposedly haunted graveyard of the 13th century St. Andrew's Church, South Church, near Bishop Auckland.

John pitched his tent next to a stone angel and whiled away the hours appealing to other breakers to donate money to buy a blind man a CB set.

"People say they have heard the angel flapping its wings," said John, "but I heard nothing while I was there." The Revd. John Anido said "I have been here for more than six years and have never heard or seen anything strange".

The cash raised by John's venture will be used to buy a rig for Mr. John Ward, of Coronation Avenue, Shildon.

**Is everyone called John in Bishop Auckland?**



## Charlie Tango is my handle

CHARLIE TANGO is one of Gwent's keenest CB fans. He does most of his chatting on the airwaves on his way home from the office - in his Rolls-Royce.

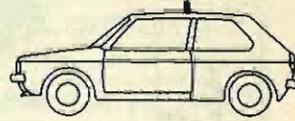
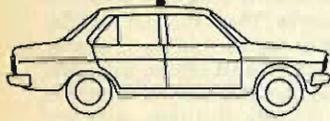
Because Charlie Tango is the CB handle of one of the county's most distinguished - yet unlikely - citizens band enthusiasts.

He's Colonel Kenneth Treasure, Gwent's colourful coroner, who is also a member of REACT, the breakers emergency group.

Col Treasure has been a CB fan for quite a time, yet his rig ended up in his Rolls-Royce by mistake. He had planned to use it in his home at Lower Machen, near Newport, and had left it on the back seat of his car.

But when he took it to be serviced, mechanics thought he wanted it fitted. So now it's a permanent fixture in his Roller.

# Mobile to mobile on 27MHz

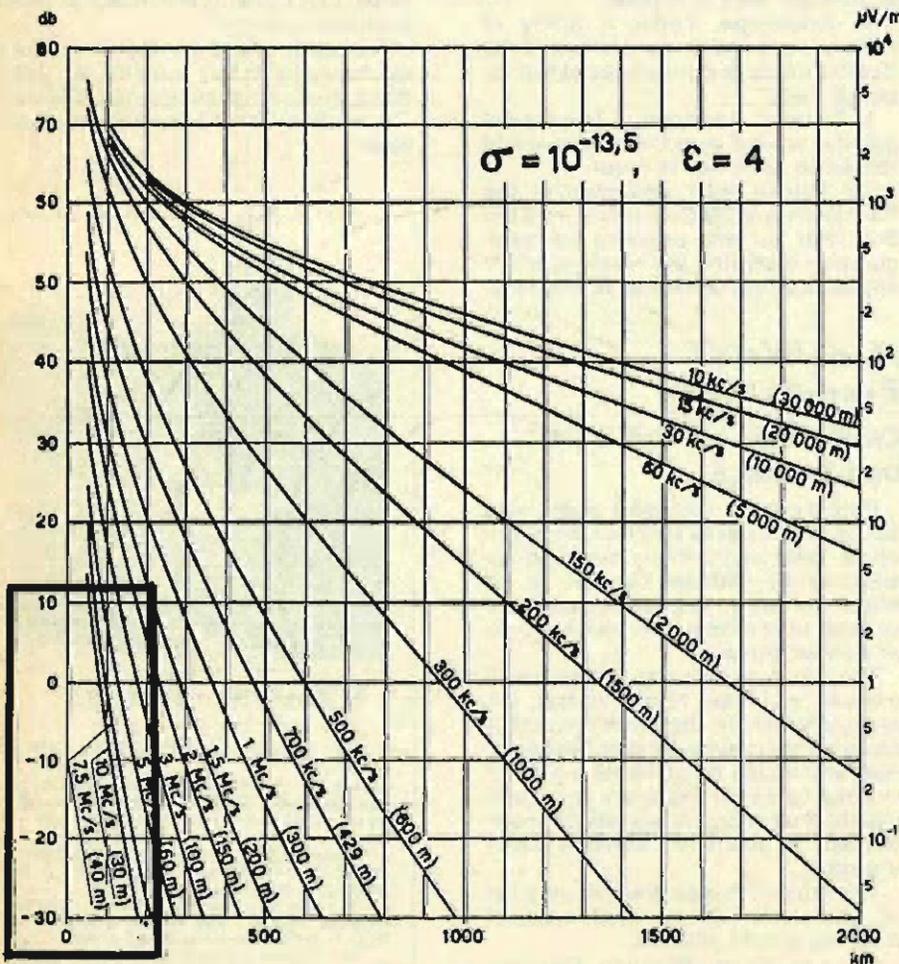


by F. C. Judd

Little has been written about the potentialities of mobile to mobile operation on 27MHz and which, as many have no doubt discovered, is rather disappointing, at least as far as working range is concerned. 'Freak' radio conditions have at odd times during summer months made it possible to achieve relatively long range contacts on 27MHz. These conditions, which must not be confused with short skip ionospheric reflection or

what is known as 'sporadic E' are or have been due to super-refraction by which radio waves are bent back to some distant point by certain conditions set up in the lower atmosphere known as the troposphere. It is possible that even some mobile operators have experienced this super-refraction but it is not a permanent condition and therefore cannot be relied upon.

