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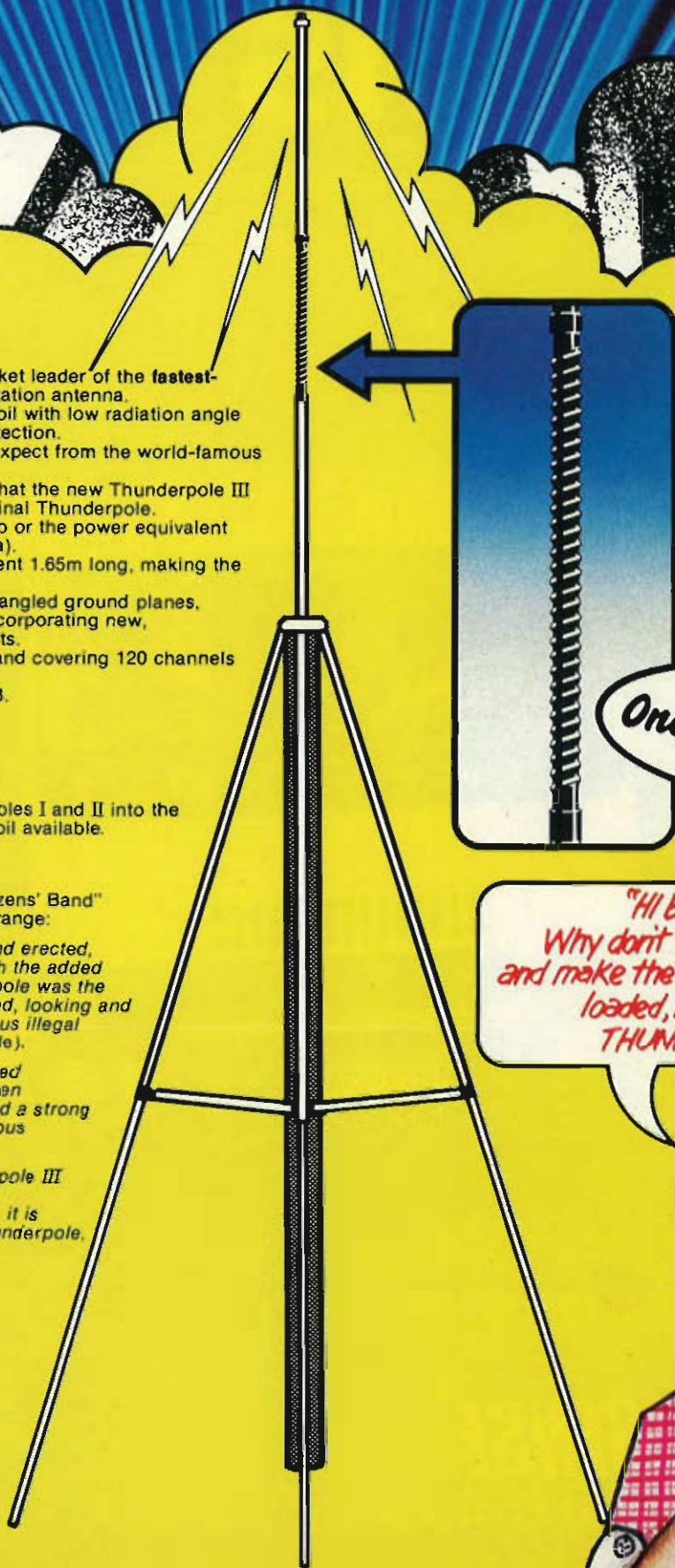
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One Step Ahead of
the Rest!

"HI BREAKERS!
Why don't you jump the skip
and make the trip with the centre-
loaded, helically wound
THUNDERPOLE III"



CB Citizens' Band

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JULY 1986 VOLUME 5 NUMBER 8



Inside this month

Keith Townsend takes a look at the world of trucking and CB

Editor Eamonn Percival
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THE 1986 CATALOGUES

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UPDATE

**NEWS
FROM
THE
WORLD
OF
CB
NEWS
FROM
THE
WORLD
OF
CB
NEWS
FROM
THE
WORLD**

Editorial

Firstly this month, I would like to thank everyone who helped organise the 1986 CB & Radio Big Meet held at Stanley in Co Durham on Sunday 27th April. The organisers, the Great British QSL DX Club and, in particular, Des Currie made us feel very welcome indeed and made sure we enjoyed a fabulous weekend.

Over 3,000 people visited the Meet and it was very pleasant to speak to many of our loyal readers. In particular, it was nice to talk to Mystery Man, Jedi Knight, Kermit, Rockabilly, Exterminator (you still owe me for the autograph, Wullie) and the amazing Blue Eyes.

The stands were mostly CB and QSL club stands plus one or two small traders but there was a tremendous camaraderie between everyone there. This, to me, is the acceptable side of CB. There was no bickering or petty jealousy, everybody was interested in everyone else's stands and one breaker I spoke to joined no

less than eight clubs on the day!

The evening prior to the event was a social night in a local club and the atmosphere again was friendly and relaxed. Everybody seemed to be spending the whole night introducing everybody to everyone else. All in all, a good time was had by all. I mustn't forget to say hello to Jean and Christiane from the French *Radio CB Magazine* and their interpreter Ludovic. Keep up the good work, *mes amis*.

I also met a couple of people involved with REACT teams from Derby and Nuneaton who presented me with bundles of paperwork involving membership disputes. The two cases were entirely separate but, sadly, both told the same tale of renewals not being renewed due to personal squabbles. Now, as I have said before, it is impossible for the magazine to get involved in these situations. How can we fairly treat the information given us? Perhaps report it? OK, here goes: Derby REACT have had a row and so have

Nuneaton REACT. What else can we say? It saddens me to hear tales like this when an organisation like REACT does so much good work.

Over recent months, I have heard a few comments about people having difficulty obtaining *Citizens' Band* at their local newsagents. Well, availability will vary from area to area — just like any other magazine. Moreover, with specialist magazines such as ourselves, the number of magazines stocked by any particular newsagent will depend upon the amount of interest in the hobby in the area. Also, consider the newsagents point of view. Shelf space is at a premium and rather more people take *Radio Times* than *Citizens' Band*! If you are having difficulty getting hold of your copy, you could try ordering it every month from the newsagent or why not take advantage of our subscriptions department? You will find the details on the Reader Services page every month in the magazine.

Eamonn Percival

Portable Carrying Case

Some people have got it and others haven't. Many people of limited income have dreamed of owning a second, portable set. I have met many people who have built their own portable set-ups using available materials, but you can't beat the real thing. Recently introduced has been such an accessory. From the Stockport CB Centre comes a portable carrying case for the smaller mobile CB rigs such as Uniace 100, Audioline 340 — or any other rig that will fit. The internal dimensions of the semi-rigid plastic case are 140 x 45 x 300mm.

Power can be supplied by a rechargeable battery

pack of which the most popular is the Yaesu 12 volt which can be found in most security alarm shops. Also supplied with the case is a metal antenna bracket, fastened by means of the rig's mobile bracket screws. Most mobile antennas and mounts are suitable although obviously the shorter types would be best.

The case (plus strap), priced £6.95 plus 75p P&P, is available from Stockport CB Centre, 14 Buxton Road, Heaviley, Stockport, Cheshire (061-477-6483). In addition, they carry a wide range of CB equipment and accessories and offer a 24-hour delivery service. Trade enquiries are welcome.

Mack the Hack

Sponsored Talk-In

REACT Southampton have asked us to help them with fundraising for their local ambulance station, so here goes. Every year, REACT Southampton have a stand at the Southampton Show, at which they organise a sponsored 'talk-in' where breakers can call in and pledge money to this worthwhile cause. This year, it is being held from 4th July to 6th July.

Any breakers wishing to help should call in on channel 27 during the period and if anyone else wishes to contribute, they can contact REACT Southampton, PO Box 79, Southampton.

Over the past two years, the team has managed to raise over £600 for local charities. This year, the money is going to purchase Life Paks for the ambulances.



CB Friends' Dedication

A founder member of the Tango Kilo group and his wife, who died within a few months of each other last year, were recently honoured by their friends of the airwaves when a seat, dedicated to their memory, was unveiled in Castle Walk, Tonbridge.

Mr Robert Crouch and his wife Doris made many

friends through CB and a spokesman for the group said that the couple had a cherished place in their memories. Mr Crouch used the callsign Tango Kilo 07 and the group stated that, in his memory, no-one else will use the same callsign.

At the age of 83, Mr Crouch was probably the oldest breaker in the area and he first came on the air with the Tango Kilos in 1982.

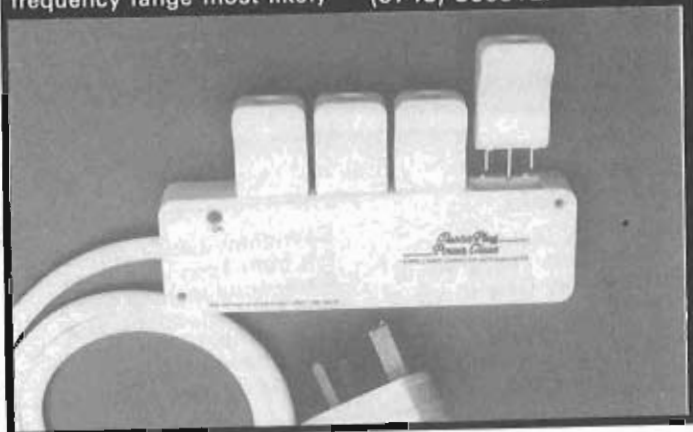
Masterplug Powerclean

Masterpiece Products recently announced the introduction of a new four-to-one mains connector with mains filter. The Masterplug Powerclean is designed to provide protection and increase immunity to interference on all small electrical appliances.

It also incorporates a passive filter network, which provides attenuation of voltage 'spikes' in the frequency range most likely

to cause problems (up to 30MHz). It comes complete with mains cable, 13 amp plug and four fused miniature plugs. It is claimed that electrical noise (for example, carrier signals from broadcasting, fluorescent lights, adjacent computers and on-off switching of equipment) is suppressed by up to 50dB.

The Powerclean retails at under £20 (including VAT). More details can be obtained from Masterpiece Products, Annscroft, Shrewsbury. Telephone (0743) 860512.



Grey Beard's Gleanings

Hi there, first of all, thank you for all your letters and cards that keep arriving here (much to our postman's disgust!). A special hello to my good friend "Ironsides" up there in Hull. Thanks for the SAE, mate, I'll get back to you shortly. Nice QSL card too!

Several "Wheelchair Warriors", no doubt thinking about the warmer weather, have written to me asking to recommend a rig for use in their wheelchair. Without doubt, by far the best rig is one that is not in need of coupling to the 'chair's electrics. This restricts your choice to either a hand-held or a self-contained rig of a portable nature. I am not too keen on hand-helds because of the need for several sets of Nicad rechargeable batteries, since a change of batteries is almost certainly going to be needed during a day out.

My personal choice is the Westward PT2 portable. This rig has an inbuilt 12v rechargeable battery that will allow extended use of at least 36 hours (in practice this is not as long as I get from my PT2 on one charge!). The PT2 can be used just about anywhere and is frequently recommended for use in cars with "difficult" electrics (no transfer of interference through a common power source).

Although a Rubber Duck and a ¼ wave whip can be fitted as standard, I prefer to mount an antenna on the metal of the handle behind me — after all, this is normally the highest point on the 'chair. Fitting is by means of a mirror-mount bracket. Obviously, the choice of antenna is up to the individual, but my favourites are to be found amongst the Modulator range from Les Wallen. For more details of handhelds see your local CB dealer, and for up to date information on the PT2, an SAE to: West Ward Electronics, The Mill House, Tuckenhay, Totnes, Devon. TQ9 7EL.

I have been accused of

pushing the local dealer's help and advice far too often in this column. I admit it! After all, that is what he is there for. He can advise on suitable equipment, prices and may even make his assistance with base antenna mounting available to you. I know it isn't a perfect world and that some dealers are better than others, so I certainly don't recommend that you get mixed up with a bad one! The major mail-order companies (Telecomms, Truck-King, etc.) are able to advise on suitability, availability, prices and so on, plus they all have enough faith in their ranges to offer guaranteed back-up and after-sales service. Addresses elsewhere in the magazine.

No one seems to want to admit to using their computer in their CB hobby. Nor does any software writer want to tell me of their programs for CBers. I am still on the lookout, however.

Is anyone using the Modulator Co-linear antenna regularly? Let me know how it performs, and if you are happy with it or not, please.

Is your local CB club in need of a national charity to support, or indeed, are you in the same boat? Since we take the ability to hold a radio conversation for granted, I would like to draw your attention to a less fortunate section of the population — the profoundly deaf. By helping to provide Teletext TV sets to allow the deaf to have the subtitle facility with some programmes and more importantly, to be able to get an up-to-date news service and much more. For more information on these facts, drop me a line, together with an SAE for the address of this Charity. Please help to improve the quality of everyday living for those that live in silent isolation.

Well it is time to wrap it up for another issue, please drop me a line if you can help out with any of the queries, 73's.

The Grey Beard



UPDATE



New Record Aided by CB and Ham

A licenced radio ham has set a new record for the run from John O'Groats to Land's End.

Mike Butler (38) from Basildon in Essex completed the trip on an ELVA, the new all-British electric vehicle which promises to transform the lives of elderly or disabled people with a mobility problem.

Mike undertook the run to raise funds for research into the disease from which he and two of his daughters suffer. From birth, he has been a victim of Neurofibromatosis, a genetic disorder which affects one in every 3000 people in the UK and which was brought to the public's attention in the film *The*

Elephant Man. Although Mike's symptoms are comparatively mild, his 13-year-old daughter has already suffered the loss of a leg through NF.

At present there is neither treatment nor cure for the disease and Mike's drive raised funds for the charity LINK which plans to establish a central clinic for sufferers and encourage vitally needed research.

Mike carried with him a hand-held FM transceiver on the ELVA and CB equipment in the support van so he was not short of company on the lonelier stretches of the road. As well as making many new friends, he received invaluable help from CB and amateur radio enthusiasts along the route and would like to thank all concerned for their assistance and support.

The Bear Facts

Radio Investigation Officers were surprised to hear the sound of children's nursery rhymes coming over the channels in Nottingham recently.

They tracked down the source to Steven Whitehead's home in Aspley, where they found a copy of *Rupert Sings Nursery Rhymes* on his tape deck! Whitehead admitted

three offences involving the illegal use of CB but said he had sold his rig five minutes before they had called.

Magistrates fined him £130 and ordered him to pay £62.95 costs.

● Elsewhere in Nottingham, Gordon Papworth of Radford was fined £100 plus £62.60 costs for using illegal equipment and not having a licence. He was also ordered to forfeit £550 worth of equipment.

National Modulation For the Blind

Figures have just been released about the National Modulation held on September 21st last year to help the blind. The event was a runaway success with over 5,000 copies logged and 2,838 cards returned. A total of over £360 was raised, enough to equip another ten blind people with CB rigs.

The organisation, CB For The Blind, say that the number of blind persons on channel is well in excess of

400 — that is, those they know of. There must be hundreds of others elsewhere throughout the UK. If anyone knows of a blind person who would like to be on channel, they can contact the National Organiser, CB for the Blind, 56 Ramsay Crescent, Bathgate, West Lothian, Scotland. The only condition is that they must be registered as blind.

Our thanks, incidentally, to Norman (Mystery Man) who supplied us with this information and who played no small part in helping the Modulation.

FCC Conversion Boards

S J Tonks (CB Components) who market the FCC conversion board featured a few months ago, have asked us to reprint the following notice which each customer is given with his board. As much confusion has arisen recently about the legality of fitting these boards, we feel it is important to reproduce it as follows.

"We have been asked by the Department of Trade and Industry to point out that the fitting of any frequency conversion board inside a rig can render the owner/user of the rig liable to prosecution.

This is still the case, even if the non-UK frequency section is not connected, if it could be made to work by the simple addition of an IC or a wire, for instance.

The non-UK channels are still being used by old people's homes and paging systems and it is *still not legal* to use those frequencies.

The CEPT recommendations require more stringent control of spurious emissions (interference) than the current UK specification MPT1320. Consequently, it is likely that a UK rig with frequency conversion will not meet the new standard when it is finally introduced in this country. This is not a fault of the conversion, but of the rig itself which is built to meet the MPT1320 standard.

This statement is going to ruin our sales figures but, as a responsible company, we want you to know the facts. To stay within the law, you *must not* fit a conversion board unless and until the DTI approve such a method."

Charity Gala

The Pudsey District Breakers from Leeds are to hold a charity Gala in aid of Motor Neurone Disease on Sunday 29th June.

The gala, will be held on the Soldiers Field,

Roundhay, Leeds and will run from 1pm until 6pm. Attractions include five-a-side football, sponsored cycle run plus the appearance of a TV personality from *Emmerdale Farm*.

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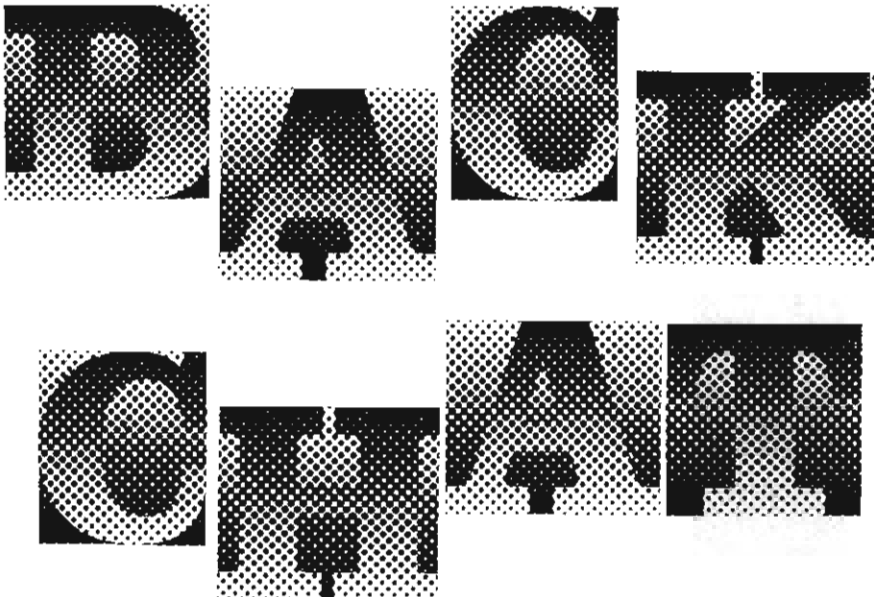
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Bouquets and Brickbats

From Yeovil in Somerset, Emperor has some constructive criticism of our magazine...

I have just managed to obtain a copy of your mag. I don't understand why newsagents say there is no demand for C.B. mags, and if you are not in the newsagents' on the day they arrive you can't get one. The recent demise of C.B. mags would certainly bear out the newsagents' point to a certain extent, but as a member of the buying public it looks as though the newsagents don't take enough stock, thus making sure all copies are sold and therefore no unsold stock is left.