The mobile station is otherwise lim-



★ inset

Propagation over land of moderate conductivity (conductivity  $\sigma = 10^{-13.5}$  e.m.u., dielectric constant  $\epsilon = 4$  e.s.u.) over long distances.  $E_1 = 300$  mV/m

Fig. 1.

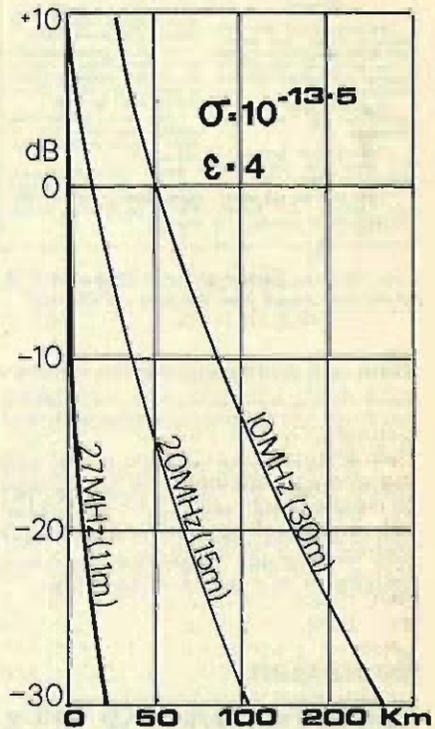


Fig. 2. (Inset) From Fig. 1 shows rate of attenuation down to 27MHz (see text).

ited to a working range determined by ground-path propagation and which may vary considerably because of the nature of the ground itself and the undulation of the terrain generally. The graphs in Fig. 1 show the attenuation of radio waves over ground that has moderately good conductivity ( $10^{-13.5}$  emu) at frequencies ranging from 10kHz (30,000 metres) right down to 7.5MHz (40 metres) which on this graph has the highest rate of attenuation of all. At 27MHz, however, ground path attenuation is even higher as can be seen by the graphs in Fig. 2 which is an inset from the main graphs in Fig. 1. As the frequency becomes higher, in this case from 10MHz (30 metres) and through 20MHz (15 metres) so the attenuation becomes higher and higher until we reach the highest of all at 27MHz.