Your recent editions have prompted me to dig out the typewriter and dust it off with regard to the letters from Moody Blue, Sierra Lima 17 of Kent and Moonbase Alpha of Wimborne. These letters typify the antics of the legal breakers, and the old adage "a little knowledge is a dangerous thing". Dangerous to the breaker on SSB down the road who is blamed, through ignorance, for causing the dreaded sideband interference. If only breakers would take the time to find out the facts first. Your so-called Legal Breakers with your extra 25 watts, 1/2 wave twigs, over-deviation rigs and rigs that the local rig doctor has tweaked up make my blood boil. On numerous occasions while visiting Cbers or chatting on the legal F.M., I hear them say, "I can't hear, I'm getting sideband", only to find that they are suffering from bleedover from an adjacent or close channel. This so-called sideband interference you all complain about is due to the poor adjacent channel rejection of your rig. This can be improved by a competent rig doctor fitting components and/or extra circuits. You see, most of the blame that is attributed to your local SSB operator is purely due to a total lack of understanding by legal F.M. breakers, I know there are a few twits on SSB (we have had some some in this area). Any I find who are

operating and causing interference to legal F.M. are asked politely to move channel. The SSB operator does not, in the main, want to cause interference and invariably does not.

The letters you get in Back Chat from ex-SSB and ex-FM operators who have gone Ham, and presume to know it all, pick holes in anything that is not exact, and proceed to talk down their nose to CB operators. They do it on SSB, FM and even in a CB mag and, may I add, thank goodness they are not all like that. How much better it would be to try and help those who get it wrong, instead of showing the barbaric instinct of tearing them to bits. This comment on interference is very interesting, because the unmodulated carrier wave of both modes is *exactly the same*. So either system will produce exactly the same amount of interference, the difference only comes when they are modulated. All carrier waves, no matter how they are modulated, have the same interference potential so don't be misled by current arguments.

Some of Mack's items are of interest: here we have the one-time campaigner who goes legal FM, takes his ham, and then runs down anything that is not within the law. What about the demonstration march and open-air rally in Brighton on Sat 18th Oct 1979 or the mass demo in Trafalgar Square on July 6th 1980? Were we not outside of the law then?

We must campaign for a better system. Anyone familiar with the long and, at times, bitter campaign for legal CB will recognize we were sold down the river, when Britain co-signed the Treaty of Rome in 1973 and CEPT agreed to adopt 27MHz for the UK. Why did it take 8 years to get CB? Why, when a Parliamentary Committee stressed the need for harmonization in Europe, given that 55 countries out of 61 allowed 27MHz AM/SSB did we go FM? The point was also made that the de-rating of twigs was unnecessary. In reply to a question by Major Sir Patrick



Campaigns are effective, says Emperor (first letter)

Wall, the Minister concerned said "There are strong arguments on regulatory, administrative and social grounds against the introduction of CB radio."

They also took the view that a different frequency would allow British manufacturers to catch up; even they missed the boat. And, yes, I do operate legal FM, FM and SSB legally on bands close to even ham operators, so come on, let's have greater harmony between all CBers, unite for a common cause to expand CB from its limited legal 40. Three million into 40 won't go no matter how you try. This is the major problem.

The Way We Were

Woodpecker of Cambridge writes...

How right Lyndon (*Citizens' Band* November 1985) is, concerning the proposed change of frequencies for 27MHz FM. I would raise the following points in favour of leaving things as they are.

Assuming there is to be a change-over day, what do the DTI propose to do about the thousands of rigs already in use? No way are all breakers going to suddenly junk their 27/81 'legal' sets to buy new CEPT sets. I am told it will cost around £25 to convert existing sets or £120+ for new CEPT rigs. One can only assume that this will revert things back to Day One of legal FM — sets were in excess of £80 but, within two months, prices had dropped to £25. Are breakers really that gullible to go through the whole process again?

If, as Lyndon says, the problem of continental sideband interference will be much worse, what good will 27 MHz CB be anyway?

Unless the DTI are prepared to clean up British CB and gain the respect of decent breakers, they might as well go home and fly their kites. The bucketmouths and wallies will stick to the British frequencies and cause the same amount of hassle and interference as ever. Maybe a few hundred hardened enthusiasts will convert to CEPT as with 934, but these will be very few compared with the present number of breakers — on the decline anyway.

Who is going to manufacture and stock the new sets? Many manufacturers and distributors burnt their hands with the present sets, hence the cheapo prices when they off-loaded them in a big way via the large discount stores.

To sum up, I think this is the thin edge of the wedge by the DTI to finish off British CB by forcing the price of sets beyond the range of the average breaker. May I suggest that all breakers and yourselves start lobbying John Butcher to forget his plans to change to the CEPT frequencies and tidy up what we already have.

Give Us a Ring

Lemon Popsicle, secretary of the Greater Manchester Monitoring Association, wants some phone numbers. . .

As you can see from my address I am a monitor from the Wigan area and we are not members of the REACT although we work in close harmony with them when the situation arises. My official identity is Hotel Delta 04 (my handle however is Lemon Popsicle — I'm just an ordinary breaker) and together with the other members of the team we are trying to improve our service both to other breakers and to local communities around our area.

Besides monitoring channel 9 and trying to help out other breakers and also keep it clear from wallies, we also offer a monitoring service for events such as carnivals and marathons which organizers have found to be beneficial and have praised our efforts.

However, the main reason I am writing to you is to ask for your help in '10-5'ing a message to readers of this magazine. Quite often we get breakers on channel 9 who want a message passing on to another area and I realise it would be much easier to pick up the phone and guarantee that any message does get through. I am therefore trying to build up a 'Catalogue' of phone numbers, which will be kept *totally* confidential, so that we can improve our service, and, you never know, it could become nationwide.

If any of your readers are willing to

join this phone-line they can write to me, Lemon Popsicle, GMMA, PO Box 143, Wigan.

Keep CB Clean

A representative from KCBC, a new monitoring group, writes asking for members. . .

You have recently carried comment and features on monitoring and DF groups. May we tell you about ours? The following is going to sound like a piece of Blarney but with the gear we use, we can locate a station in almost the amount of time it takes to drive from where we are to where the signal originates from. It is fast. It is accurate. So good, in fact, that our area is almost 100 per cent free from wallies. We get a little "passing trade" from the odd mobile but if we want some real fun we now have to drive 14 to 20 miles from the home base before we can even begin to look round!

We are quite well known locally and are often called in by various groups and organisations to locate 27MHz problems; we claim that if they are on the air we can find 'em! Consequently, we are interested in hearing from any (and all) other DF groups or individuals who, like us, are fed up with CB misusers and who do something about it.

We have established a 'code of conduct' among ourselves that seems to work quite well and we usually find we can manage to persuade misusers to 'reform' without any problems — this does not involve any rough stuff or verbal aggression on or off the air.

We would like to meet and/or exchange experiences, information, details of equipment and methods used with all responsible DF operators from all over the country with the aim of making CB a better medium for everyone to use.

As we know from our own experience that DFing can be quite hazardous at times, we would treat any contact with utmost confidence; no personal details of any kind would ever be given to any other person or group at any time. An information exchange to

improve techniques and supply updated information on this subject is urgently needed. Get in touch with us. Your experiences, your methods may be better than ours; you might even learn something that will improve your skills. So let's hear from you all — old hands, newcomers and those who would like to find out how to de-wallify their own areas.

A few final points. We are not 'cowboys'. We are not 'vigilantes'. We are not 'para-Busbies'. We do not 'inform' on misusers to the DTI because that takes too long and causes too much bad feeling between local breakers. We are just a group of ordinary breakers doing what we can to enjoy ourselves, our families and our neighbours to enjoy our chosen hobby without being subjected to bucketmouths, dead-keyers and morons. Care to join us?

Anyone interested in learning more about KCBC should write to this magazine with 'KCBC' clearly marked on the envelope.

Any Old Handsets?

Rambler writes a nice begging letter from Shrewsbury. . .

This is a begging letter. I am a Venture Scout leader and this year my unit will be doing a lot of work as 'service teams' at events organised by various organisations, such as the local day centres for the physically handicapped and other such groups.

On a lot of the events we will be spread all over the area and instant communication is essential. Now we come to the begging side of this letter. As funds are very limited, do any readers have an odd 2-channel handset lying about which they could donate? Condition is not too important as we may well be able to do minor repairs.

Knowing the generous nature of breakers, I would like to thank you all in advance.

If anyone has an old 2-channel handset and are willing to donate it to a good cause, Rambler can be contacted at 46, Old Heath, Heathgates, Shrewsbury.

We're Here, Speedbird

Lesley Wyld, on behalf of REACT UK writes in reply to a recent letter from Speedbird. . .

Oh dearie me, Speedbird. What a terrible to do!

Firstly, please accept our deepest apologies for not having responded to you, but I so assure you that you have encountered neither a closed shop nor plain ignorance.

React United Kingdom has a National Management Committee, (with 5 addresses), and a National Registered Address. Until recently, this Registered National Address was a PO Box, on the grounds that it was easy to remember, and also that it

would remain static regardless of changes in administration. However, experience taught us that people don't like talking to a box! So, for everyone's future reference, the Registered Office of React UK is Rotherwood Cottage, Dale Rd South, Darley Dale, Matlock, Derbyshire, DE4 2EU.

I would point out that no-one on the Management Committee has received your correspondence, and we even have a mail re-direct on previous addresses.

Now, Speedbird of Cornwall, do write to me and I promise to reply. Unless there is a Bermuda Triangle out there in the postal system, we should be able to communicate at last!

By the way, there are more Indians than Chiefs in React, and everyone is doing fine! Looking forward to hearing from you soon.

No National Body?

Martyn, founder of the Ham International Owners Club, writes from PO Box 8, Mirfield, West Yorkshire with a complaint or two...

May I raise one or two issues through your magazine? Having attended the Big Meeting at Stanley the other week, I was a little distressed to find there was no-one representing the so-called national CB bodies.

Although, in retrospect, this is hardly surprising as in the five years I have been involved with the administration of the Ham International group, I have had only one communication from Natcolcibar and this was a duplicated letter sent by one of our club members.

To satisfy my curiosity, I rang the DTI this week to ask if they had any liaison with a body on a similar line to the RSGB for the radio amateurs. The person I spoke to was not very helpful but said that, as far as he knew, there was no similar relationship in existence. As it was a long-distance call, I didn't think it was worth the expense to pursue the matter.

As you are now the only remaining CB magazine, I would have thought that your pages would have provided the ideal forum for keeping people informed of developments. Alas, this has not been the case.

I hope this letter will provoke some response and may I ask that if anyone wishes a personal reply could they include a SASE as I expect a few letters.

We feel we must disagree with you on one point, Martyn. We keep our readers informed of any development in the CB world as you will have seen if you look back at recent issues, covering new equipment and the latest news from the Department of Trade and Industry. As far as an "ideal forum" is concerned, that's what these letters pages are for — news, views and opinions from readers such as yourself.

Good Riddance?

Ray Williams of Grantham is pleased to see the back of our rig and antenna checklists. . .

Well, I must congratulate you. I went into my local W H Smiths this morning to buy *Citizens' Band*, but with some misgivings. If the pages of listings at the back were in this issue, loyalty or not I was packing it in. A quick glance and there these pages aren't. Thank you and yes, those extra pages are appreciated. As a disabled pensioner, pennies do count but I shall remain a reader.

I operate CB on both 27MHz and 934MHz but also have another unusual hobby. I collect and restore Cats Whisker crystal sets from the 1920s era. If anyone knows of any of these sets, I would be grateful to hear from them.

If any readers do know of any of these old sets, write to Ray at 62 Kingscliffe Road, Grantham, Lincs.

Thank You CB

Tim Beaumont, events organiser of the Godiva DX Group of Kenilworth, writes with news of a recent appeal. . .

I would like to thank *Citizens' Band* magazine for the support our club was given with our 24-hour sponsored modulation in aid of the BBC Children In Need Appeal in November.

I am proud to announce that the amount raised so far is £1,673.09p. We are keeping the account open until November 1986 as we missed the closing of the main appeal. So, we will add to this figure through 1986 to present the cheque to the BBC.

I would also like to thank Mr Keith Townsend whose article "CB at the BBC" was accurate and very well written. Thank you!

Wrong!

Sheriff Mike, from Bristol, wishes to take up a recent comment from The Grey Beard...

With reference to Grey Beard's Gleanings in the May issue of *Citizens' Band*, he states that using a Pulsar mini-beam for reception only is legal. This is not so and I quote from page 2 of the DTI's Information Sheet No 6 dated June 1984: "The installation or use of antennas outside the licence descriptions, even if only used for reception, constitutes an offence."

I suggest you inform your readers in a later edition.

You're quite right, Sheriff. Grey Beard's comment slipped by without us noticing. Antenna regulations at the moment can be a little confusing and we apologise if we inadvertently misled any of our readers.

Mack Chat



A strong wind causes a spot of bother for Mack

Wasn't it windy that Monday? I am sure you know the Monday I mean. The one when fences blew down, high-sided vehicles got blown on their sides, corrugated iron sheets were flying around like tissues and the elderly were cuddling lampposts for support.

Many stations were put off the air that day as antennas ceased to be called such and were reduced to scrap. Before going to work that day I checked my antennas and my tower, and all seemed quite secure. Of course, at that time, the wind was not so bad but worse was forecast by the weather people. This time they got it right; seeing the destruction during the day, I started to worry.

Arriving home after work I didn't really expect to see any of my antennas still in their original positions but yes, my 2-metre co-linear was still on the chimney stack, my 27 DPA was still attached to the wall but my tower with 2-metre beams and 934 antennas had a Pisa look with a definite tilt.

On inspection I found that one of the three leg bolts had bent and other support bolts had worked loose. The bent bolt being of mild steel was replaced with one of high tensile steel and other weak points were strengthened. Whilst the tower was down, I had the opportunity to modify the antenna system. The 2-metre quads were removed as they were not used much anyway and the consequent loss of weight would benefit the tower in the future.

I was presented recently with a Crestbyte APT 605 twin-input, switchable pre-amp with the new power module for the masthead to replace the standard masthead pre-amp that I had been using. As you may be aware, the legal power out of a 934 rig to the antenna is 8 watts, and it's legal to use co-linears and beam antennas with up to 4 elements. So legally you are allowed to radiate 25 watts out of the antennas. The problem in the past has been getting the 8 watts from the rig to antenna, even if the rig puts out 8 watts (normally 3-5) it loses some during its travel through the co-ax. With the Crestbyte APT 605, if you can get 3 watts to this device at the masthead it

will deliver 8 watts into your antenna.

What a difference it made when the tower was re-erected, the stations that I could hear with the old pre-amp and could not hear me now can, even without pre-amps their end.

For some time now I have been putting the MT 370 hand portable 934 rig through its paces. At weekends I have been taking the rig (and my dogs) to the top of our local hill and have surprised both myself and the stations worked with its performance. It's like that beer, it gets to places other rigs cannot reach. In its portable mode, I have not yet picked up any cellular interference with it.

Even when I drive to the local tower block that supports the cellular radio antennas no interference was heard as the rig scanned the channels. As a home set-up powered by a 13.8 supply via the AC-DC converter and legal antenna set at legal height, no phone interference is heard. Even with the antenna mounted a little higher some interference is evident but never as bad as in the past and, as I stated earlier, even weak 934 stations get over most of the interference.

On the afternoon of April 6th some unusual distances were reached by 934 stations. Conditions were down so what was the answer to this phenomenon? Some bright spark went and built an experimental repeater station. With some modification to two Delta Ones that were placed in a car parked on the South Downs in Sussex, stations along the South Coast were working into London and surrounding counties and other places that they cannot normally get to. The best contacts were, so my informant SL 06 Mac of Lancing, tells me was from the Isle of Wight to North London and Swindon.

Whilst chatting to Mac about the repeater experiment he told me of a wally that they had in their area on the 934. This geezer, it seems, bought a secondhand 934 rig and after a short while realised that this frequency was too sensible for him so he started doing his silly things. The 934 users ignored him but he followed them up or down the channels. So what did the genuine 934 people do? They bought the wally out. Yes, they made him an offer for his 934 set that he could not

refuse. Of course the wally, realising that he was not making any impression on the 934, accepted the offer and once more 934 is back to normal on the South Coast.

I was disturbed when I read in Q & A (May issue of this mag) that the DTI will not allow the old and new 27 MHz frequencies in one radio. Why not, I ask? If one puts a conversion board into their rig and uses both sets of frequencies when they are both legal and then disconnects what will be the old channels when the transition period is over, what harm will be done? Do the DTI really think that we will be going out and buying new non-existent (at present) rigs? Not likely says I. If it is not allowed, then I'll maybe convert one of my rigs to the new channels and leave the other on the old, connect both rigs to the same antenna via an antenna switch and I'll still be able to use the old and new together. But what's the difference if I use one rig with both sets of frequencies? Surely what I read cannot be true.

Still may people out there in CB-land moan about the wally element that haunts the CB frequencies. When is something going to be done about it, they cry. Sitting on their butts cursing the DTI for no action. Well it seems not all of the CB users do nothing. Some have taken action to eliminate the curse. You will have read by now about the group that call themselves The Monitoring Service Great Britain Ltd. None of the bully-boy tactics here, it seems, but friendly polite and fair warning is given to the offenders and it seems to be working. Tired of the channel abusers, this group went out and obtained direction finding equipment and set about clearing up the channels. I don't suppose that they will be able to cover all the country and one could not expect them to. At first, when this team appeared on the scene, questions were being asked about who they were and their anonymity put the wind up many of the abusers of the band. In future, you lot out there who moan about the wallies of your area, get off your butts. You have seen that it is possible to clear the QRM off the channels so you have no excuses. It would not surprise me if we soon see branches of MSGB Ltd springing up in many parts of the country.

On the basis of prevention being better than cure, I wish to know the right steps to take to avoid causing TVI, a matter to which I attach considerable importance as my fellow residents of the mobile home park are also retired and rely heavily on television for their entertainment. I would not wish to spoil their pleasure.

I enclose drawings of my location, from which you can see the relative positions of surrounding television aerials and the proposed site of my mast, which would require the use of about 15 metres of coaxial cable. I would appreciate your advice as to the suitability of the proposed site, together with any relevant comments and would also like to know whether you consider RG8 cable suitable for a run of this length.

A Well, Mr Elworthy, I am delighted to hear that you are getting such pleasure from your station, though I must agree that you need a more efficient antenna. Given the relative locations you have so carefully described, I can see no more suitable location for your mast, since it will be behind the local television aerials and sufficiently distant from that that it should not create many problems.

There can never be any guarantee that you will not encounter break-through and you may find that you need to investigate specific cases once your station is fully operational, dependant upon the quality and standard of maintenance of your neighbours' television and antenna systems but I am certain that your proposals represent the least likely route to any problems.

RG8 is ideally suited to this type of installation, though it may need to be supported along its length, both to prevent it from placing a strain on the connecting points and to prevent excessive swaying. I do not recommend laying it along the ground, as this leaves it prey to damp and to possible damage.

A bad case of the jumps

Up in Solihull, West Midlands, Firefly, Phil to his friends, has suddenly developed ignition interference ...

Q I have had my present car, a Ford Cortina, for about four years now and until recently I have had no problems in running my Cybernet rig in it. During the last few days I have noticed a heavy crackling noise on all but the very strongest received signals. I am told that the noise is coming from my own ignition system, which is electronic, but I am at a loss to understand why the interference should suddenly occur, or what to do to put things right. Please can you offer any advice?

A There are a number of possible points from which your interference might originate, Phil, and from your comments it should be fairly easily cured. If you have the type of electronic ignition which uses contact breaker points then first check that the points are in good condition and set at the



Firefly's Cybernet is being 'interfered' with

proper gap. Next do the same for your spark plugs and if the problem still persists you might try a new set of plug leads.

Most modern ignition systems use carbon as a conductor, rather than the once popular copper wire variety, mainly because in good condition they are less likely to cause radio interference. The trouble comes when the carbon begins to break down, leaving a slight gap somewhere along the length of the lead. Because an ignition spark is strong enough to jump the small gap you are unlikely to notice any reduction in the car's performance for quite a while. In fact I have even heard some mechanics say that a small break in the lead results in improved performance by creating a fatter spark at the plug but I cannot vouch for it.

So far as your rig is concerned, the interference which you are experiencing might well be the product of the arcing created as the spark jumps this gap in the lead, which I am reliably informed gets larger and larger, until it becomes too great for the spark to jump, at which point the car will begin to misfire.

Also check on the condition of the distributor cap. Clean the contacts and make sure that the cap does not contain any cracks, since they will not only cause radio interference but also harbour dirt and carbon particles which can severely affect the running of the car.

It is worth making sure that the earth contact to your antenna has not become corroded, since this would also tend to invite ignition interference.

Christmas came early this year

Tony Doige, from Newhaven has what sounds like a pretty expensive problem ...

Q I am off the air at the moment because of something which occurred a few nights ago. I was talking to a

group of local breakers when, all of a sudden everything went haywire. There was a loud "pop" from my rig, after which it stopped transmitting. At the same time the panel lights lit up like a Christmas tree and the SWR went through the roof. I can find nothing wrong with my aerial or the coaxial cable which could account for the high SWR. Please can you help?

A From what you tell me, Tony, it sounds as though the original problem was a fault at the power supply unit which caused it to deliver more than the required 13.8 Volts to the rig. This would account for the extra brightness of the fascia bulbs and the suddenness with which you were put off the air.

I say the original fault because your reference to a loud "pop", combined with the high SWR, points to something, possibly even the PA stage, having blown in your rig.

Before taking the rig in for repair I would try transmitting from a different psu since, if any damage has been done to the rig, you are unlikely to make it worse but I most certainly would not use your own psu again under any circumstances before it has been thoroughly checked over.

Problems should be sent to:
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- How to wire any mike to any radio. Includes many common mike problems.
- How to 'peak out' transmitters and receivers for greatest range.
- How to recognize the most common faulty parts, find an inexpensive substitute part, and replace it yourself!
- Unusual tricks and methods for curing TVI and ignition noise problems.
- How to add extra channels to both crystal and PLL rigs.
- How to make SSB Clarifiers slide on TRANSMIT too.
- Simple AM-to-FM conversions.
- Specific power/modulation adjustments for most popular models.
- Unique Troubleshooting Chart to quickly isolate a problem.

FEATURES

- How they work, in detailed, easy-to-understand terms.
- How to modify them for many more channels.
- How the PLL circuit is used to generate FM transmission and the SSB 'slider' shift.
- How they provide the required signals for CB transceiver operation. Most common circuits illustrated in very simple block diagram form.
- Pin-by-pin function description of nearly every PLL device ever used. Over 80 specific ICs including manufacturers' cross-references.
- Specific lists of every known CB model using a particular PLL circuit. This big new International Edition covers all the most popular, classic PLL circuits. Plus all the latest state-of-the-art devices used for CB synthesizers throughout the world. Required reading for every serious CB operator!

AT LAST — A SIMPLE TO FIT D.I.Y. 40 CHANNEL ADD ON BOARD

It is expected that sometime this year the new European CEPT frequency will be announced and at some time after this a transition period for existing UK CB radios to be converted to this new frequency will be allowed. The frequencies will be from 26.965 to 27.405 mhz with the usual 10kc steps as in the original FCC frequency. When this happens it is almost certain there will be very few if any new radios with these frequencies available here and what may be available will almost

NB. Whilst no special technical ability is required to fit the board successfully, it is necessary to be competent with a soldering iron.

Full supply and fit service available. Phone for details.



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certainly be very expensive. You can avoid the rush, (remember there are around 3 million sets in the UK) by buying our simple easy to fit, 40 channel synthesiser board. This will give you the new 40 plus the existing UK 40 and you can start converting as soon as the changeover period is given the go ahead. Remember that this frequency is legal for use now in most European countries so you can of course use your radio if travelling abroad.

IMPORTANT NOTE

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- ★ Replacement synthesised board
- ★ Designed by a leading British technician
- ★ Supplied with full, easy to follow instructions
- ★ Requires no special technical knowledge
- ★ Can be set up using only a monitor CB radio (such as a walkie-talkie)
- ★ Suitable for all radios (except Magpie, Mercury, Compact).
- ★ Each board quality tested individually before despatch.

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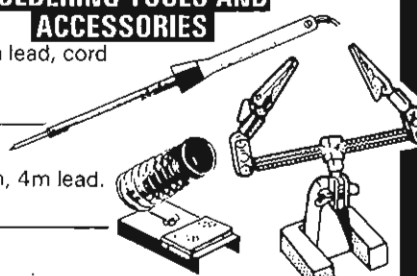
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26-page book includes PB010 chassis (COBRA 148GTL-DX, SUPERSTAR 360), PC999 (GRANT), and PB042 (JACKSON) in one complete book. Also applicable to Stalker SFDX export, and American AR-144 type chassis. Written by Lou Franklin, this is the only service manual in existence. Complete specs, voltage measurements, stage gain measurements, theory including detailed PLL description, complete alignment instructions and layout, block diagram. Special addition describes modifications and improvements for each chassis. Large 11" x 17" schematics for each chassis.

CYBERNET SERVICE MANUAL £6

24-page book includes PCMA001S, PTBM125A4X/PTBM131A4X, PTBM133A4X, PTBM121D4X Models: Cobra GTL150, 148GTL-DX (fake), Coil 320FM, 320DX, 1200DX, 1600DX, 2000DX, 2400, Excalibur, Falcon 2000, Ham International Concordo III, Concordo III, Jumbo III, Multimode III, MyGan 2795, 2795DX, 8795 (V), Intek 1200FM, Lafayette 1800, 2400, HB870AFS, Midland 7001 export, MongOOSE 2000, Nalo 2090, Pacific 160, Palomar 2400, 5000, Starfire DX, Superstar 2000, 2200, Thunder 2000, Tinstar 747, 777, 797. Written by Lou Franklin, this is the only service manual available for these radios. Complete specs, voltage measurements, theory, PLL charts, alignment instructions and layout, block diagram. Large 11" x 17" schematics of each chassis.

We are pleased to offer this month 3 special purchase books at great price savings. All 3 titles are published by the highly respected NEWNES TECHNICAL LIBRARY and all 3 deal with the various aspects of British CB, its uses and installation and its servicing. The authors are all experts in their field and this series is highly recommended as being both informative and excellent value for money.

QUESTIONS AND ANSWERS — CB RADIO by FRED JUDD, 102 pages.

Covers around 150 of the most common queries regarding both 27MHz and 934 and its uses and procedures including working range, AM & SSB wave, deviation, ERP, controls on CB, speech processing, handhelds, sensitivity, selectivity, linears, harmonics, TVI, db gain, VOX, seccall CB specifications and what they mean, setting up home base and mobile switch, ignition/interference, propagation, antennas, and CB selection, codes of procedure, 10 code, phonetic alphabet, RST and Q code, DSL cards. Glossary of technical terms plus many helpful diagrams and illustrations. An invaluable and clearly written reference handbook.

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THE UK CB HANDBOOK by ALAN AINSLIE, 150 pages

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PUBLISHER'S PRICE £4.95 — AVAILABLE EXCLUSIVELY FROM US AT

£2.95

SERVICING UK CB RADIO by MICHAEL TOOLEY, 259 pages

This book is the only publication dealing exclusively with the principles and practice of servicing UK CB and is intended for both hobbyist and professional engineers. It covers, stage-by-stage, typical CB circuitry including many representative UK circuits and block diagrams in a clearly explained, easy to follow manner. Other chapters examine all aspects of setting up a workshop, detailing all essential equipment, plus performance testing with comprehensive fault finding charts and diagnosis. Details of synthesiser, transmitter and receiver alignments and modulator stages are given plus a useful reference section with component symbols and colour codes. An invaluable reference work for anyone interested in the interior workings of British CB equipment.

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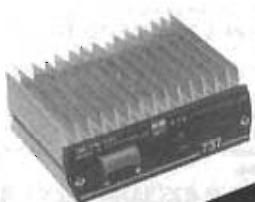
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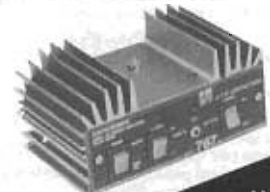
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David Shepherdson comes up with more names and addresses

This month it may be as well for me to start off with a request to any clubs or individuals who either are, or intend to organise a QSL meet or Eyeball. Please do give me plenty of notice, at least three months, and preferably four! At the time of writing I've received a couple of letters about National Eyeball/Meetings only weeks before the actual date, although one did forget to say where, and even when it was to be held!

Well, back in the February issue I mentioned that a certain Tourist Board showed some interest in QSLing. This was the Largs branch of the Scottish Tourist Board, and as far as I know, the only one in the UK. It's headed by Michael (*A-Team*) and he writes to say if you are holidaying in the area you are more than welcome to call in and say hi! QSLs should be sent c/o the Largs PO Box and if you enclose a SASE (Self Addressed Stamped Envelope) and ask nicely, you may even get a bundle of free QSL cards! A reminder about Michael and his team dropped through my letterbox recently and, looking through the brochure of the area, it's a lovely part of the Highlands, and close to the Isle of Arran too.

One other Tourist Board Office which deserves a mention here is the Ross & Cromarty, which helps out a local CB/International QSL Club by various means. The club is the Rocky Mountain Breakers of Dingwall. Now this area is beautiful as I know from personal experience having relations

COMMUNICATION THE QSL WAY

in the area. Membership of the RMB costs £5 plus 10 of your signed and dated QSLs for which you get your RMB Unit No, ID card, certificate, rubber stamp, 10 club cards, exchange cards, tourist info etc. The Club accepts both UK postal orders and cheques, which should be made out to the Rocky Mountain Breakers (DX Section).

To anyone who has been awaiting a reply from Fred (*"Hotel" 01*) of the Headache Control Club in Northampton, Fred send his apologies for this, due to the arrival of a new QSLer (a baby girl), the proud, if shattered, parents cannot get into too much of a routine. Anyway, Fred and Diana are catching up with their postbag and also they ask for any and all post to be sent via PO Box 105 as they have moved house recently. For costs of membership to their excellent club, please drop a line to the club address with SASE for reply.

Some news in from County Durham now of some new cards from Dennis (*Applejack*) in the Currie "Collector Series". Dennis has also set up the Currie Card Collectors Club which caters for QSLers who hold personalised Currie Cards. Membership costs a mere £1 plus a large SASE (with 34p in stamps) and 10 of your personal Currie Cards. Dennis promises that your package will be sent within seven days and the contents include 'Q' & 10 codes, swap & club QSLs, certificates etc but he does stress that the cards *must* be your own personal Currie cards.

Another multi-C club is the County Colour Card Collectors Club of Canterbury, also known as the "5 C's". This one costs rather more at £7 (cash only) with 20 personal cards. There are three main sections to the club, these being collectors (Full Colour Cards Series), QSLers and DXers and the club does ask you to state which categories you feel describe you best. Your pack consists of your Unit No, ID card and certificate, club FCC cards, stamp, sew-on-badge, and at least 50 FCC cards and a surprise item.

Okay, names and addresses start

off here with a very polite reminder from Ellen (*Money Penny*) and Ian (*Convoy*) of Brentford who write in asking for me to remember to mention them. From Vange in Essex comes a superb card from Arthur (*Highway Man*) while from Godalming in Surrey comes a bunch of POMA cards from Ian (*Kestrel*) who is also UK PRO for the Zeemeermin Club in Holland, for details of this club please contact Ian. From Doncaster hails a new QSLer, that's Toby (*Phantom 4*) with a trio of club cards asking for your help to add to his collection. Now, from Southampton I've a couple of Aztec cards from Paul and Joe (*Tweedle-Dee and Tweedle-Dum*), these cards are the first I have actually seen of Aztec, but going from the quality, I doubt that they will be the last! I don't know how much they are, though I doubt if they are very cheap, but for this type, a sort of cartoon/photograph, you must expect to pay a little extra.

Now, last month I mentioned a French club and said that the club cards had a "Winkels Tripel" displayed and suggested you look it up in a dictionary, but also that I would say what it was this month. Well, it's just one of those "flat Earth" pictures you see in many atlases.

Around the time you should be reading this, Jim Bruce of the Viking Radio DX Club will be on holiday in the Romney Marsh area between June 25th and July 2nd. Anyone who would like to meet Jim and say hello personally will be made most welcome. Frank (*VR 249*) has arranged for a meeting to be held at the Old Lighthouse, Dungeness Point, Romney Marsh, Kent from noon, Sunday 29th of June. For further details please contact Frank on Dymchurch 872785 or drop him a line (with SASE).

More names here, seeing as I've still got a few here wishing me a Merry Christmas (just goes to show how far behind I am in sorting out my post!). From Camberley hails the Womble with a different card, whilst from Sheffield comes Liam (*The Crusader*) who

QSLer ADDRESSES

G Sawyer (*The Womble*)

Toby (*Phantom 4*)

Ian (*Kestrel*)
Ellen & Ian
(*Money Penny*)
Liam (*Crusader*)

Pete (*Sprinter*)
John (*Jumbo Jet*)

Andy (*Andy Pandy*)

Carl (*Red Rum*)
Ethel & Frank (*Snowflake*)
Frank (*VR 249*)

Michael (*A-Team*)

Joey & Paul
(*T-Dum & T-Dee*)
Arthur (*Highway Man*)

92 Glassonby Walk, Camberley,
Surrey.
PO Box 101, Doncaster, South
Yorkshire.
PO Box 2, Godalming, Surrey.
PO Box 23, Brentford, Middlesex.

25 Banner Cross Road, Sheffield,
Yorkshire.
SF 216, PO Box 116, Derby.
11 Scotts Tec, Hetton-le-Hole,
Tyne & Wear.
56 Miller Crescent, Hartlepool,
Cleveland.

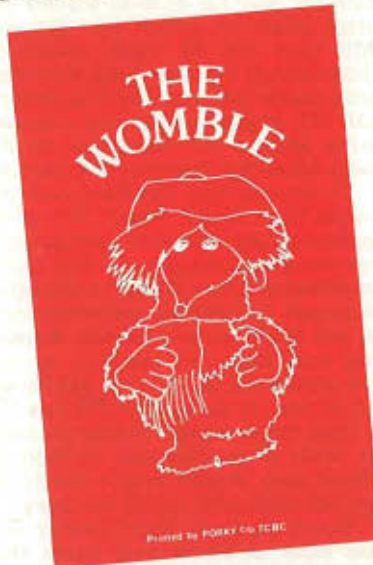
PO Box 6, Tadcaster.
PO Box IW14, Leeds.
56 Brockman Cres, Dymchurch,
Kent.
PO Box 1, Tourist Info Centre,
Promenade, Largs, Scotland.
SN 135 & SN 136, PO Box 57,
Southampton.
165 Rydene Place, Vange, Basildon,
Essex.

is new to QSLing though he has been a reader of this mag for some time and would appreciate a mention and hopefully many of you will be happy to swop QSLs with him.

From Sheffield to Leeds now with a bundle of cards and a letter asking for a mention from Ethel (*Snowflake*) and Frank (*Panasonic*) accompanied by their new Charlie, Ensign and Midas Cards, well worth a good QSL. I received a couple of QSL packages the same day recently; one consisted of a scrap of paper torn out of a note book, asking for a "mention" without a single QSL card or QSL, so I won't give his name to save embarrassing the guy. The other was from Carl (*Red Rum*) of Tadcaster. There were eyeball cards and addressed eyeball cards at that, fancy-edged cards, gloss and matt club cards and highly individual personal cards too. In all, there were 50 cards in that bundle! Well done Carl, you really mean it when you say you QSL 100%!

Every now and then I hear from a club which is not a QSL club as such, but a group of local lads and lassies who have got together to raise funds for a charity. The latest of these is the Ultrasonic Breakers Club of Bishop Auckland whose sole aim is to raise money to buy equipment for the Children's Ward and Intensive Care Unit of the Bishop Auckland General Hospital. The club does this mainly by staging charity shows, discos etc. Also, donations of toys, gifts and so on are always welcome and do give the youngsters much pleasure.

From what Andy (*Andy Pandy*) of Hartlepool has put on his card, I think he's got me confused with Jimmy Saville (well, Jim and I belong to the same club, but that's another story). Andy's asked me to Fix It for him to get a mention here. If you send Andy a good QSL and ask him nicely, he may just send you a copy of the history of CBI! (I'll do my Michael Caine imper-



QSL CLUB ADDRESSES:

County Colour Card Col.
Currie Card Col. Club

Headache Control
Rocky Mountain Breakers

Somerset Knights Int'
Ultrasonic Breakers Club

Uniform Kilo DX Club

Viking Radio DX QSL Club

Dragonrider One,

PO Box 106, Canterbury, Kent.
29 Morland Ave, Columbia,
Washington, Tyne & Wear.

PO Box 105, Northampton,
PO Box 10, Dingwall, Ross-shire,
Scotland.

PO Box 26, Yeovil, Somerset
14 Waddington St, Bishop Auck-
land, Co Durham.
PO Box 1, Burnham On Sea,
Somerset.

PO Box 31, Lerwick, Shetland
Isles, Scotland.
C/O DR Club, 3 Tarn Villas, Cow-
pasture Road,
Ilkley, West Yorkshire or via the
magazine.

When writing to any club or QSL service, always help by including return postage.



sonation 'ere). Did you know, that it was the ancient Romans who first brought CB to the UK, or as they called it, *Bandus Citizenicus!*

From my old mate John (*Jumbo Jet*) of Tyne & Wear I've just found one of his new cards which is in the Currie Collectors Series, of which John has over a dozen! (Quite what some have to do with your handle John, I'm not sure, but they sure are neat).

Over the last couple of months, anyone writing to me who is a member of the Dragonrider Club, or anyone who joined the Club in this period, will have received a "Notice of Sale"! What this means is that if any member of the Dragonrider Club reading this would like some DR Christmas QSLs or a DR stamp, these are now available at £1 off the normal price! The stamp is on offer at £2, as are the cards at £2 per 100, or 300 for £5! This offer is only open until the end of September or until stocks run out and within the UK

only. These prices *do* include postage by the way. Anyway the reason for mentioning this offer now, if that if any club intends to do something for Christmas or the New Year, then *now* is the time to drop me a line with details. One club over the last couple of years has published a diary, but hasn't let me know about it or its price until November, far too late! So, if your club is doing something special, then please do get in touch as soon as possible. Final name for this month is Pete (*The Sprinter*) of Derby.

QSL SERVICE ADDRESSES:

Aztec (Printers)	2 Brook Cottages, Kingsombourne, Hampshire.
Charlie (Printers)	80 Audens Way, Midway, Burton-on-Trent, Staffs.
Currie (Printers)	89 Derwent St, Blackhill, Consett, Co Durham.
Ensign (Printers)	58b Market St, Ashby-de-la-Zouch, Leics.
Midas (Printers)	40 Marklew Close, Brownhills.



MEETINGS: (In date order)

28th June

Romeo Victor CB Radio Group's Annual Eyeball held at the Bargoed Leisure Centre, Bargoed, Wales. 50p admission for afternoon, £2 for evening.