## Mobile to mobile range

The graph in Fig. 3 illustrates more

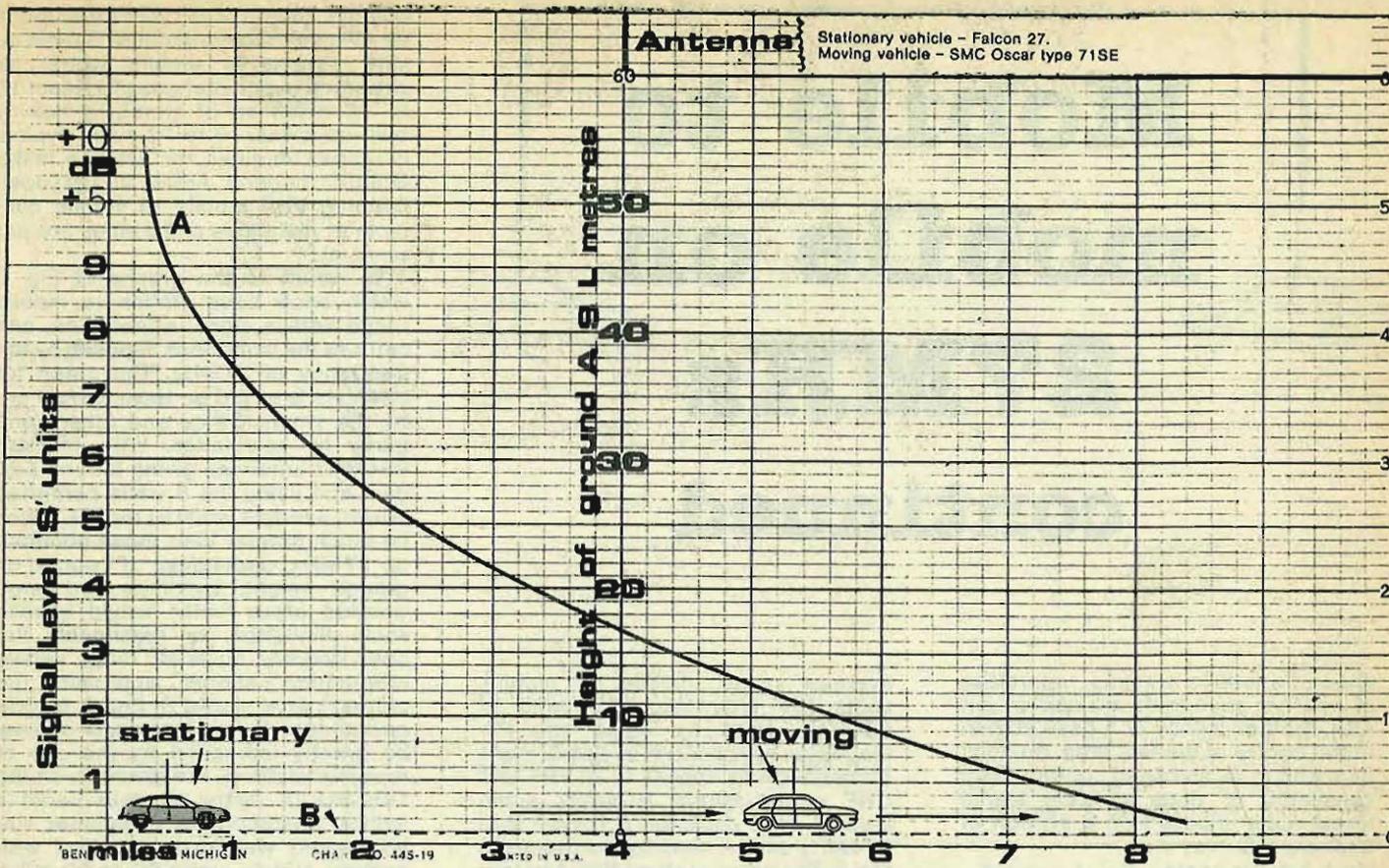


Fig. 3. Mobile to mobile. Rate of attenuation over a distance of eight miles under ideal conditions (see text).

dramatically this problem of ground-path attenuation at 27MHz and shows the average attainable range, mobile to mobile, each using a 4-watt CB FM set and rooftop antennas of 1.5 metres each carefully chosen for the highest efficiency, these being the SMC Oscar type 27 and the Falcon 27. Each antenna was carefully adjusted to obtain a near 1 to 1 VSWR. The trial course was over a nine-mile stretch of perfectly straight road absolutely level at one metre ASL running through open marshland having good conductivity and with no trees, buildings or overhead wires to cause effects by reflection, etc. At eight miles from the stationary mobile its signals were just and only just readable at S1. The curve (A) shows the rate of attenuation per mile and the dotted line at the bottom (B) shows the ground level constant at one metre ASL.

**Mobile antenna tests**

Tests on mobile antennas cannot be made on the basis of driving round in ever increasing circles unless done over perfectly flat ground without buildings, trees or overhead cables and telephone wires, etc. Some magazines show tests made on this basis and which are carried out in normal built-up areas and where the ground height may vary quite considerably. The basic method is shown in Fig. 4 but unless carried out under absolutely ideal conditions, as described above, can give no acceptable indication whatsoever of the real perform-

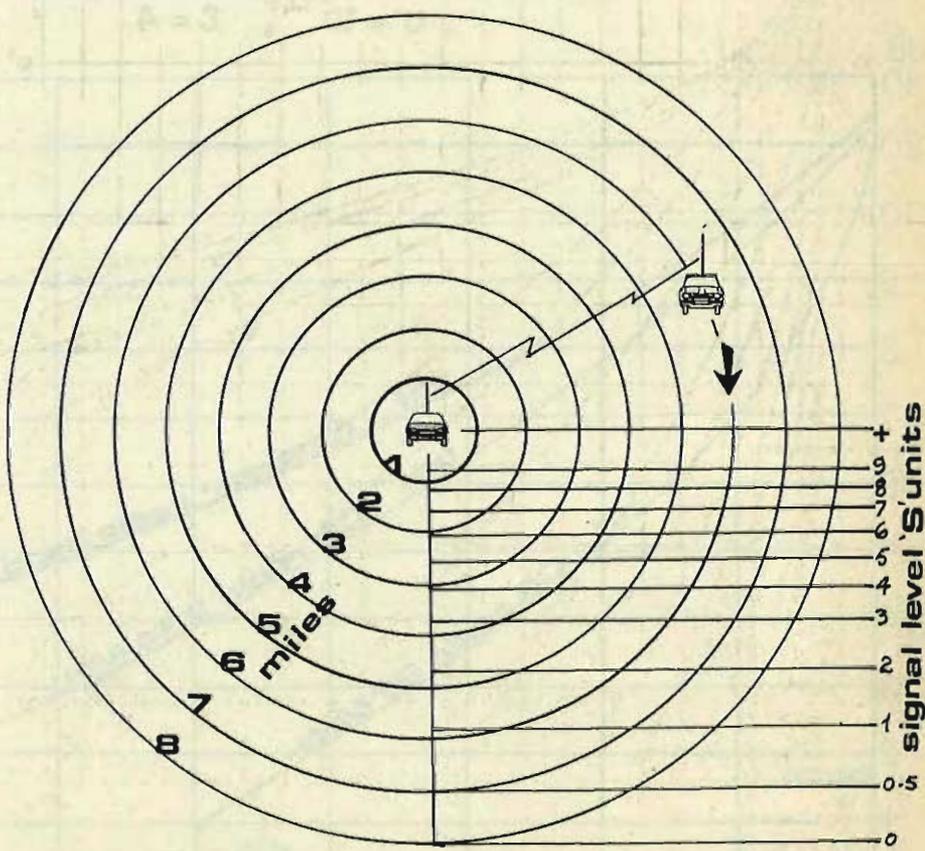
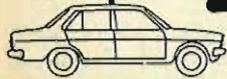


Fig. 4. The ambiguous so-called contour tests adopted by some magazines for checking the performance of mobile antennas (see text for further explanation).