28th & 29th June

Trail Blazers Int' Card Swap Meet at the Old Vic Hotel, Lichfield St, Wolverhampton. Sat: 9.30 — 4.30, Sun: 9.30 — 2.30.

29th June

Jim Bruce of Viking Radio at The Old Lighthouse, Dungeness Point, Romney Marsh, Kent, noon onwards.

29th June

Pudsey & District Breakers Club Eyeball & Gala at the Soldiers Field, Roundhay, Leeds, West Yorks from 1.30 onwards.

12th & 13th July

Dutch Trucking/Yankee Truckers/ & more Int' POMA Swap Meet held at the Royal Victoria Hotel, Sea Front, Hastings. Sat 9am — 1pm, Sun: 9am — 1pm. 50p per day.

6th September

Sierra Tango DX Club of PO Box 8, Rhyl, Clwyd, holding an Eyeball. No other details available at present.

4th October

Sunrises DX Group, all-day eyeball at "Home Farm", Bridgwater. Admission £2.50 (£1 children), details from Keith, PO Box 7, Bridgwater Somerset.

4th & 5th October

Atlantic Breakers/Tall Ships/ & more Swap Meet held in the Atlantic Social Club, Broadheath, Altringham, Cheshire. (No other details).

I think that there is just enough room to fit in a couple of requests from a couple of clubs. First of these is the Uniform Kilo DX Club of Burnham-on-Sea who wish it to be known that the Club is still going strong and growing steadily with membership still available at £1. For this you receive your Unit No, ID card, some club QSL cards and stickers, rules of the club and various invitations. Should you wish use of the Club PO Box, then this will cost you an extra £1 per year, *plus* a supply of SASEs. The other club is somewhat more expensive at £14 though you do get a little bit more. The club is the Somerset Knights International DX and QSL Group of Yeovil and for your money you receive your Unit Number, 10 club cards, membership scroll, eyeball badge, 60 square inches of car sticker, use of the PO Box (no mention of any charges due, so I assume that this is covered in the membership fee, and a club cloth badge. Now, the club calls it a "Blazer" badge, and it really has to be seen to be believed! It has a black background, with yellow/gold piping, and a silver steed and knight in the centre with the club's motto below this. The club also has an annual membership, details of which can be obtained from the club secretary.

Anyway, to finish off this month, just a reminder that if you would like to see your name here, drop me a line, or if you are organising a do, let me know, but do allow as much time as possible please. If you have a problem, or can help out with someone else's, write in and I'll see what can be done, but if you need a reply, please do not forget return postage.

One of the best ways of understanding your rig and its capabilities, within legal limits, is to take a journey through its various components and learn how they work. I don't propose to tell how to correct faults or tune up your CB; this is a job for a competent rig doctor. I cannot emphasise too strongly that you should always seek specialised assistance if anything goes badly wrong — a good technician will get you back on the air quickly. About 75 per cent of faults are the result of breakers attempting to deal with the problem, which helps to prove that a little knowledge is a dangerous thing.

Our journey starts with the power source, without which nothing can function. In a mobile context the power comes from a lead/acid battery, while at homebase a mains power pack runs the rig. A custom-built homebase rig simply has the power pack built into the same case, so the principle is similar.

In any case the rig is likely to work best when run on a 13.8 volt supply which can provide however much current is required. The rig is designed to work best on this voltage because it is the voltage of a car battery when being charged correctly — i.e. while you are trundling along the motorway. Assuming that your wiring and alternator are in good order, the rig will be correctly powered when mobile.

Mains Power Pack

When using the rig at homebase there is no immediately available source of the right power. A mains operated power pack designed for CB use is required. This will provide 13.8 volts at a sufficient current for any ordinary rig, and will be unaffected by having a transmitter operated near to it. This last point is important as some electronic equipment can malfunction in the presence of significant amounts of RF, which is the last thing you want a CB power supply to do.

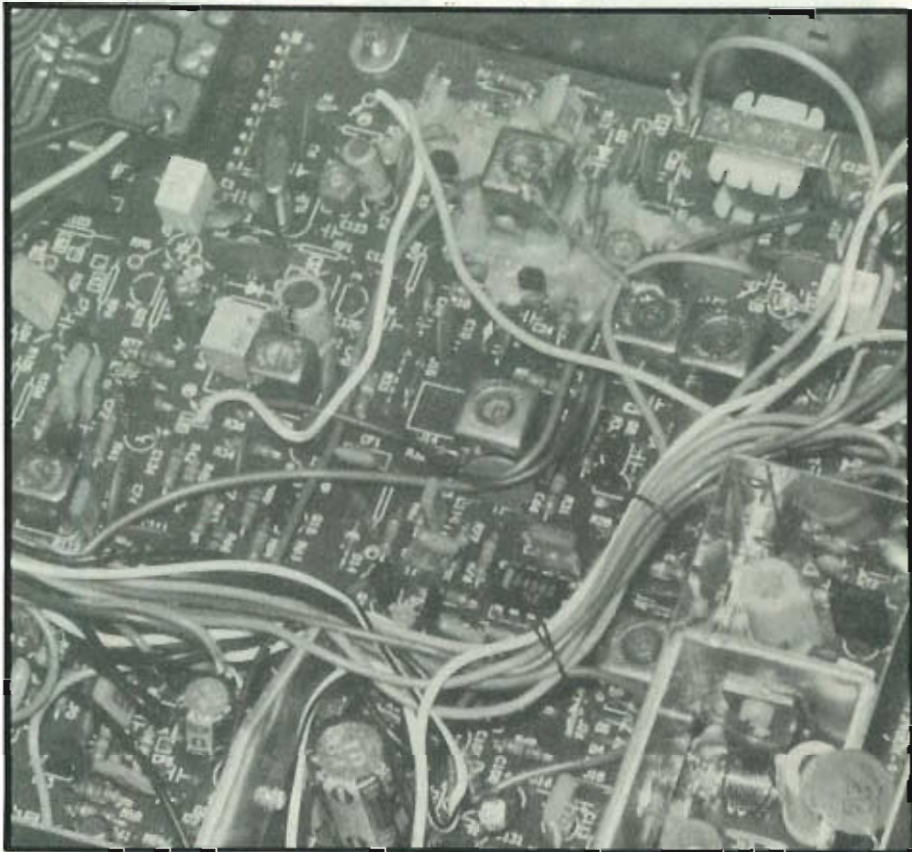
A typical power pack contains the following components: A transformer, a rectifier, a smoothing capacitor, and a voltage regulator circuit (normally an IC). In addition it may have a meter, fuses and various other sniggles and contrivances.

The job of the transformer is to reduce the mains voltage to about 15 volts RMS. This is converted to DC by the rectifier, and used to charge the smoothing capacitor. This charges almost to the peaks of the rectified waveform rather than to its RMS value, so the voltage on this capacitor may rise as high as 20 volts. In between peaks of the rectified waveform, the capacitor supplies the current required by the rig, somewhat like a small battery.

During this period, the voltage on the capacitor declines, and if everything is to work properly it must remain high enough for the voltage regulator to work properly, and provide 13.8 volts output. The regulator itself may require several volts more on its input

A JOURNEY TO THE CENTRE OF YOUR RIG

Often wondered what the innards of your rig actually do? Here, Electric Wizard and Colour Code explain



Resistors, chokes, ICs — all have an important job

than it provides on its output, the exact amount depending on the regulator type. The regulator may incorporate current limiting to prevent damage if the output terminals are short circuited.

An output fuse may also be fitted, to back up the current limiting, and prevent overheating. There may also be a fuse on the mains input to prevent a fire hazard in the event of a fault in the circuitry. *On no account should any fuses be changed for a larger value.* Apart from any resultant fire

risk, if a fuse blows and is replaced by a higher current one, the chances are that the next blowup will be more expensive. The occasional pieces of silver paper or bent nails I have seen in blown up power supplies demonstrate the exact wrong way to do things!

The subject of power supplies is surprisingly complicated, and was covered in greater detail in the DIY project by Electric Wizard in the May issue.

With the power now flowing, we

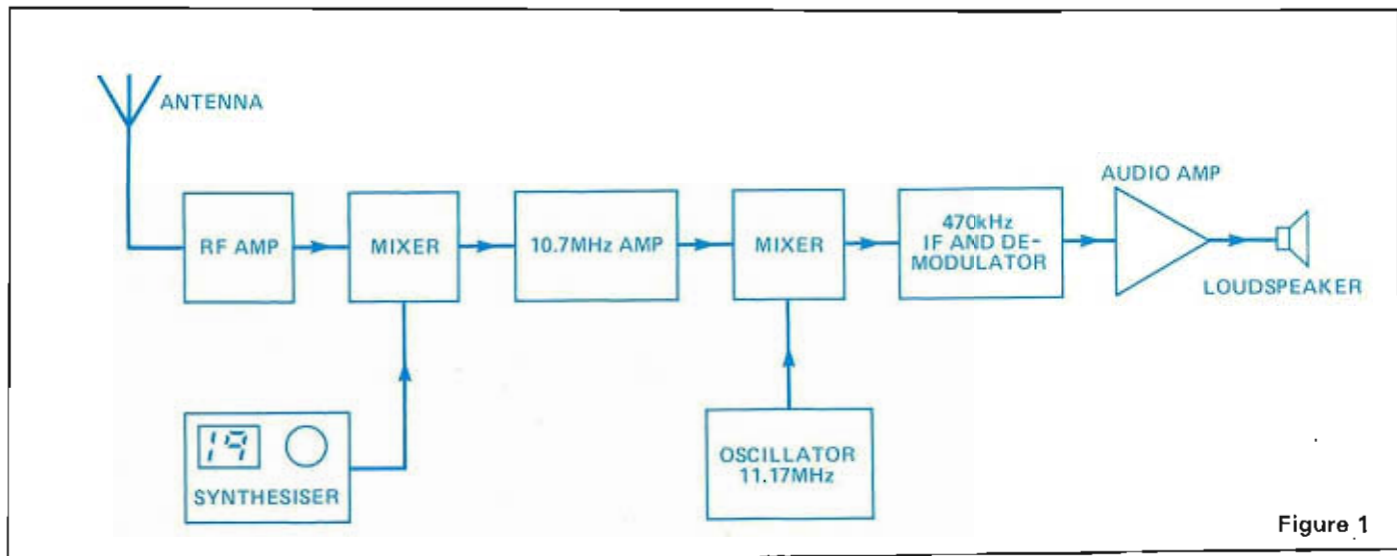


Figure 1

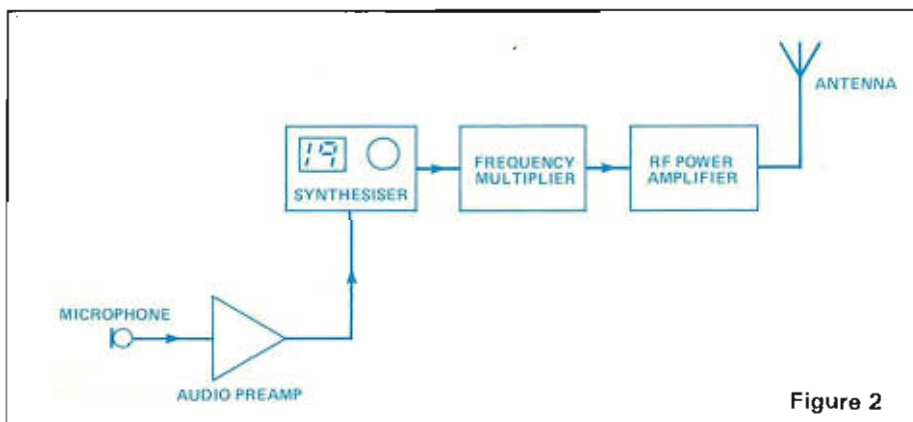


Figure 2

Fig 1: Simplified block diagram of receive section of the rig.
Fig 2: The transmit section.

will follow a received signal from the antenna through to the loudspeaker. Figure 1 shows a simplified block diagram of the receive circuitry of a CB rig.

First of all, the signal is fed to the RF amplifier, which is tuned to the

middle of the frequency range used for CB. It will accept and amplify all signals in the right frequency range, but will ignore signals on other bands, such as medium wave!

The signal is then mixed with the output from the PLL (phase locked

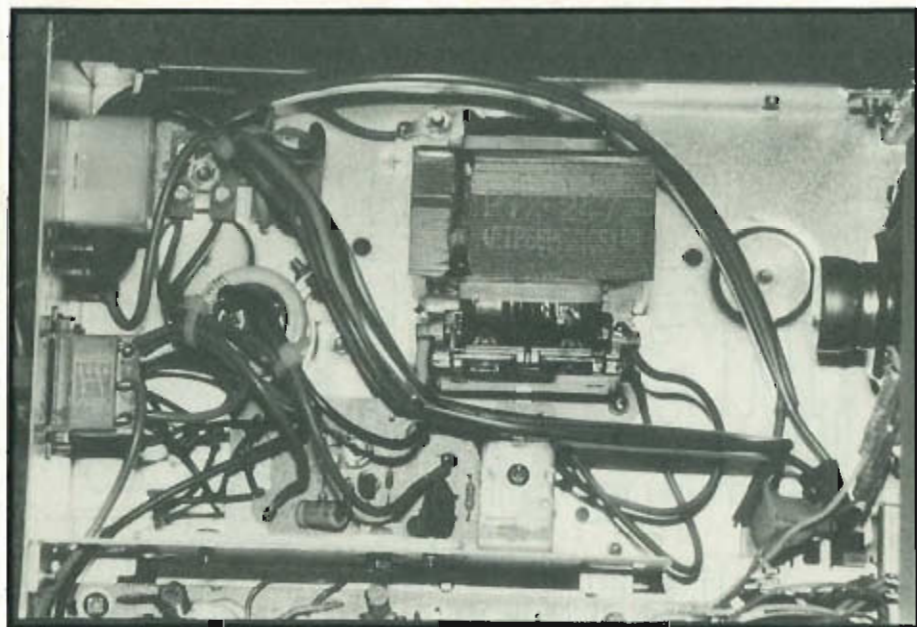
loop) frequency synthesizer, so that the channel selected is converted to 10.7MHz. The process of mixing is just like the beats you can hear between two almost similar musical notes. The 10.7MHz is the beat between the CB signal and the PLL output. Channels other than the one selected cause a slightly different frequency of beat, and are thus partially filtered out by the 10.7MHz filter.

The same type of process is applied in the sound mixer, when only exact 10.7MHz signals are converted to the 470kHz second IF (intermediate frequency) and demodulated to produce audio. You may wonder why anyone goes to the trouble of all this frequency changing. The answer is simple; it is much easier to build a receiver and demodulator for one fixed frequency than to make everything variable, so the technique used is to build a good 470kHz receiver, and then convert the actual frequency you want to hear to 470kHz. This system is known as the superheterodyne receiver.

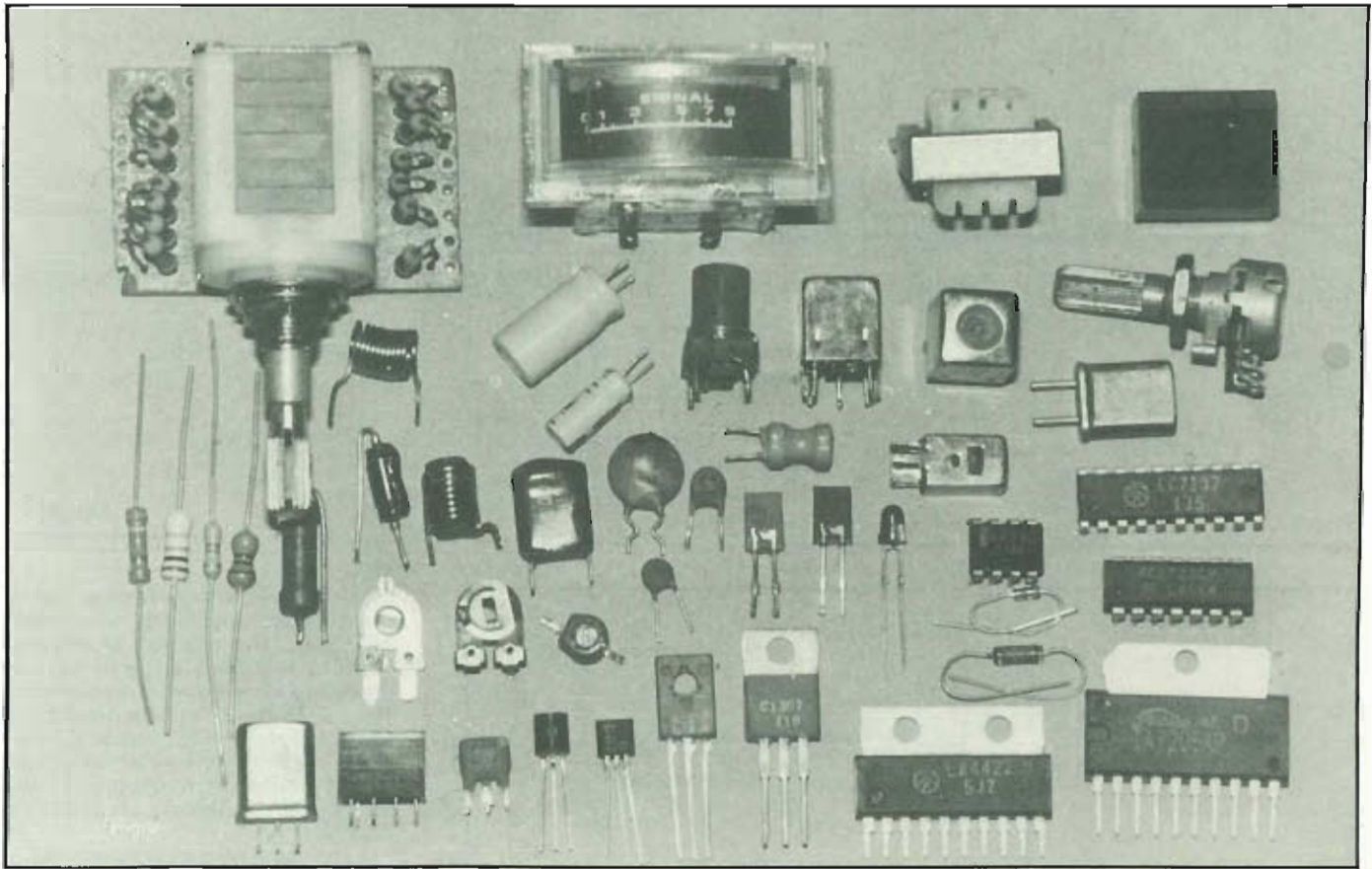
The reason for the first IF of 10.7MHz is less obvious. Just remember that the frequency changing which occurs is as a result of beat effect between two different frequencies. If you were to convert 27MHz directly to 470kHz, then you might use a synthesizer output of 27.47MHz. However, a frequency of 27.94MHz would also produce a beat frequency of 470kHz, and this frequency (often referred to as the image frequency) would not be rejected by the RF amplifier. The effect would be a truly weird kind of bleed-over — from distant channels. With a first IF of 10.7MHz the image frequency would be 21.4MHz from the wanted signal, and would thus be ignored by the RF amplifier.