# Mobile to mobile on 27MHz continued



country. Ranges can often be as much as 40 miles. Good readable signals on VHF mobile to mobile would be expected over distances of at least 15 to 18 miles or, at worst, in heavily built-up areas, 10 to 12 miles (typical of ranges obtained, for instance, in the Greater London Area). In flat open country, VHF mobile to mobile contacts at distances of 20 miles are not unusual.

To return to the graphs of Fig. 5 which show base station to mobile range versus signal attenuation, one can see the limitations imposed by the frequency of 27MHz. The graph for 934MHz is based on tests carried out by the Home Office and others and partly by calculation. With efficient 934MHz antennas giving around 5dB gain and using the 8 watts permitted power, average working ranges would be much greater than those obtained on 27MHz, depending, of course, on ground height, buildings and large wooded areas which would impose some limitation. In reasonably flat open country, however, range versus attenuation should approach the plotted curve shown in Fig. 5. Mobile operational distance could, of course, be greatly increased by the use of repeater stations. For example, on the 145MHz (2 metre amateur band) a mobile operating via a repeater station could well make contact with another mobile some 80 or 90 miles away. At last 934MHz equipment is beginning to filter through from the manufacturers.

ance of a mobile antenna, regardless of whether such tests are carried out with another mobile or a base station at the centre of the test area. So don't be taken in by so-called contour tests consisting of rings showing signal levels superimposed on a section of Ordnance Survey map.

## Would 934MHz be better?

It is difficult to estimate with any real degree of accuracy the probable

average range, mobile to mobile, using the alternative CB band of 934MHz. Here we come into the realms of *space-wave* or line-of-sight propagation as applies to all VHF and UHF transmissions. However, some idea of what could be achieved with 934MHz can be seen by the graphs in Fig. 5. The graph marked *VHF Amateur Radio Band 145MHz* (2 metres) is a good average for base station to mobile in fairly open and relatively flat