Rabbit, Rabbit

Transmission is easier than reception, which may seem self evident when you listen on the CB in some areas. The way the rig works on transmit is shown in Figure 2. This is almost self-explanatory. The microphone generates a very small electrical signal in response to sound, and this is amplified by the audio preamp and then used to



Capacitors, resistors and the rest — inside the power pack.



Components in the Rig

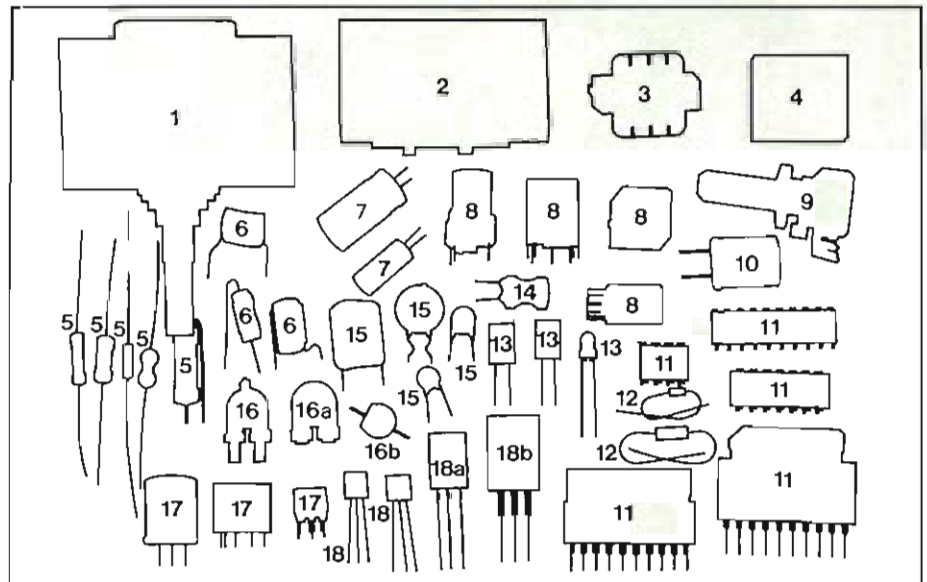
1. Channel Selector Unit: This selects the channels and controls the Phase Locked Loop.
2. Signal meter: Shows the receive and transmit signal strength.
3. Combined filter and choke: Helps to stop interference from car electrics reaching rig.
4. Channel indicator: Shows channels selected.
5. Resistors: Five different value resistors. These supply and drop voltage to different components in the rig.
6. All Chokes: For tuning or to pass RF but not DC.
7. Electrolytic capacitors: For audio signal coupling or power de-coupling.
8. Coils and IF Transformers: Tuning and coupling.
9. Potentiometer: Used for volume control, squelch etc (three or four of these are used in a rig).
10. Crystal: Oscillates at a certain frequency, helps to keep rig on the correct frequency.
11. Five integrated circuits (ICs): PLL, voltage regulator and audio output amplifiers.

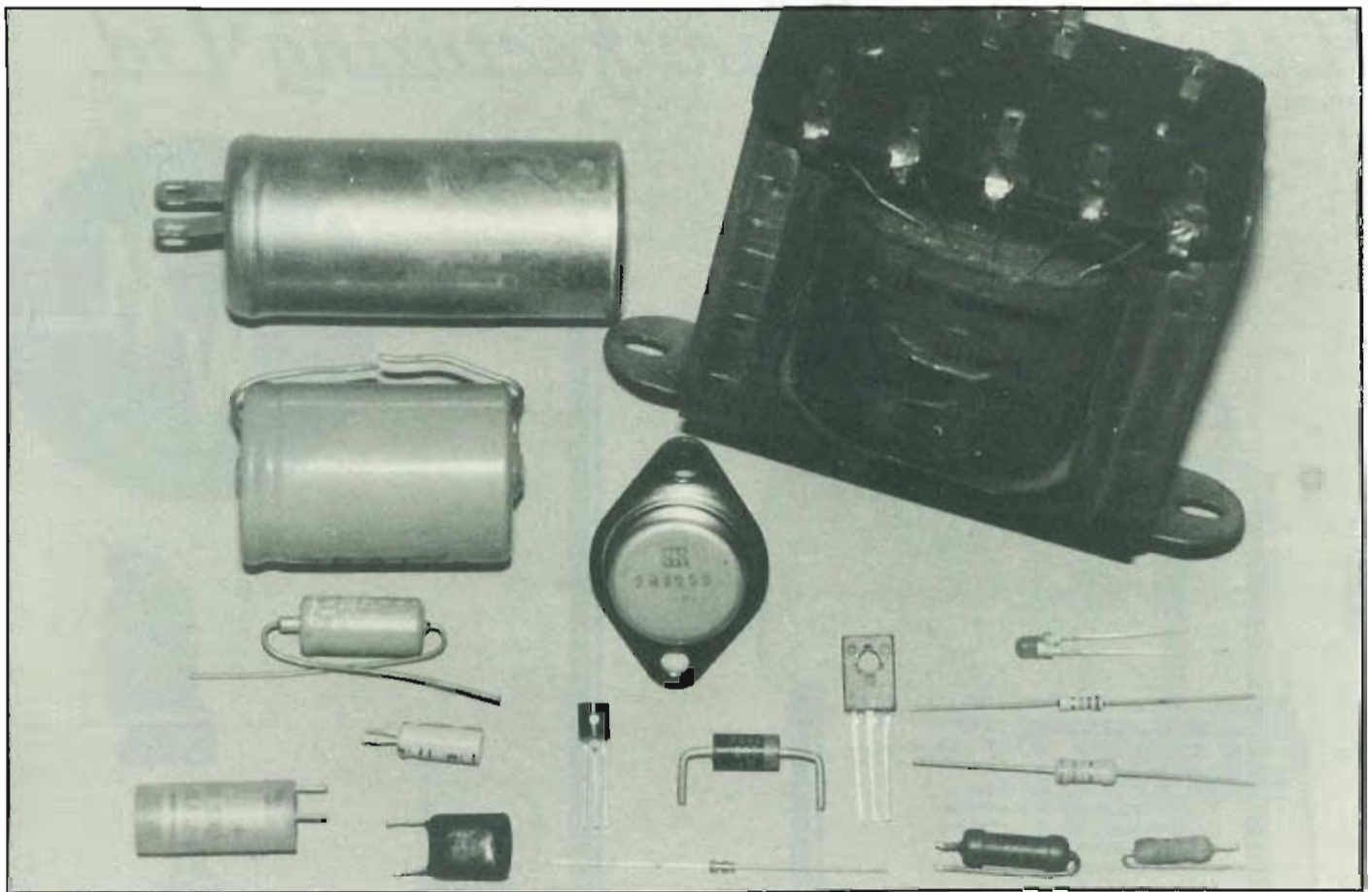
12. Two types of diodes. Passes current in one direction only.
13. Three light-emitting diodes (LEDs): Crystals which emit light, enabling you to see whether you are on transmit or receive mode. Sometimes signal strength can be seen in a visual display.
14. This is a type of filter; this particular one is used to filter lower frequencies.
15. Capacitors: Pass AC signal and block DC.
16. Pre-set potentiometers and (16b) pre-set capacitor. These are very important and mustn't be fiddled with. Their job is to set up the right frequency, modulation and signal strength. They should not be adjusted without the correct equipment for testing.
17. Filters: For filtering out various frequencies as required.
18. Types of transistors: For amplification and switching
18a is a larger version mainly used for driving the output stage.
18b is the transmit output transistor.

vary the frequency of the synthesiser by a small amount, giving *Frequency Modulation*. If the variation of frequency caused by the sound is too large, it may overlap adjacent channels causing bleedover and a distorted sound at the receiving end. If the variation is too small, there will not be enough modulation for a clear copy. Correct setting of the modulation is very important.

The synthesiser itself does not give an output on 27MHz, but on a submultiple thereof. The exact functioning of the phase locked loop frequency synthesiser is too complicated to describe here — for a full description see the article by Lou Franklin.

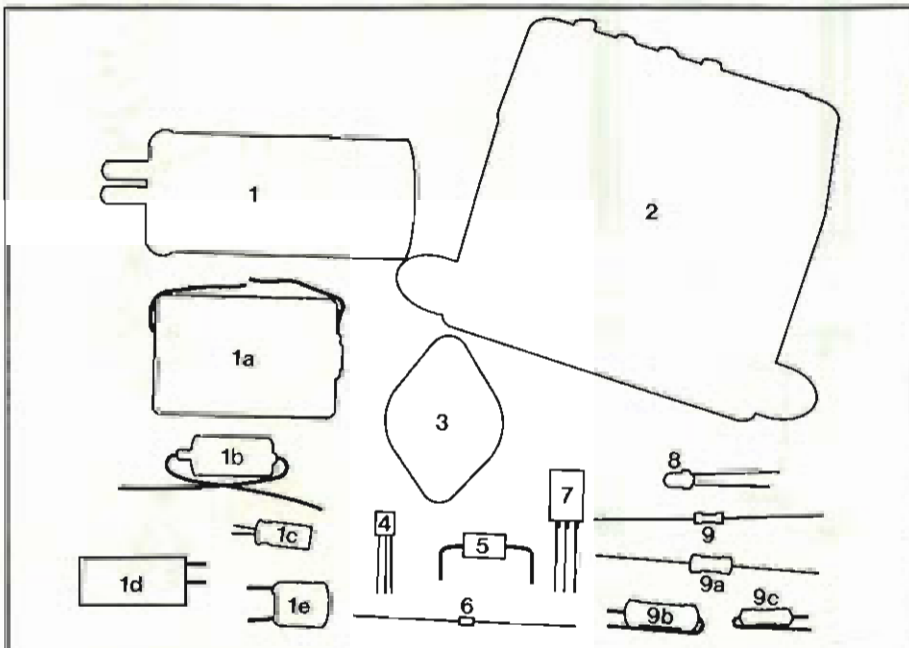
The multiplier stage multiplies the frequency up to the correct band, and the RF amplifier then increases the power to 4W to feed to the antenna. The waves transmitted from the antenna radiate like the ripples which





Components in the power pack

- 1, 1a, 1b, 1c, 1d. Electrolytic capacitors: Their job is to smooth out ripples in the voltage. If this wasn't done, it would cause excessive hum.
- 1e. Electrolytic capacitor. Same family and same idea as above but not used for smoothing, just coupling and de-coupling in the rig. This little fellow is reversible but the others are not. If you fit those the wrong way round, they'll probably go off with a bang.
2. Mains transformer: Converts the mains voltage from 240AC to 24AC.
3. Power output transistor. Supplies the power to the rig from the power pack.
4. Transistor: Forms part of the control circuit.
5. Rectifier: Converts alternating current to direct current.
- 6 and 7 do the same job, 6 is a Zener diode and 7 is a voltage regulator.
8. Light-emitting diode (LED): If a power pack is fitted with one of these in circuit, it simply shows the power is on.
- 9-9c. Resistors: They supply and drop the voltage to various parts of the rig.



occur when a pebble is dropped in a pond. The power of the signal decreases with the *square* of the distance from the transmitter; doubling the range quarters the signal.

Controls

One function not so far mentioned is the squelch control. This is simply an audio switch controlled by the strength of the received signal. Its purpose is to switch off the annoying hiss which would otherwise drive you round the twist when the channel is clear.

The most crucial control is the channel selector. This is a 40-position switch with a number of different layers, each of which is mechanically connected to the others but is electrically separate. One or two of the layers, or wafers, control the frequency synthesizer. The rest switch the segments of the seven segment LED display which reads out the channel number.

Bits and Pieces

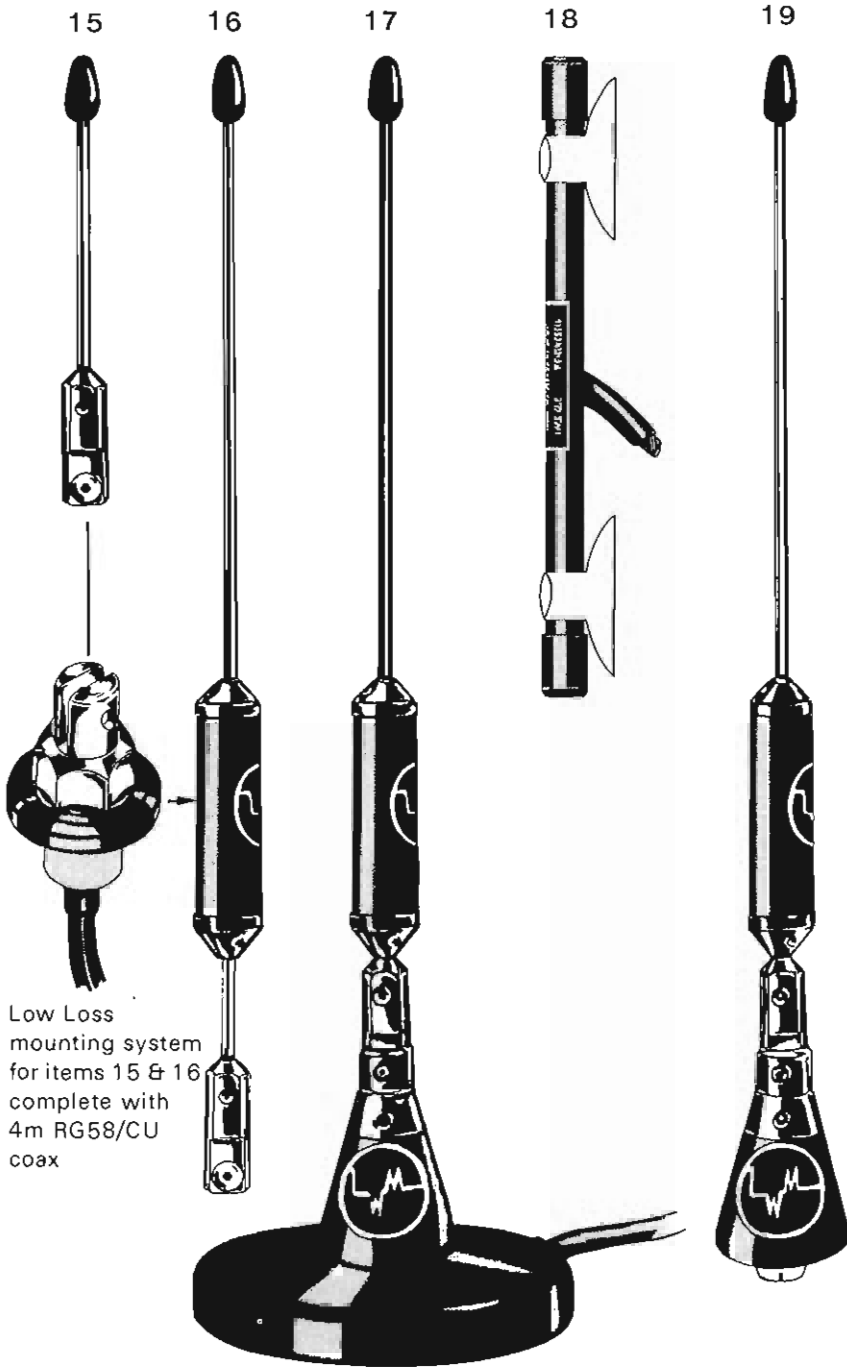
There are many parts in the rig, all of which serve an important purpose (otherwise the manufacturer would not spend good money putting them there). The knowledge of what they are will add to your pleasure and make you a more responsible breaker. Recognising that the rig is not a simple toy, a sensible breaker will always try to get the best out of it. An efficient rig means a happy, contented breaker and surely that's the name of the game.

Les Wallen Manufacturing Ltd

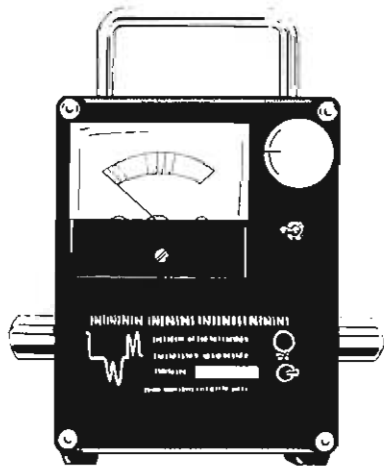
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17. $\frac{1}{2}$ / $\frac{1}{4}$ wave magnetic mounted 934 mobile antenna including mount
18. Stick on antenna (window)
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Some years ago, we ran a series of articles giving details of how to fit crystal filters to a variety of popular rigs in order to improve their immunity to bleedover. In the following months a number of suppliers came forward with suitable filters for these conversions, but nearly all were slightly different to the original filters we wrote about, and required slightly different modifications to achieve optimum results.

At long last a supplier has come forward offering suitable filters for a wide range of rigs. Furthermore, he offers data sheets covering the modification of most of the popular rigs available in this country.

The sample kit supplied by Solid State Electronics (UK) Ltd, of Southampton, for this review is for the Uniden chassis as used in the Uniace 100, 200 and 300 models. This chassis is also used in the Audioline 340, 341 and 345 rigs, and also in the Realistic 2000 and 2001 rigs. This is a comprehensive kit which includes new matching transformers, a measure of the thoroughness of approach adopted by S.S.E. Despite this, the modification remains simple to carry out, and provided care is taken, should be within the capabilities of anyone able to solder neatly.

Before tackling the modification kit proper, it is probably worth looking at the reasons for such a modification, and what benefits should be achieved by it.

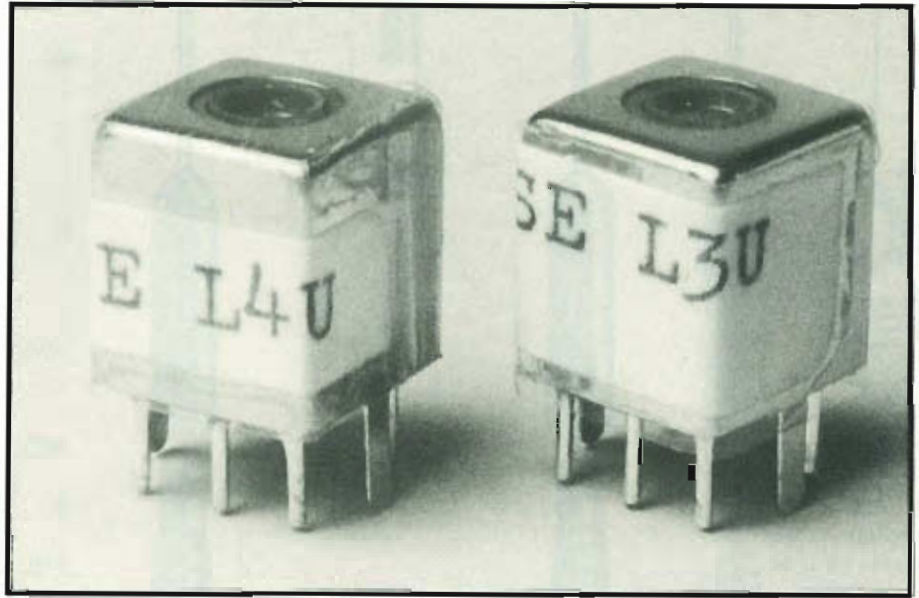
Anyone living in an urban area with a high proportion of CB users will be aware of the problems of bleedover. The symptoms are easily recognised. You are copying another station a few miles away who is giving you a signal between S5 and S9, when all of a sudden the 'S' meter drops to zero and your rig goes silent. A few seconds later, the signal re-appears as if nothing had happened and the other station is still rabbiting on, oblivious to the fact that you have missed half his 'over'! At this point, a quick flip round the channels will usually reveal another nearby station producing a signal strong enough for your 'S' meter to hit its end stop with an audible click everytime he transmits! Further checking will reveal that your receiver's sudden deafness on nearby channels coincides with your neighbouring station keying up.

The phenomenon is fairly well known. Virtually every rig available on the UK market uses a classic double superhet circuit. The incoming signal is mixed with a locally-generated signal to produce a first IF frequency of 10.695 MHz. This IF frequency is amplified before being mixed with a second locally-produced signal to produce a second IF of 455 KHz. This is the stage at which most amplification is usually applied prior to demodulation back to a plain audio signal. It is at the second mixer that problems usually arrive.

Any mixer when presented with a serious overload will cease to operate properly. It is therefore important that unwanted signals should be eliminated as far as possible before mixing occurs. This is the function of the RF and IF filters. To simplify the receiver design,

NEW CRYSTAL FILTER KIT

Solid State Electronics are now producing the answer to many a breaker's prayer — filters to help alleviate bleedover problems. Chris Peterson has a go



Replacement IF matching transformers

the front end RF filters are designed to have a bandwidth sufficiently wide to cover the whole 40 channels without returning. This means that all signals occurring within the CB band will be simultaneously presented to the first mixer. However only the channel selected will produce the proper 10.695 MHz output from the mixer. Usually overload is not a problem at the first mixer. The signal levels arriving from the antenna are typically in the range of tens of microvolts to a few millivolts. This is insufficient to cause overload of the first mixer. (If your next door neighbour is running a burner into a half-wave antenna, then that's another matter. Nobody can help you, and you will either have to come to an 'amicable' arrangement with him, or move house!)

After the first mixer, the 10.695 MHz IF is filtered and amplified before being passed to the second mixer. The total amplification that the signal has undergone by the time it reaches the second mixer is likely to be at least 30dB (1000 times). In other words signal levels that were millivolts at the aerial socket will now be *volts*. That certainly *is* enough to cause problems! Unfortunately the filters used in nearly all rigs for the first IF stage were

designed for FM broadcast radio and have a bandwidth of typically 180KHz. This means that as well as the wanted channel, another 18 will arrive unfiltered at the second mixer. By replacing this filter with a narrow band two-pole crystal filter, the unwanted signals can be attenuated by typically 20dB (100 times). In other words your rig will be approximately 100 times less sensitive to unwanted signals causing bleedover!

Unfortunately, it is not just a question of removing one filter and soldering in another. The ceramic filters used as standard have an input and output impedance of 330 ohms typically. Crystal filters have input and output impedances many times higher than this. Since the performance of the filter can be seriously adversely affected by incorrect terminating impedances, it follows that the best results will only be achieved if the rig is modified to provide the correct impedances to the new filters.

To overcome this problem, S.S.E. have adopted a double-pronged attack. Firstly they have had their crystal filters specially cut to reduce the input and output impedances. These are now around 820 ohms instead of the more usual 3000 ohms! Also, the kits they provide contain the necessary com-

ponents and information to modify the rigs to suit this new value. In the case of the Uniace kit this means new (and specially wound!) input and output matching transformers.

The instructions provided with the kit have enlarged diagrams showing clearly where the new components have to be fitted. Obviously this entails removing some of the existing components, and it is important that the right tools are used to achieve this. The soldering iron should ideally be a miniature 15 watt item preferably with a $\frac{1}{8}$ " bit. Certainly you should not use anything bigger than 25 watts, unless it is a professional thermostatically controlled unit. Some form of desoldering tool is also required. The best ones are like a miniature spring loaded bicycle pump in reverse! These suck the solder away neatly and cleanly. A cheaper alternative is a length of copper desoldering braid. However, this requires some skill in use to achieve neat results.

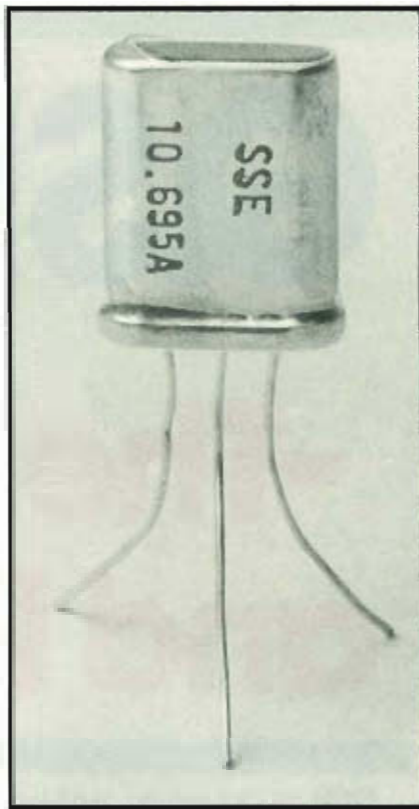
Once the two coils and original filter have been removed, the new components can be soldered in position. The crystal filter should be pushed down tight up against the circuit board, and the excess leads clipped off underneath after soldering in position. If you haven't got proper lead clippers, a pair of nail clippers will do just as well!

Once the components have been soldered in place it is a good idea to remove any resin from the joints. This is easily achieved by scrubbing the board with an old toothbrush dipped in cellulose thinners. Once the joints have been cleaned up, examine them carefully under a magnifying glass to make sure there are no minute splashes of solder bridging adjacent lands. Finally, blow hard over the bottom of the board and give it a good shake to make sure that there are no stray blobs of solder or component lead clippings laying loose in the board.

The new coils will have to be tuned before the rig is put back together. In an ideal world this would be done with a sweep generator and display, but this sort of equipment is unlikely to be available outside a well equipped repair shop! A simple alternative is to use another rig as a signal source.

Fit dummy loads to the antenna sockets of both rigs and connect them to separate power supplies. Set both rigs to channel 20. Turn the squelch right down on the rig with the crystal filter, and the RF gain (where applicable) right up. Key the borrowed transmitter to transmit, and back it away from the rig you want to tune until this hiss level coming from the speaker rises. At this point it should be possible to tune the two new transformers to minimise the hiss level. It may be necessary to back the transmitting rig away from the receiving one as tuning progresses to increase the hiss level again. For each coil there should be a single sharply defined point of minimum hiss. This should coincide, in an ideal world, with maximum signal strength reading on the meter but, if there is a slight discrepancy between the two, go for minimum hiss!

It should be noted that the ferrite cores used in RF coils are *extremely*



SSE's 10.695A crystal filter

brittle. Under no circumstances should you attempt to tune them using a screwdriver or any other metallic object. They should only be adjusted with the correct size nylon trimmer. These trimmers, along with the other tools mentioned above are available from most good component suppliers. Tandy stores keep a good selection of suitable tools, though they tend to be a bit more expensive than the average amateur radio supply shop!

Our trial kit was fitted into a brand new Uniace 100, also supplied by S.S.E. It was tuned using the "two-rig" method described above, as this probably represents the method that would be adopted by most users. The modification tuned up quickly and simply, and there was no detectable loss of sensitivity after the retuning was complete.

The Uniden chassis is one of the better performers in terms of bleedover immunity. Nonetheless, there was a marked improvement in this respect once the modification had been carried out. Previous experience indicates that the improvement is even more dramatic in rigs that have particularly poor bleedover performance. This is particularly true of rigs using the 3357 IC as the second mixer and IF amp.

At a first glance, it seems that there is such an overwhelming case for fitting crystal filters, that one wonders why the manufacturers don't fit them as standard. Are there any drawbacks? Well, from the manufacturers' point of view, there is the additional cost. Frankly, this is minimal compared with the improvement in performance achieved. This excuse really doesn't bear close scrutiny. The only other perceptible change in receiver performance is the increased selectivity. Provided everyone is operating within

the specifications, this is actually an advantage. However, a number of people have discovered that by increasing the deviation of their transmitter, they can make themselves sound louder to other stations. The fact that this also tends to make them splatter into adjacent channels doesn't seem to worry them. However, when a crystal filter is fitted to the receiver, stations that are over-deviating tend to sound distorted. Indeed they *are* distorted, because the crystal filter is clipping the peaks off their modulation and replacing it with hiss, or white noise. This tends to make them sound very harsh and unpleasant. If you also fit a noise squelch kit to your rig, it can also be found that an over-deviating transmission won't open the squelch, no matter how much power he is putting out. This can be a problem if one of your main contacts is habitually over-deviating. My own Cybernet Beta 3000 which is both crystal filtered and noise squelched simply will not respond at all to an over-deviating-signal. Personally, this suits me fine as I have no wish to talk to anyone so anti-social anyway, but your opinion may differ from mine!

The crystal filter supplied by S.S.E. (SSE10.695A) has a 3dB bandwidth of ± 3.75 KHz, and a stop band of 20dB at ± 18 KHz. S.S.E. also offer as an option an even more selective filter (SSE10.695B) which has a 3dB bandwidth of 3.5KHz, and a stop band of 18dB at ± 12 KHz. My feelings are that this is a little bit too sharp for a standard FM system, though it may suit some specialist application where the deviation is reduced from normal.

The modification described here is covered in an S.S.E. Technical Information sheet, no.3U.

Another Technical Information sheet no.24 covers the Amstrad 900, 901, Mustang 1000, 2000 and 3000 and others using the same chassis. It also covers the Communicators 440, Planet 2000, Maxcoms, Murphy home base, Binatone Route 66, York 867, Nato 2000, TS777-797 and Grandstand Bluebirds, to name but a few! S.S.E. can also supply CFW455HT 2nd IF filters to replace the smaller 4-pole filters used in the basic models of some ranges.

Please bear in mind when carrying out any modifications to your rig that you will certainly invalidate any guarantee on your rig. Do not tackle these modifications yourself unless you are confident in your ability to solder neatly and cleanly. If in doubt, seek help from a *competent* rig-doctor.

Having said that, S.S.E. are to be congratulated on having produced a comprehensive and well documented modification kit. For a modest outlay you can transform the performance of your rig in respect of bleedover performance with minimal effort. I have no hesitation in thoroughly recommending this kit to anyone suffering bleedover problems.

The S.S.E. crystal filter kit is available from S.S.E., 41, Twyford Avenue, Shirley, Southampton, SO1 5NZ. The price is £10.00 inc VAT and postage.

We would like to thank S.S.E. for trusting us with a brand new Uniace 100 with which to fit the sample kit!

When He Who Must Be Obeyed (our Illustrious Editor) dropped his latest bombshell on me, his instructions included "give a bit of history... but don't duplicate what you said some time ago". So forgive me if I skip over the early bits and I'll refer you to the April 1985 issue which should still be available as a back issue if you haven't got it.

So, here you are, perhaps you've been reading the regular QSL column in this very magazine for a few months and you fancy taking up this rather interesting sounding hobby, or perhaps you have just taken the plunge and wonder just what you've done!

Well, many years ago, QSL cards were simply a written confirmation of a vocal contact over the airwaves by Radio Amateurs and DXers, that's a "QSO" by the way. Indeed, many of today's pure DXers and DX clubs still use this type of card for contacts between members and for competitions. Then some CBers in America (where else!) took a fancy to the idea and adopted it for themselves.

From there, the idea sort of snowballed, so much so that now there are many types of cards about. These range from the "old" DX reports, through black & white or hand-drawn designs to hot foil cards, from multi-coloured designs to Full Colour Collector Series cards (FCCs). Obviously, the more basic your design or card, then the cheaper it is to start, but I'll come back to this point a little further on. I'd just like to stress here, before the DXers, Hams and Purists rise up in arms, in the main I intend to talk about the QSL card collector who may not even have a CB radio, rather than the DXer or Ham with a radio costing hundreds of pounds, having sat exams, studied and sweated for his or her equipment and then turns round and finds me waffling on about QSLs and disagreeing with everything I've said.

Okay, so you've decided to take up QSL card collecting and you haven't the faintest idea of how to start; well hopefully by the time you finish reading this, you'll be well on your way. As you are reading this magazine, I'll assume you already have a CB handle, but if

QSLing

-The Perils and Pitfalls

Still a growing hobby, QSLing can cost you more money than you need to spend. Listen to David Shepherdson

not, get thinking about one that you'll feel happy with. Sources for your own handle can be your other hobbies, your work, your favourite TV program, even your favourite book! A few examples may be of help here, so hobbies first: Camera Blue, Gardener Fred, Bingo Billy, Home Brew; while from work could come ones like Butcherman, Sky Jockey (a pilot), Drayman (who works for a northern brewery), Tutor and so on.

These are the handles, call signs are quite different. Often they are issued by a club when you join them, for example Alpha Charlie 555, Yankee Romeo 32 etc. Also, call signs are used more by DXers and Hams. In the case of the Ham, the call sign is a registered number eg G1.KPW which shows the country of the user and

suchlike.

Now you've chosen your handle, can you think of a design to go with it? Of course you can just have a plain card saying QSL, and showing your handle, name and address, but unless it's really special, it isn't *too* collectable is it? What you can do here of course is get in touch with a printer and ask him (or her) to do a design for you, or maybe you have a talented friend who could draw you one up or perhaps you are good enough to do it yourself (I know I'm not!).

One thing you *do not* do is cut a picture out of a magazine or some such, glue it onto something and try to "paste" in your own details or even worse, take someone else's card, or a club's card and photocopy the result! For one thing, such an effort often ends up a right mess, and it's also piracy of someone else's designs or copyright.

Some people may say I'm biased against photocopy cards, and in some ways I am. Where the cards, or as some have been in the past, mere slips of paper, have been done on a "wet copier", or on a dirty screen, or where the result can only be described as a mess, then it won't be considered a collectable QSL by many a dedicated QSLer and will, in the end, only end damaging the UK's QSL reputation so yes, I am against them. Where the photocopy is a rip-off of a club's or somebody else's card then it's piracy and it is not right. Some one has paid good money for their design and card, and will take great offence if they see what someone else has done to their card. Also, if the copyright of the design is held by a printer, then it is



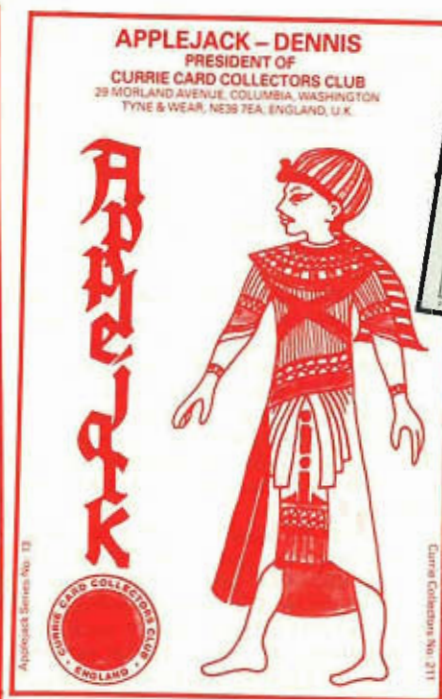
possible that the copyright will be defended in a court case! However, where the photocopy is original, clean and collectable, then there is nothing wrong with them, and I am more than happy to see them circulating.

Where do you get your cards done comes next. In the case of your own design which you intend to get done at a local photocopy shop or printer, then look in your Yellow Pages, and ask around for the best price. But without sacrificing the quality if possible, remember that you want to be able to swap your cards with other QSLers and with a good card of *any* type, you will do so! For anyone who wants to get a printed card, there are many specialist firms around, some advertise in the small ads at the back of this magazine, while others get a mention from time to time in the regular QSL pages so have a look there. Most supply a free sample pack if you write and ask for one, but don't forget to enclose a SASE (Self Addressed Envelope) for their reply. In the QSL pages there are usually a few different cards shown each month and these can give an idea of the types of cards, designs and types themselves.

Obviously for prices you'll have to contact the printers direct. One exception to the free sample pack from a printer is Raymac Design who charge £2 for this, *but* you do get a £4 credit towards your order. You may be wondering what kind of cards there are available now and what sort is going to be best for you. Well, for this depends on how much you want to spend, how much artwork you want, even what sort of artwork is required, how much or how many colours you want and of course; which style of card you do go for is of course a highly personal choice.

Please bear in mind now that I've dealt with photocopy cards as you can really only get shades of black and grey (usually) on normally white card, though various card colours are available depending on the area and who you contact. I'm talking here about the people who want to go for a printed or other type of card and I'm *not* trying to cause offence. I started off with a photocopy type before I decided on a printed card. One type of card is the "hot-foil" card; these are quite expensive as against some others, but the quality of the big three specialists in this field are well worth it. The "big three" as I called them are Charlie, Ensign and Midas, they are all different firms in different parts of the country but they all offer the hot-foil cards.

These cards can range from straightforward gold block designs to multi-coloured stylistic ones. Because of the methods of printing the prices start at around £18 per 100, *But* once the "block" has been made, this price does drop quite a bit. The Sierra Bravo card shown here is an example of a hot-foil type and shows how much detail can be put onto one of these. Moving on slightly to Raymac Display who offer a collectors type of plastic card at (approx) £20 for the first 100. This price includes design costs and in my opinion, if you were to decide on a Raymac card, I'd take them up on this

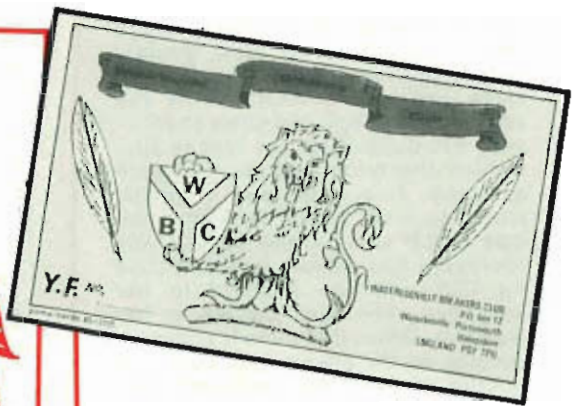


offer of their artist doing the work! The price is for one colour ink, usually black, but several colours are available. These cards are more for collecting than for QSLing as such, but they are superb whatever use you wish for them. You can see the quality of the Chevalier card shown here, which has two inks, black and red. For a sample pack, which includes samples of QSL cards, eyeball cards, stickers and all the other Raymac products, send £2 with your return address and in return with your samples, you get a £4 credit note against any future order.

Currie

Another source of printed cards is the Currie series. At one time you could only get these in outline drawings, with standards reports shown. Nowadays however, there are more different cards from this firm than I could possibly fit in here, so for details and samples, drop Des Currie a line and ask him for some samples, but include a sensible sized and stamped SASE for the reply. The range available now includes coloured cards, multi-coloured cards, matt or gloss card, fine art series, a collectors series for personal card holders, two or three colours of ink, and even now a full colour series. In fact, with these there is even a club catering solely for personal card holders!

At the other end of the spectrum, with regard to the FCCs, there are the (usually) European series of "Collector's Cards". The main one in the UK, if only because there is a very active UK Rep, is POMA of Belgium, though others include BBM, Sundown of the States and Lil' Queen, also of America. These cards start at about £53 per 1,000 and are normally part of a numbered sequence which are highly valued both here and on the Continent, but you can order un-numbered cards, the same quality and such-like, hut out-



side the "Collector Series". These cards are in general on a textured-finish card and the quality of the design depends greatly on the quality of the artwork supplied. There is also a UK Collectors Club for these cards, with which the UK Rep is connected.