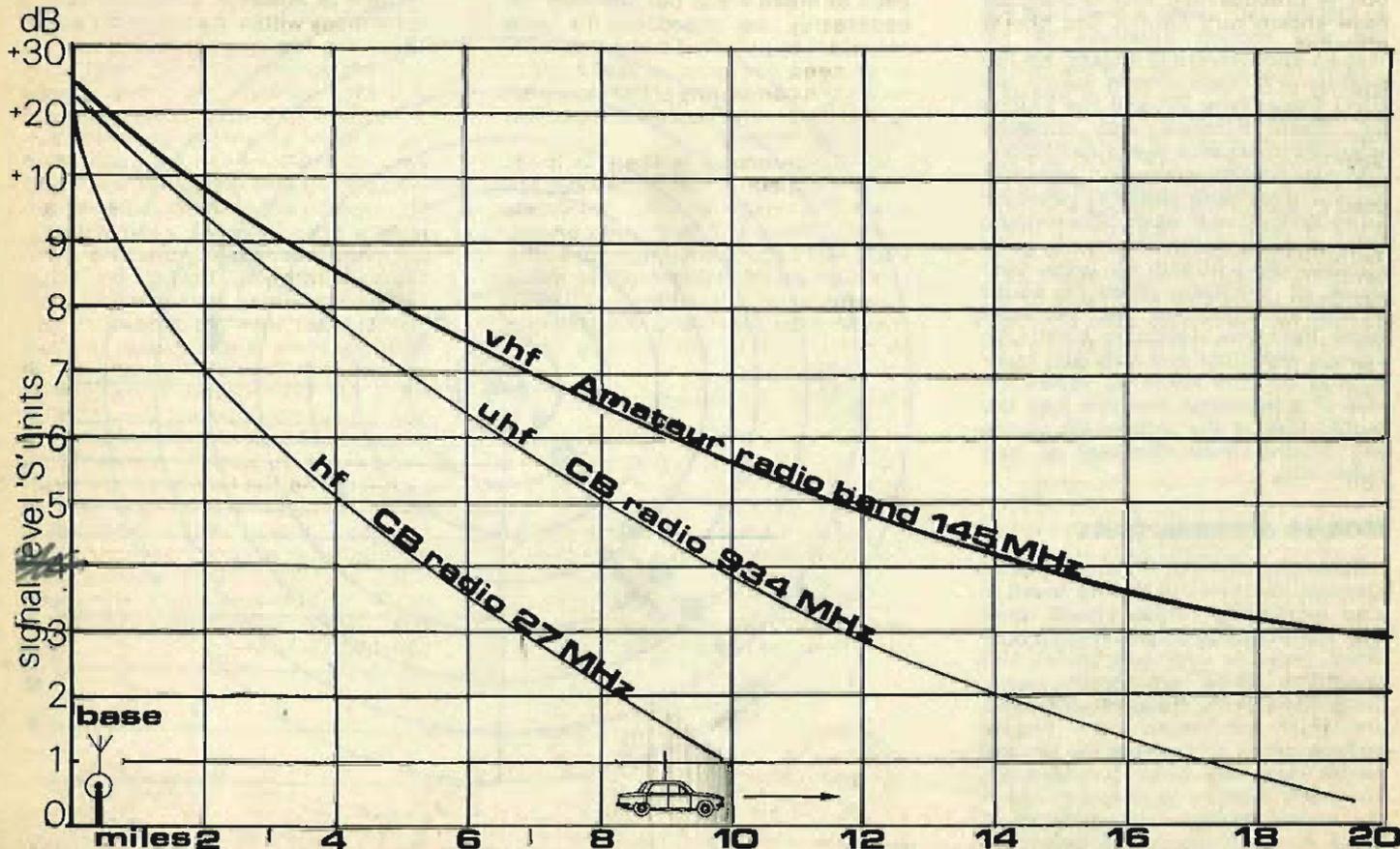


Fig. 5. Related attenuation versus range differences between the 27MHz and 934MHz CB bands and the 145MHz (2 metre) amateur VHF band (base station to mobile).

# Free

Although the Free Radio series came to an end some months ago, I did promise to keep readers up to date with news and developments. Admittedly, nothing as dramatic as legalization has happened but things have been happening in the free radio world.

## Community radio

An increasing amount of people are looking critically, rather than passively, at the content and programming of radio stations and asking for something better. Amongst the most vocal are community radio groups, who are actively pressuring for the legalization of stations catering to specific needs and interests. Although not necessarily linked to traditional pirate broadcasters, some groups are taking the law into their own hands, producing programmes and transmitting them on unlicensed stations.

Community radio already operates on a large scale in North America, Australia and Sweden, meeting the special requirements of different groups within a community. Of course, these countries have a different tradition of broadcasting and in the past have shown very flexible and liberal attitudes.

However, the British Government is looking seriously at community radio but it is likely to be some time (maybe running into years) before they consider the subject in real detail, as their immediate attention has been seduced by the high technology and high profit of cable and satellite TV. Indirectly, this eventually may prove to be beneficial to community interests as it has been suggested that cable could be used for community radio, although this has been tried in the past on a limited scale without any great degree of success.

The Government is known to be considering three types of station. The first of these is low power of a few watts, covering a radius of, perhaps, 2-4 kilometres, a second of, perhaps, 100W, which would cover a quarter of a large city like London or Manchester and a third of kilowatts giving a reception area similar to that of an independent local radio station. It is almost definite that the only permitted

mode would be FM.

It seems possible from past Government policy decisions on similar subjects that only one type will be selected and will be applied across the country. This would be against experience gained in other countries like Australia, where a particular area's broadcasting is appraised by its frequencies, coverage and content and a community station is fitted in to fill the gaps.

Apart from power and station locations, there are other things to be considered. The most important of these is station programming. There are three distinct types of programming for community radio and they really depend on the power allocated to the station. These three areas are:

- a) a purely neighbourhood station dealing with very local interests,
- b) specialist programming for ethnic or minority groups and
- c) specialist music stations offering a particular style not adequately covered for enthusiasts by existing stations.

Of course, many stations would probably like to give some time to each of these areas but this may not necessarily be practical. It's also important to point out that community radio need not only service a given area but a community of interests and, as such, a greater reception area than the name implies.

The Government is likely to insist that a prospective station can demonstrate financial viability, adequate staffing levels and technical competence. Attitudes to advertising are difficult to prejudge. It might well be that a Governmental definition of community radio precludes advertising - especially if they are required to be non-profit making.

## Free The Airwaves

Free Radio readers will remember the Free The Airwaves campaign from past articles and their stand at the 1982 CB Show. The campaign had started to disintegrate as several of the organizers became tied up with other projects. In an attempt to relaunch the campaign and, following two recent successful conferences on community and unlicensed radio, a

further conference was held in Cambridge in November to bring together the many individual elements from free radio.

Representatives from 19 stations, community radio groups and interested individuals met at the Wesley Centre to discuss an agenda which covered technical considerations, programming, the problems associated with possible legislation and proposals from CRADLE (the Campaign for Community Radio Licensing Experiments), who are preparing a proposal for community radio in London.