There has been some unpleasantness over the last year or two with regard to some printers closing down while owing money or cards to QSLers, or just not supplying goods. Regular readers will know who I refer to, obviously there are more UK QSL card printers about than those I have mentioned, either here or within the regular slot. With regard to these, I can only suggest that you keep reading the regular QSL slot for information on printers, or drop a line to someone who has a card done by a particular firm. Anyway, enough about cards, now you've got them, how do you go about getting started?

Well, how *do* you QSL? Do you send a card out to one or two names seen in this magazine and sit back and wait for all the hundreds of cards to pour in? *No!* I think the easiest way to explain how to anyone new to QSLing, is to introduce a new QSLer to you, and let you watch as I lead her by the hand as she makes her first tentative steps to good QSLing.

Thus, enter Gillian who has chosen her handle as Teacher and her QSL design shows her standing before a blackboard with "QSL 100%", her name, handle and address featured. She decided on a medium-priced printed gloss card as her first, perhaps later on she may go for a FCC, but for now, she will manage with just one card, but in a couple of colours. She has received her cards and has looked through the CB Magazine for some names to QSL with. She gets one of her cards out for each name chosen, and writes something like "Hello, I'm a new QSLer, and I've seen your name in the CB Mag. . . a few extra details, such as "I hope you like my card" and so on and, of course, "Please QSL back." Then, she dates and signs them, gets an envelope with the correct postal address on and puts the correct card in each, *plus* four of five "floaters" for each.

Now, these floaters are, as a rule, the same cards, but she just signs and dates them, with "Please QSL for personalised card and pass on" on the back. Also, when she starts getting replies from other QSLers, she will be able to put in one or two extra floaters into her QSL packages. In addition,

she called at her local Tourist Board office and got a few local interest leaflets and included one or two of these into each envelope. Now she seals the envelope and posts them — well, not quite! First she makes sure that her *own* return address is on each envelope. This is in case of postal problems, such as too weak an envelope which splits in the post, or the addressee has moved, in which case the QSLs can be returned to her unopened. She also checks at her local Post Office that there is sufficient postage on the envelope to cover the amount of cards etc enclosed. This way, the Post Office will not levy a charge when they deliver it!

After a while, Teacher decides that she would like to join a few QSL clubs, if only for the extra cards and names and addresses that they supply, and so looks around for some. One source is, of course, this very magazine, but another is in the post she get back. When you join a QSL club, either a free membership one or one which charges a fee, the idea is the same. You fill in an application form, or when writing after seeing details of a club in the mag, just write them a short note giving the details required, usually your name, address and handle, along with any fee required plus, of course, the correct number of personal cards necessary.

So, she's picked a club to join, writes out the details and fills in the envelope as needed. Now, the one she's picked charges a fee so she checks if it accepts UK postal orders, cheques or just cash. If it accepts POs or cheques then she makes one out to the name on the form, but if it's cash only, then she has a little extra work needed before she posts it off. If the amount is, for example, £4, then she needs to send coins, which of course are heavy and may either break through the envelope or get lost in the post if they are put in loose, and you may be surprised just how many people do just that! So what you have to do is get the money together and tape it securely to either an extra card or some other strong, stiff packing.

If the fee is £5 or £10, then obviously a note can be used, but again, put it between some cards, and if you don't want to tape these together, use either some paper clips or rubber bands. Be safe, not sorry. With cash, it is always better to either send it recorded or in the case of a large amount or overseas, registered post. This costs a little extra, but it is far safer.

The club package she receives should contain, in addition to a unit number, certificate, club cards and stamp, (remember, this one charges) some exchange QSLs and forms for this club and some for other clubs which come recommended. The forms for the club should, if you feel happy with the club's package, (in other words, if you feel happy to recommend it to other QSLers) be added to your own QSL packages, just one at a time, then, when you run out, you could write to the club asking for a further supply, but please don't forget a SASE.

By now, Gillian has joined several QSL clubs, and has bought some club cards and a stamp or two from the non-

fee charging clubs. She uses the stamps on her envelopes and on her floaters as well. Gillian thinks of joining another club now and sends off the necessary items, and she always puts her own personal cards in when joining, *never* some from other clubs. After all, she doesn't want to insult anyone as some clubs can take offence if people join them with another club's cards; this seems to suggest that you could not be bothered to either use your own cards or maybe you don't even have any of your own! Club cards should be used *with* your own cards, *never* instead of them! Use them to pack out your QSL packs, after all, the person you are QSLing to may well be a member of that club, or maybe has been trying to join that club but has not had its address.

It must be said that it can take some time to get established in QSLing, but once you get there, then you can stay in it for years! Perhaps a few extra hints may be in order here, so for one thing, *always* put your return address on each of your cards, if you use club cards, or stock cards (which come from some printers) do make sure that your address is on each and readable! Not everyone of them will stay in the UK and if they are liked abroad, then you will get cards from all over the world so do make sure that your address is on each and every card!



If your handwriting is as poor as mine, then I suggest that you invest in some address labels. These cost as little as £3 per 1,000 and the firm I have great service from is Vine Lodge of Boston. They do white, gold, clear and now bright red labels all at prices that are quite affordable. I even have had a clear one done which I use on each envelope I send out showing my return address. Having said that, I always recommend that you make sure that your own return address is on each envelope, for the reasons already stated above.

Also, make sure that the envelope has the correct postage on; don't put a

12p stamp on a heavy package and expect any reply if the QSLer you sent it has to pay to receive it! If sending abroad, don't expect a quick reply if you used Surface Mail rates to send it, and if you get one from abroad via Air Mail, then it is only polite to return it the same way. For current costs of postage and postage weights, check your local Post Office for a Postage Rates Leaflet, they are free and very usefull! Also, many people appreciate it if you put on your cards where you got their name and address from; you know, use the format "Got your name (or card) via . . .".

As for pitfalls that can befall the new QSLer, well there have always been the dodgy clubs, and even printers. One of the best ways to tell if a club is good, is to see you have QSLed with a member of it, write and ask for their thoughts on it, or write to the club itself and ask for current membership details, but don't forget to enclose return postage for their reply. If you don't get a reply, then the club has probably closed, but all that you've lost will be the postage, and not your money.

As far as printers are concerned, well the most prolific get mentioned from time to time in the regular QSL pages, but if you like the look of a card either seen in the magazine or one you've received, drop a line to the owner of the card and ask him or her about the firm in question. You'll get an honest answer that way, and probably even one of the very cards you fancy!

As for the pleasures of QSLing, well there's the pleasure of seeing your collection grow and of waiting for the postman to call most days with some more QSLs. There's also the pleasure of getting one of a numbered series that you've been trying to get for months. I don't know if you'll class this next as a pleasure, depends on your point of view I guess. Some people have even met through QSLing and have hit it off so well, have taken the plunge and got married!

In addition to the actual postal side of QSLing, there's the Eyeballs which go up and down the country throughout most of the year. For example there's the Co Durham annual one, the various POMA-type meeting which, during the summer months, number almost one a month so there's probably one near you. Unless you live in Scotland that is, as I haven't actually heard of any that way this year. (Unless you know different that is). So go along to one, take a bundle of cards and get swopping. You never know, you may enjoy it as much as you enjoyed getting your first QSL reply!

Addresses of firms mentioned:

Vine Lodge Products (Stickers)
POMA (UK Rep)
Raymac Display (Cards)
Currie Cards
Charlie Cards
Ensign Cards
Midas Cards

Butterwick, Boston, Lincs, PE22 0JE.
PO Box 102, Canterbury, Kent, CT1 3YN.
PO Box 75, Hounslow, TW3 2HZ.
89 Derwent St, Blackhill, Consett, Co Durham,
DH8 8LT.
80 Audens Way, Midway, Burton On Trent.
Staff, DE11 0HQ.
58B Market Street, Ashby-de-la-Zouch.
40 Marklew Close Brownhills, WSB 2AP.



Filly plays a game of Treasure Hunt with local children

My goodness, the perils into which an unbridled lust for power can lead you! Remember I told you in a mad, power-crazed moment I had allowed a local CB club to elect me chairman? Well, let my experiences be a warning to you!

I was wandering around the house the day after the AGM, stunned by what I had allowed to happen, and more than half-hoping it was all a terrible nightmare from which I would soon awake. But no chance. The phone rang. Dared I answer it? Trembling, my hand reached for the receiver.

It was the newly-elected events organizer, horribly energetic and

LADY BREAKERS

enthusiastic, bubbling over with ideas which would embroil me in the kind of public-spirited but exhausting activity I had always managed to avoid. Not that I'm not community-minded. I can come up with fund-raising ideas just like anyone else. So long as everyone else runs around doing the work.

But this time, it looked as though not all my practised evasion techniques and innate cunning would let me out.

"A children's party," the events organizer enthused (he is a fond father of three). "Something to celebrate the end of a long, hard winter. Food and games, all the village kids invited. What do you say? We might find a few new members among the parents."

I was so appalled, I was unable to answer. Kids? I could make allowances for a fond and indulgent parent, but he wasn't living in the real world. I thought about the village kids, and shuddered.

Long gone are the days of dear little boys in sailor suits and frilly little girls clutching dolls. The modern child is more likely to be found sitting in front of a computer his or her parents can't understand exterminating aliens with gleeful abandon. Careering around on bikes and skateboards bringing terror to the neighbourhood. Reducing inexperienced teachers fresh from teacher training college to nervous, gibbering wrecks. A children's party! Heavens above!

Taking a deep breath, I tried to convey some of this to the events organizer. It was like trying to convince a dedicated kamikaze pilot to retrain as a social worker. We simply weren't on the same wavelength.

"Little devils, some of them," he agreed, indulgently. "My three keep me on my toes, I can tell you! But they're bored, stuck here miles from the town. They'd love a party. Keep them out of mischief, and it would please all the members with kids."

It would indeed, I thought cynically. Let someone else cope with the brats for an afternoon and get a few white hairs in the process. I decided to make sure I went down with something incapacitating, like pleuro-pneumonia or a broken neck, well before the start of the 'party'.

But a chairman doesn't escape as easily as that. I was dragged, willy-nilly, into the preparations, and when the dreaded day dawned, infuriatingly sunny, there I was in the marquee, waiting to welcome the 'guests'.

In they filed, looking clean and well-groomed, which lasted for all of

five minutes. They descended on the food like a swarm of locusts, while the helpers (mostly parents) looked on fondly. Then they looked around for something to do, the moment I had been dreading.

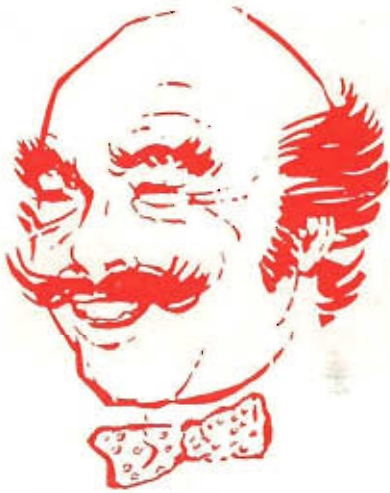
As it happened, I had a brainwave when it came to entertaining them. I had managed to persuade the poor, deluded events organizer that musical chairs and hide-and-seek were out of fashion, a task in which I was helped by a few of the more worldly parents. I convinced someone else that while it was quite likely they would enjoy murder in the dark, they might take the game in rather too realistic a spirit. I had no wish to be the victim.

Just to emphasize the fact that it was a CB club do, there were a couple of rigs and hand-helds there which were stripped down and put together again to show the kids how they worked. From the gleam in some of the kids' eyes, I wouldn't have been surprised to hear that some of them could have done it in half the time — the technical knowledge they seem to have these days is amazing. They asked for a demonstration of CB communication, so I took three of them out for a quick drive while they used my mobile to chat to their accomplices back in the marquee — no trace of mike fright, I noted sourly, thinking of my own days as a nervous beginner.

It seemed to amuse them. But the real brainwave was mine. Get them out on a good old-fashioned treasure hunt, I had suggested. If it can amuse the adult members of the club, I thought, it will amuse the kids — but it would have to be twice as ingenious to impress them. I had spent a week planning it, but it worked like a charm. They disappeared into the unsuspecting lanes clutching their first clues, and we were left to clear up the debris and heave sighs of relief that the marquee was still standing.

I wasn't very popular with certain sections of the local population, I have to say. It took me some days to soothe the householders who had found kids rummaging through their dustbins, scrambling about in their apple trees, poking about in their hedges and climbing lamp posts. Maybe my clues had been a little too ingenious. But all in all, it could be said that the first social event of the rejuvenated club had been a success.

Now, how soon can I gracefully retire and hand over the chairmanship to someone else...?



In this, the first of an occasional series, our seasoned traveller Roundhead drops a few names

ROUNDHEAD'S RAMBLINGS

It is a pleasure to return home to the North-East corner of Suffolk after the hubbub of London to find breakers observing the unofficial code of conduct which is so important to the running of a CB network.

Contrary to that found in the metropolis, Channel 9 is always left clear and in my area, the Waveney Monitors Emergency Service operates a highly-efficient system each evening from 5pm until 11pm, demonstrating its ability to deal with a wide variety of calls swiftly and effectively via a dedicated team of breakers and a hard-working co-ordinating secretary, Currie Comb. I am sure this is also the case in many parts of the country — not only in East Anglia.

Having to journey regularly between Suffolk and London I am acutely aware of the differences in CB working. I suppose the problems in London are understandable and unavoidable while there are many breakers vying for airtime. This leads to conversations fraught with constant interruptions, whistles, music, dead keying, heavy breathing or just downright obscenity.

Nevertheless, it is amusing and instructive to hear how experienced lady breakers deal with the "bucket mouths." Listen to Lady Domino or Autumn from the Bethnal Green 20, or Staller from Islington and it is a revelation. They are never lost for a quick reply and respond immediately and firmly to any breaker who gets out of line. Away from the big city the situation becomes easier. There are fewer breakers battling for a channel and consequently less tension.

For mobile breakers on my much-used A12, the main topic of conversation is the roundabout at the "Army and Navy", Chelmsford. A great favourite with big wheelers is Peanut who lives close-by this notorious "doughnut." At most hours of the day there is a long build-up of traffic on the eastbound carriageway. Peanut can be relied upon to give an accurate assessment of the situation and whether or not a diversion through the town should be tried. She is great fun and causes much laughter among the truckers as she call out, after dark, "Now, don't forget to give me a quick flash as you go over the bridge!" From Peanut to Country Girl and on to Brown Eyes at Hollesley on the coast, these happy

voices come out over the air.

In my corner of Suffolk there are a number of husband and wife teams: Saturn Five/Lady Luck; Standstill/Ginger Nut; Shiner/Turkish Delight; Colour Code/Currie Comb; Barney Rubble/Velvet Lady; Mr Matt/Raleigh Ann; Bullseye/Lady Di; Screwwunner/Ladybird; Microman/Bush Baby; Music Man/Black Sheep; Captain Birdseye/Olive Oil to name but a few. A number of 'handles' reflect the occupation of a breaker — Turbo and Subsoil work on the land while Mr Frostie has an icecream van at a local beauty spot. Is it a hint that summer can't be too far away now that he is coming out loud and proud from his vantage point?

It is a strange experience to travel through the darkness of the Suffolk countryside, late at night, accompanied by a voice identifying itself as Big Geordie. This first-class breaker, much liked, works aboard a lightship some fourteen miles off the coast of Yarmouth. We count our blessings as he gives us a weather report and tells our breakers the sea is very rough. We have nothing worse to contend with than the darkness. It is strangely reassuring to hear him and I am reminded of the hymn about those in peril on the sea.

CB communication has its lighter moments. Lady breaker Guinea Pig meandering about the country lanes the other day heard: "Eyeball, eyeball! Can you see two helicopters?" Sure enough, there they were flying across to the Beccles heliport. "Well, I'm the leading one, just back from Germany." Her husband was excited — a helicopter contact — now that was something. Guinea Pig wasn't so impressed. "If you can see me, give me a flash with your landing lights". There was no response and she had had the better of well-known practical joker Standstill who has a mischievous sense of humour. He had spotted two helicopters, worked out that Guinea Pig's signal was strong enough to suggest she too might spot them, and she had. For good measure she called out: "If you're in the helicopter, I'm in a yacht!"

Waveney Valley breakers note, if you get a call from a helicopter make sure it is not Standstill up to his tricks again. It's funny though: Guinea Pig, upon reflection, is sure she heard the sound of the rotor blades. Now, how on earth did Standstill do that? . . .



More tales of Big T's travels

Last week John (Badger) and myself left Telford — John was on his way to London and the south coast and I was going to Dorset, Southampton, Portsmouth and Farnborough. We had planned to meet up at the little cafe in Hindhead, have a meal and our night out. Once again our plans worked out, with me arriving at the lorry park at 5.30 pm and John at 6.15 pm. After having our meal we decided to watch TV and have an early night to get up the following morning for a little DXing. At 5.45 am I woke up, switched on the rig and found that John had beat me at getting up and was already hard at it talking on channel 28 to Ivor (Ace Pilot) in Gloucester. Before very long, the copies were coming in thick and fast with many of our old friends from Reading, Portsmouth and London.

Both John and myself had planned to leave at 6 am but we were enjoying ourselves so much we stayed until 7 am. Many thanks to the many stations who gave us a shout and special thanks to all our friends who are sending QSL cards. Special thanks too are in order for Huggy Bear, Spiderman (Colin), Woodpecker and Shuttle One (Bernie). Both John and myself think you would make splendid applicants for the Exeter Gay Breakers club (Telford Branch) — keep your eyes on your PO boxes lads for those special pink envelopes!

My wife, myself and two of our sons had booked up a week's holiday in April at Duffryn, North Wales but, three days before we were due to go, we had our Transit Caravanette stolen from outside our own home. Needless to say, I was not too pleased. We informed the police and at the same time gave Telford Control a shout on the 19 with the necessary information. I had to walk to work which, luckily, is only about three-quarters of a mile from home. Hemel Hempstead was my destination on this particular morning and upon my arrival I gave Eileen a call to see if she had heard anything about our vehicle. I was pleasantly surprised to hear that Telford Control had been informed of the whereabouts of my wheels, just two miles from my home twenty. Two of my CB friends fetched the vehicle back for me. We found the CB missing along with about 12 cassette tapes, a small clock and a few personal odds and ends. The head lining had been badly torn where they had tried to take the gutter mount and

coax but we were relatively lucky at having the vehicle returned in one piece. I know of people who have had theirs wrecked.

Our holiday turned out very well but everywhere was rather quiet — even the CB seems to be very quiet up in that part of the world, but then I hadn't gone on a CB holiday.

Last week the Lima Delta DX Group held a very successful two-day eyeball at the Bucks Head in Telford. Eileen (Dragonfly) and myself went down on the Monday to have a look around and were made very welcome by the organising club, especially the chairman John (Monkey Wrench). I ended up being one of the judges for the fancy dress (fame at last). John was very pleased with the turnout considering the weather was not very favourable and plans another eyeball in the near future. Many thanks to the Lima Deltas for a very enjoyable day out.

This month's featured cafe is the Rendezvous which is situated on the A5, two miles off Junction 18 (M1). The cafe has just been taken over by new people and as I use this cafe fairly regularly it is definitely a change for the better. The cafe opens Sundays 10 am and does not close until 12 noon on Saturdays. Food is available 24 hours a day and it has a very large lorry park with room for 80-plus vehicles and sleeper cabs are very welcome at a cost of £5.50. This includes parking, evening meal and breakfast and those without sleeper cabs can get a bed as well for £7. The manager, Trevor, tells me the new video room is very popular — the food is good and the cafe is always nice and clean. The staff are very pleasant and helpful so any of you lads wishing to book a room should telephone Rugby 65165 or give Trevor (Tubby) a shout on channel 26.