The conference had a fair degree of success in three fields. Firstly, it is an achievement in itself to bring together so many people and stations in a field that is notoriously individualistic. The conference also had tangible results, since a degree of technical co-operation was reached, a tape exchange established and a pilot scheme for legal advice set up.

The Free The Airwaves campaign was relaunched to co-ordinate the efforts of broadcasters and to campaign for and support local experimental licence bids.

There is, however, a major obstacle to harmony within the free radio world. There are two very distinct groups in unlicensed broadcasting, with very different motives and aims. Those concerned with community radio are involved in an almost political campaign to pressure for the legalization of specialist radio for particular needs. The traditionally 'pirate' element are kicking more obviously against establishment broadcasting and are often more anarchistic, having no other interests at heart than playing their type of music with lots of power. Some also enjoy the illegal aspect of their transmitting (something familiar to many AM CB'ers) and, since legislation is unlikely to permit them to play heavy metal rock at 6 kilowatts with a home-made transmitter across South East England, they are not really interested in legalization. Such diverse motives cannot really be united, although, if combined, they could well make the Government rethink attitudes to broadcasting in the same way CB'ers influenced thinking on communications.



# CLASSIFIED ADVERTS

10 Pence per word. (No minimum or maximum.) Display boxes £13 per 20mm depth (maximum 50 words per 20mm depth). Payment must be sent in advance with order, along with your name and address.

**HAVE YOU** just joined a DX or QSL club and found all you've got was a lump of rubber for your stamp? Don't be upset! We can let you have the base and handle to put it on. Just send £2.25 (inc. p&p) to Base and Handle, 10 Tolcarne Road, Newquay, Cornwall TR7 2NQ.

**PLASTIC MEMBERSHIP CARDS**

CB CLUB CARD  
HANDLE  
NO 012345

**EXACTLY LIKE A CREDIT CARD**

Same size, shape & material  
Printed any colour

INCLUDING  
FREE DESIGN, PROOF, SETUP  
artwork, p&p, c/m

ONLY £12.95 per 100

FOR FREE SAMPLES & ORDER FORM ☎ phone 0344 - 84455

or write to Data Plastics, DP House, The Ring, Bracknell, Berks

**CB ANTENNA CONSTRUCTION MANUAL.** Illustrated plans for 1/4-wave ground plane, 1/2-wave ground plane, two-element cubical quad, three-element beam, high-performance stacked beams. All for only £2 including postage. Build your own base station antenna and save heaps. **THE SSB ENGINEERING HANDBOOK** is the one all the pirates are talking about. Covers 39 different phase-locked loop integrated circuits including the very latest PLL IC's just now appearing on the CB scene. No experimenter's shack or CB workshop is complete without this handbook. Grab your copy before Buzby bans it! £12 including postage. **THE CB MODIFICATION HANDBOOK** is an absolute must for the serious pirate or DX'er. Everything from 'a few extra channels' to full-house conversions covering hundreds of channels, slides, increasing power, etc. (Buzby doesn't like this book either). £8 including postage. **THE LINEAR AMPLIFIER HANDBOOK** has 13 complete sets of transistor amplifier plans, HF, VHF and UHF, from 15 watts to 1,000 watts. Complete parts lists, circuit descriptions, component layouts and full-scale printed circuit negatives. £8 including postage. South Pacific Radio, PO Box 500, Fortitude Valley, Queensland, Australia 4006. **PERSONALIZED QSL's**, 1,000 £13.75. Handicards, 1,000 £8.70. DX logs (see samples). M. Hope, 89 Darwent Street, Consett DH8 8LT.

**EXECUTIVE-STYLE** engraved handle badge, only £1. Smartest on the market. Box 31, CB Radio Magazine, Tudor Works, Beaconsfield Road, Hayes, Middx.

**THE CB MODIFICATION HANDBOOK**... acclaimed by sidebanders worldwide, £8. **THE LINEAR AMPLIFIER HANDBOOK**... build your own CB or amateur linear and save a bundle, £8. **SSB ENGINEERING VOLUME ONE**... covers crystal synthesized and early PLL rigs, £10. **SSB ENGINEERING VOLUME TWO**... covers 'second generation' PPL rigs, £12. **CB ANTENNA CONSTRUCTION PLANS** for 1/4-wave groundplane, 1/2-wave groundplane, two-element cubical quad, three-element beam, stacked beams... all for only £2. All prices include postage. Payment by cash or bank draft only. (No personal cheques or British Postal Orders). Airmail price list £1... refundable with first order. No rip-offs here... same address since 1989. **SOUTH PACIFIC RADIO**, PO Box 500, Fortitude Valley, Queensland, Australia 4006.

**RIG DOCTORS.** Buy your ready-bullt conversion boards at trade prices, FM, etc. Crystals supplied. Details: KS Services, 90 Porter Road, Basingstoke, Hants. RG22 4JR. Basingstoke 51082.

**HANDLE LAPEL** badges professionally engraved and by return of post. £1.50 cash with order. Aylmer-Kelly-C, 2 Pickwick Road, Corsham, Wilts. SN13 9BJ.

**RAYMAC DISPLAY** for PVC club cards, club stickers, printed patch badges, PVC club card wallets, T-shirts, club eyeball badges printed to order plus slogan badges and stickers. Raymac Display, National Works, Bath Road, Hounslow. 01-570 9116.

CB PLL DATA BOOK-NEW INT'L EDITION

How they work & how to modify them. Complete specs on every PLL device including all U.K. chips. Easy non-technical reading!

"SCREWDRIVER EXPERT'S" GUIDE

The bible of DIY CB repairs! Each book \$16 or £10 incl. Air P&P (Cash, Bank Draft, VISA/MC). Free catalogue of unusual CB specialties with order.

ALWAYS A MONEY-BACK GUARANTEE

C.B. CITY INTERNATIONAL

P.O. Box 31500, Phoenix, AZ 85046 U.S.A.

**CLUB BADGES** professionally engraved, choice of colours. Discount for quantity. See for details to Artangle (Royston), 16 Kneesworth Street, Royston, Herts. SG8 5AA.

**UNION JACKS** for your QSL contacts, 3/4in. x 2in., self-adhesive, plastic coated, 100 flags for £3.50 inclusive. Cheques/PO's, KM Enterprises, 191 Joyners Field, Harlow, Essex CM18 7QD.

**PERSONALIZED KEY RINGS**, in black leather with gold lettering. Ideal to send with your QSL or for club members. Up to eight words £25.00 for 100 key rings. See for sample ring to Key Rings, 10 Tolcarne Road, Newquay, Cornwall TR7 2NQ.

**JOIN EGDx Club** £3. Use of our PO Box No. available. QSL's redirected. QSL cards supplied if required. Executive-style engraved handle or call sign badge £1. Box 31, CB Radio Magazine, Tudor Works, Beaconsfield Road, Hayes, Middx. UB4 0FL. **DO YOU QSL?** Our QSL rubber stamps are a must for all QSL/DX'ers. Also personalized and club stamps. For brochure, see to M&M Rubber Stamps, 10 Tolcarne Road, Newquay TR7 2NQ or tel. (06373) 3559.

**WEMBLEY FOR CB.** Special offers. LCL Communicator £45.95. Colt 355 UK £31.95. York JCB 861 £52.50. York JCB 863 £69.95. Harvard 405 (420M) £69.00. Harvard Home Base £96.60. Harvard 410T Handheld Rig £53.95. K40 Antenna £24.95. Whip-lash Antenna £7.50. Bremi 100W Mains Burner £79.95. Call or ring Tinsmann CB, 3.9 Wembley Commercial Centre, East Lane, Wembley, Middx. 01-904 3607.

**PYRAMID 11m CB** loft aerial. Designed for maximum performance at minimum cost. Superb AM/FM/SSB, e.g., delighted sidebander copied 7 States in one afternoon. Supplied complete with full instructions for just £5 inc. p&p. Why pay more? Send now for prompt dispatch. D. Knox, 20 Pullan Avenue, Eccleshill, Bradford BD2 3RT.

**AFTER GREAT** demand, Anglo American Sidebanders have now made their DX Manual available to all CB'ers. Copies for £1.50 inc. p&p from Anglo American, Coronation House, Tolcarne Road, Newquay, Cornwall.

MOONSHINE CB. TRIED US?

GPA 27 1/2 £17.95. Silver Rod £19.75  
Hamaster Leson 4200 £24.75  
Hamaster Leson 4500 £32.25  
25W burners £16.00  
RG8 43p/m. RG58 14p/m  
Rama PC5 £18.50. Rama.PC3.£14.00

Full range: antennas, Bremis, speakers, p/packs, masts, mikes, meters, connectors, etc.

Ring 01-348 1246 after 7.00pm Mon.-Sat.

## ARTWORK INFORMATION

**IMPORTANT. FILL IN ONLY THE DETAILS YOU WISH TO APPEAR ON YOUR CARD**

HANDLE \_\_\_\_\_ CHANNEL \_\_\_\_\_  
 PERSONAL \_\_\_\_\_ FREQUENCY \_\_\_\_\_  
 UNIT No. \_\_\_\_\_ SALUTATION \_\_\_\_\_  
 CLUB NAME \_\_\_\_\_ UNION JACK (OR OTHER) \_\_\_\_\_

ADDRESS \_\_\_\_\_

SUGGESTED DIAGRAM \_\_\_\_\_

DO YOU REQUIRE TO SEE A PROOF OF YOUR DESIGN BEFORE IT IS PRINTED AT THE EXTRA COST OF £10? \_\_\_\_\_

Unless a proof is required we reserve the right to design and despatch your order without notice and can accept no responsibility for your copy errors and/or your dislike of design and/or layout nor any other error howsoever caused.

## ORDER FORM

NAME \_\_\_\_\_  
 ADDRESS \_\_\_\_\_

PHONE No. \_\_\_\_\_

I enclose a cheque or PO payable to Laser Litho Ltd. for £ \_\_\_\_\_  
 as payment for \_\_\_\_\_

Send see for single and multi-colour price list and samples.

Send your order and payment to:  
**LASER LITHO LTD.**  
**TUDOR WORKS**  
**BEACONSFIELD ROAD**  
**HAYES, MIDDX.**  
**UB4 0FL**

Please allow 28-40 days' delivery from receipt of order.

THIS ARTWORK AND ORDER WILL NOT BE PROCESSED UNLESS THIS SLIP IS ACCOMPANIED BY FULL PAYMENT

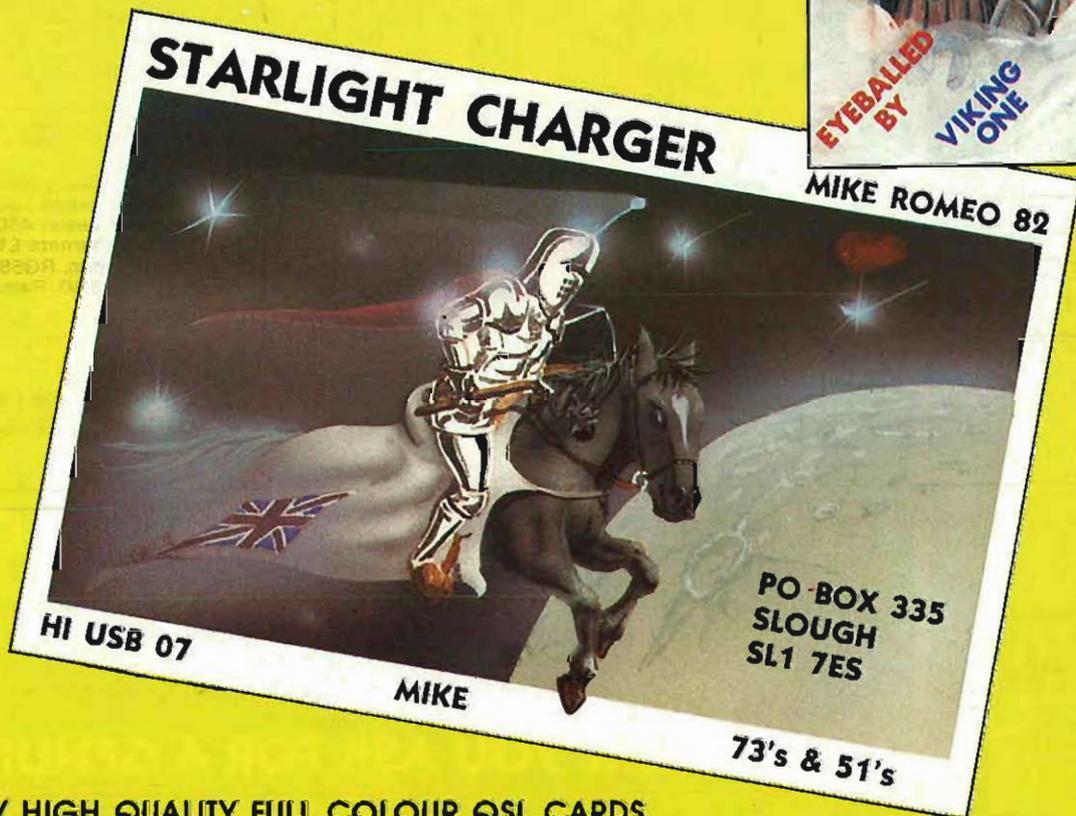
# CQ - DX - QSL

The easier you make it for us,  
the cheaper we make it for you

## Full process colour QSL or eyeball cards

GLOSSY HIGH QUALITY  
FULL COLOUR EYEBALL CARDS

**500 for only £34.50** inc. VAT & p & p  
**1,000 for only £46.50** p & p  
Full colour 2½ x 3¼ (credit card size)



GLOSSY HIGH QUALITY FULL COLOUR QSL CARDS

**500 for only £46.50** inc. VAT & p & p  
**1,000 for only £58.50** p & p  
Full colour 5½ x 3¼ (post card size)  
with standard QSL post card back

### WHAT YOU GET

This price includes us designing your card to name, handle, club or even business, printing your photograph (or drawing if you supply a negative), our VAT, postage and packing. ● Anything else will cost extra.

### EXTRAS

Approval of design before printing £10  
Range of colours on design £3  
Your photograph instead of drawing £3  
(negative supplied by you)

### ALTERNATIVE ARTWORK

If you have a QSL card that you like then send us one used and one indicating the colour and changes (no extra charge).

<<<< See col

# Z27<sup>®</sup>

## THE FASTEST SELLING CB ANTENNA

10,000 CB'ers a month  
cannot be wrong

MAKE SURE YOU ASK FOR A GENUINE Z27



**THORO  
BRO**



Grantham

London, N17