On my travels I have many enjoyable moments just listening to modulations around the channels. One that comes to mind happened to me last week. I was travelling up to our depot in Farnworth near Bolton and was listening with great interest to a bunch of locals having a natter. The lad running the channel was Andy (I missed his handle), I QSK'd in and joined them and everything was going OK until Bob (The Bandit) from Newcastle came in to ask for directions from the A66 to Holmes Chapel.

Everyone was keen to help but the only problem was no-one seemed to know where Holmes Chapel was. In 10 minutes I heard Bob given five different

routes — one breaker Ken (Gritter 1) even suggested that he followed the next low-flying aircraft to get towards the airport I had to leave the rig to get unloaded so I do not know the outcome of this little story — perhaps I can catch Andy next time I'm up in Farnworth. The only advice I can give my fellow breakers is, if you hear Andy and the lads on channel, do not ask them for directions.

On my way home from Devon I had a natter with Ruby (Legs 11) from Dudley and during the conversation my writing for this magazine came up. Ruby tells me she reads and enjoys my page but she would like to see a little more about lady breakers so I thought why not. Many of my fellow truckers have wives or girlfriends who are home-based and most days you can hear them talking to their loved ones or favourite breakers. Most of the lady breakers' voices seem to suit CB more so than the bassy male voices and the one or two ladies who get on the hills DXing certainly bear this out.

Mery (Queen of Hearts) can quite often be heard blasting out from the Weaver Hills. Puppy Walker (Angie) has a nice little DX spot somewhere near Oxford and some days I can copy her mobile all the way from High Wycombe, and I don't usually lose her until I reach Birdlip, near Gloucester. Ruby (Legs 11) sends a superb signal from her home-base in Dudley — she covers most of the Midlands. However, in my opinion the best lady DXer is my old friend Chris (Long Tall Sally). Chris has a little spot up on the Long Mynd, Shropshire, and on a good morning has regular copies of 100-plus miles. On my travels round the country, many stations come in and ask me to give regards to Chris — keep up the good work, Chris. Last but not least is Elsie (Char Lady) — Elsie is chairperson of the Alpha Bravos, one of Shropshire's better CB clubs. She uses a little spot on Wenlock Edge usually chauffeured by her husband, Blue Archer (Terry). All these lady breakers send out smashing QSL cards — a must for any DXer's collection.

To close this month I would like to say how sorry I was to hear that my old friend Cyril (The Baron) from the Winchester 20 had passed away on Saturday 3rd May. Cyril has been giving out directions, 10-13s etc for many years on channel 23 and I am sure he will be sadly missed.

Big T



KEEP ON ROLLING

It is not difficult to understand why truck drivers and other long distance drivers were among the most vociferous and best respected of CB campaigners. Covering long distances, especially in some of the larger vehicles which adorn our highways, is a demanding task at the best of times and when the weather is bad, or traffic conditions difficult it gets even harder. There was never any doubt that improved communications would prove to be a very real benefit to them.

Even before the first rigs began to appear in this country, large numbers of truck drivers had gained first-hand experience of the benefits of CB as they drove through countries where it was already commonplace. It was these same truckers who first smuggled the odd illicit rig into the country, often at considerable, personal risk. In those days it was not only an offence to use a rig but there was also a strictly enforced prohibition on their importation and anyone found entering the country with a CB rig in his possession faced not only the possibility of a heavy fine but also the confiscation of his truck, since any vehicle found to be carrying contraband goods was subject to forfeiture to the Commissioners of Customs and Excise.

Despite these restrictions it was not long before lorries displaying strange radio aerials were to be seen

Undoubtedly, it was the truckers who got the CB ball rolling both here and in the States. Keith Townsend looks back

on most major roads. At about the same time we were introduced to films such as *Convey* and *Smokey and the Bandit* and suddenly everybody wanted to be Rubber Duck. Although CB radio was the real star of these and similar films it was run a very close second by the fabulous Kenworths, Macks and Peterbilts with their customised sleeper cabs and exotic paint jobs. Today's truck is a long way from the smelly, noisy, smoke-belching monsters of my youth but these Yankee trucks were something completely different and it was not long before British and European manufacturers faced a demand for features once regarded as luxuries but now seen, with considerable justification, as necessities.

Inevitably, no cab could be regarded as complete without the almost obli-

gatory CB rig and twin truck aerials on its oversized mirrors and drivers soon found that the regular checks, beloved of the police and Ministry of Transport and known to one and all as the wheeltappers and shunters, were being regulatory frequented by little yellow vans full of men intent on uncovering the most ingenious hiding place for that clandestine rig. However, despite all the perils, more and more truckers came to depend on CB, with the result that those irksome roadside checks became common knowledge for fifty miles in either direction within minutes of coming into operation.

Although there was no sound technical reason for the truckers' preference for channel 19 it seemed a good idea to follow the American example in this as in many other aspects of a hobby so obviously steeped in Stateside folklore and anyway, the skip was pretty high in those days and it was reasonable to suppose that with a little bit of luck you would find yourself in contact with a kindred spirit from the other side of the Atlantic. When legislation finally brought in a completely new set of operating frequencies, the use of channel 19 had become so well-established that it had become inconceivable that our motorways would respond to the chat on anything but 19, whatever its frequency, so that the changeover was accomplished in an instant, though the continued use of



old-style US rigs by many a driver did lead to a fair amount of confusion about which channel 10 you were referring to.

Long before authority caught up to reality the truckers' use of CB had become so well organised that the first of the regular channel 19 monitors had begun operation in various parts of the country. To many of these stations, more often than not operated by the ladies, the basic reason for a CB service was to promote road safety and they would sit by their rigs for long hours, keeping drivers informed on everything from roadworks and traffic accidents to the best place to get a decent meal. I sometimes wonder how many thousands of gallons of derv have been saved over the years by a timely warning to avoid a particular route or to make a slight detour. Since many of the drivers follow regular routes it was not long before lasting friendships were formed. A few even led to the altar. The sight of large trucks regularly tracking through housing estates that they would normally try hard to avoid was easily explained by the presence of a CB antenna somewhere in the middle.

You have only to take a trip down the nearest motorway to understand the value of CB to those whose lives revolve around the trunk routes. There can be no more frightening experience than to come upon an unexpected hazard, such as a bank of fog or an accident, at high speed, especially if you happen to be towing forty feet of something solid and heavy behind you. I should know! But for the quick thinking of one such trucker, I might never have written this piece, for, on one of my regular trips down the M1, I was amazed to see a lorry some two hundred yards ahead, indicate right,

then move smartly into the third lane, where he switched on his hazard flashers and reduced speed to a leisurely crawl. My rig had been switched off at the time as I was deep in conversation with a colleague. I switched on to ask the trucker to explain his rather unusual behaviour, only to learn that had I continued unhindered I might have become the latest addition to a pile of tangled wreckage waiting less than a mile down the road. Advance knowledge of road conditions has also saved me many a wasted hour, simply by allowing me to work out a detour before reaching the scene of a potential holdup.

Comforts

Like most of us, the average trucker has a healthy regard for the comforts of life and on a long journey finding the right place to rest and eat takes on an entirely new meaning. When you are up against the tachograph there is no time to spend searching for good food at the right price and truckers have come to rely on CB for the right information, with the result that many of the excellent roadhouses and transport cafes have become regular meeting places for the long distance lorry breakers and many use 27MHz as a means of allowing their customers to order before they arrive. One or two offer CB rigs and accessories as a sideline.

Almost the first thing you learn from monitoring channel 19 for any length of time is the high degree of respect with which the average trucker treats CB. Very rarely do you come across bad operating practices and when you do, ten to one it is not a trucker, most of whom use 19 as it was

intended to be used, by making contact and passing brief messages. These guys realise the importance of uninterrupted access to the airwaves and use one of the other channels for prolonged communication. Perhaps there is a lesson here for many of the rest of us. Of course truckers use their rigs just to pass the time away, like anybody else but they are careful to avoid hogging a channel which they know is being relied upon by hundreds of their fellow drivers from John o' Groats to Lands End. I suppose that really it is nothing more than an extension of the chivalry for which they are justly famed, or is it the fact that they know only too well that a life, maybe their own, might depend on the next 10-33 message getting through?

Stories of the help given to and by truckers, with or without CB, are legion but there can be no doubt that the mere presence of that little black box in so many cars has made our roads safer to travel, as well as breeding an even higher degree of camaraderie among the knights of the road. Since long before we were licensed, various groups and interests have advanced theories and reasons why they should have the exclusive use of this or that channel but nowhere can there be a more valid claim than that of the truckers and other long distance drivers to the uninterrupted use of channel 19, whether it be to report an accident or roadworks, or just to relay a message to let the wife know that they will be a little late home. A really effective message-handling service, channel 19 has been known to let a worried family in London know in under thirty minutes that dad was safely parked at Keele services, despite the televised reports of a multiple pile-up in the area. Many a driver has been safely

steered through previously unexplored territory, thanks to the tireless efforts of those whose homes overlook the various trunk routes and motorways. This is CB as it was always intended to be used, so, the next time you hear someone bleating about what is wrong with CB and what an irresponsible lot its users are, refer them to channel 19 and let them listen to CB at its very best.

Not that all DX driving is drama and disaster. Lighter moments have often been provided by the frustration on the face of some poor Smokey whose radar speed trap has not bagged a single customer on the last half hour. Official sources seem to frown on the practice of relaying such information as the location of traps over the air, unlike in the States, where the police will often use CB to tell drivers where their own speed checks are. I think perhaps this is due to a vast difference in emphasis. British police forces appear to take the view that radar should be sued to catch people speeding, whilst their American counterparts appear to take the more sensible view that it is more effective in preventing the offence. Ministry checks also seem to have become far more mobile since the advent of CB, because there is no longer any point in staying in one place for much longer than it takes for the word to get about.

Truck drivers have always been well-known for their willingness to help other road users, particularly hitch-hikers, many of whom have benefitted from the fact that the lorry which

picked them up was fitted with a CB rig. It is now a regular thing for hikers to be passed from one truck to another as routes converge and separate and I know of one guy who became a confirmed breaker just because he managed to get all the way from Manchester to Plymouth in four easy stages without having to walk a yard. The longest wait he had was one of five minutes whilst the next pre-arranged lift covered the few miles to the point at which the last breaker had put him down.

Expensive

Have you ever run out of petrol on a motorway? Me neither, but I am reliably assured that it can be an expensive business. Next to the fee which might be charged for bringing the odd gallon or two from the nearest service station the actual cost of the gas itself pales into insignificance. CB to the rescue yet again, as one trucker told me of having heard a call for help just as he was preparing to leave a service area. The call came from another trucker who had intervened on behalf of the luckless driver of a roller skate with a faulty tank gauge. As our hero was travelling in the opposite direction he collected the necessary and ferried it to the first exit beyond the point at which the motorist was stranded, where it was transferred to another truck, going the right way, to be carried

back up the motorway to where a grateful family were waiting. Total cost: the price of two gallons of gas.

Of course, there are many similar stories to be told of the help which truckers have given to others but I am glad to say that trade is not all one way. I recently met a trucker who told me of the time when, late one winter's night, he was unlucky enough to drive over something which put paid to not one but three of his offside tyres. The M5 is not exactly noted for its population density at three o'clock on a November morning and, wouldn't you know it, the roadside phones were out of order. His first few calls on 19 met with no response and so he decided to wait for the inevitable police patrol to put in an appearance.

In his own words: "Forty five minutes, three cups of coffee and a couple of fags later, boredom had set in and I decided to try the rig again. Straight away my call was answered by a very weak station who informed me that he was about twenty miles south, heading my way and would do his best to help when he arrived. We chatted for the fifteen minutes or so it took him to reach the truck, during which I learned that he was musician heading back to the Midlands from a gig in Bristol. On arrival, he not only offered me a lift to the nearest town but also broke his journey so that I could report the position of my truck to the police and then ferried me back down the motorway to where I could spend the rest of the night in the comparative comfort of my cab."

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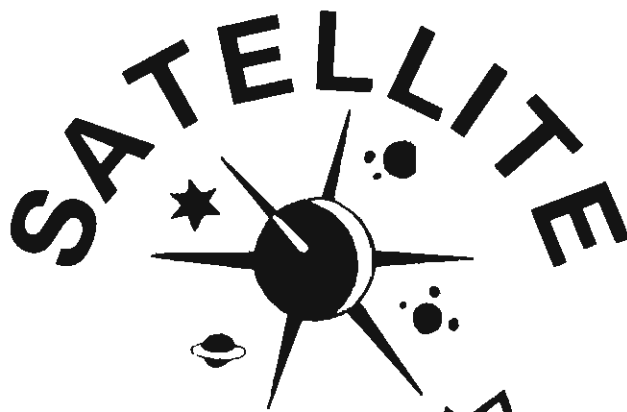
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LET COMMON SENSE PREVAIL

Has anyone noticed how, in lots of cases, if you put an innocent CB radio in the hands of a responsible, sensible person that, for some unknown reason, their plain common sense seems to fly out of the window? Another CB wally is born.

Let's be honest, we're none of us perfect and I should imagine that every last one of us has done at least one stupid thing over the CB. Most of us will admit that we bought a CB either because it was the 'In' thing, or purely for a bit of good clean fun. What I can't understand is why CB seems to produce a 'chemical reaction' in good decent people and turn them into gibbering, mindless, foul-mouthed idiots. Even those of us who consider ourselves as sensible have just got to admit that we have our mad spell, doing something which later we find ourselves ashamed or embarrassed of.

The DTI are now showing their true colours, despite their limited funds and manpower, and are desperately trying to clear up the air-waves for the more sensible amongst us. The way I see it, we have been allowed almost total freedom with which to hang ourselves. In most cases, it has worked. But there are still those amongst us who could do with an update on the good manners with which we were born or had drummed into us. Common sense and good manners seems to completely disappear when it comes into contact with CB. Why, oh why does this have to be so?

I can foresee a CB future, tied up with so many rules that we will not be able to call it fun anymore. To prevent this, we have got to pull our socks up and prove that we *are* sensible, responsible people and that we are capable of allowing CB to continue *without* rigid rules and regulations being forced upon us.

My main complaint is of general ignorance. Would you, for instance, walk up to two strangers talking in the street and *demand* to know who they are? If you are looking for someone, wouldn't it be a lot nicer to go on the side properly, apologise for interrupting and ask if that person is on channel? Would you go up to three people at a party, two of whom are talking, and just start talking to the third person across the other two? Of course you wouldn't. It wouldn't be

As they say, courtesy costs nothing, so Brandybird gives us a few tips here on how to behave responsibly on CB

polite. So why, when I am talking on channel, do people insist on coming on and talking over the top of us? They must hear us so why not wait a few seconds to see if there is already someone on? Surely that is just pure good manners.

Several years ago, myself and a few others formed our own emergency monitoring group. We did not have rules as such, just a set of carefully thought out, commonsense guidelines. I think that *now* is a good time to bring

these out of retirement. They worked for us then. I'm sure that if everyone thought the same, then CB would again become the enjoyable tool it has been before.

General Use

- Don't give out too much personal information over the air, such as addresses, telephone numbers, holiday dates etc. You never know what unscrupulous people may be listening and there are a lot of villains waiting to be tempted.

- When calling for a copy, or for a particular person, please give someone a chance to answer you. Remember, there are others trying to contact someone so don't be greedy and hog the channel. Give the others a chance. It might be an emergency trying to get through.



- Remember to key the mike before you start talking, and to finish talking before you let go of the mike key. (This isn't as obvious as you might think.) Also speak a bit slower than normal. It all helps to get your message through.
- When answering a call for yourself, please answer with your name or handle. Not everyone knows the sound of your voice. Say something like "..... on channel" or "Breaker for Pick a channel".
- When holding a conversation, please leave a few seconds gap before you start to talk; this will allow you to hear anyone trying to attract your attention. If you've ever tried to get on the side of someone on FM CB, you'll know what we mean by this *and* it might just be an emergency.
- Don't key the mike and call for someone whilst you can hear somebody nearby calling. You wouldn't do it face to face so don't do it over the air.
- Don't tell people to stop swearing, playing music or keying the mike, especially whilst they are still doing it. Use your brains; whilst they're keying, they can't hear you and you are just creating more hassle on the overcrowded channels yourself. Try and ignore the wallies; they get their thrill from listening to the hassle they cause. Ignore them, they'll soon get fed up.
- Please try and keep channels 9,14 and 19 *clear*. One day it might be you trying to call for help. Don't hold conversations on any of them. Give others a chance.


- If you are a homebased channel 19 user and usually only talk to other homebases, *please* use channel 14 to call your friends. There are now so many homebases calling for people on 19 that the mobiles/truckers are having one hell of a job getting hold of other drivers and road reports. If you do talk to the truckers, then fair enough. If not, please use 14 or better still find another breaking channel for your circle of friends, say 13 or 15.
- If you hear someone giving you a bad name, or someone keys over you or generally causes you problems, don't sink to their level by doing the same back to them. That only makes you as big a pest as they are. Rise above it.
- If you hear someone giving directions, don't keep interrupting with your own routes, you'll only get them confused. Go in on the side properly and give your ideas. Remember that truckers drive tall, very long, unmanoeuvrable vehicles. Think about low bridges, low telegraph or power lines, too sharp bends, and narrow roads along the route.
- Don't ask for time checks, rig checks, modulation checks, etc on 19. Use 14 if you need one. Mobiles have more important things to think about than looking at their signal meter.
- Do speak to elderly, disabled or housebound people. Bear with them in case they are deaf, and try and pop in to see them when you are passing.
- Don't say even mildly scandalous

- things about people over the air. You could easily end up with a case of slander against you.
- Do have consideration for other breakers operating close by. Try and sort out a rota system out if there are bleedover problems.
- Don't transmit anywhere near police, ambulance or fire stations, hospitals and petrol pumps. This last one may be not so obvious, but under certain circumstances can become highly explosive.
- Don't fight over who is to handle an emergency situation. Sit and make sure that the correct information is obtained and only join in if something important has been missed. Time spent arguing could cost someone's life.

Most of what you have just read is pure common sense, something that seems to disappear when in contact with CB. Read it and then admit that if we all adhered to them, CB would be a lot more friendly and a lot more practical. If you are a club member, take a copy with you and discuss it. Show it to your CB friends, let us all benefit from a rule-free fun CB system.

I've always worked to one rule. *Treat others how you would like to be treated yourself.* It has worked for me, so please use your common sense and your good manners when operating and don't do anything over the air, that you wouldn't like to hear yourself.

Brandybird




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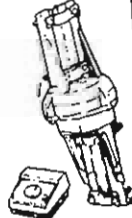
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BASE STATION

Lots of problems can be encountered in installing a home base. Here, Keith Townsend gives a few tips to avoid them

Although by far the majority of CB rigs end up in mobile use, the number of base stations has grown steadily over the last few years. The availability of instant communication is of immense value to the housebound and others who spend their time at home. Truckers and others know the value of a dedicated few who have sat by their rigs for hour after hour, giving out traffic reports, whilst still more have found that a fixed CB station offers countless hours of simple relaxation. Perhaps it is price which dictates that the majority of base stations are made up of mobile-style rigs, operated by means of a 12 Volt power supply unit, or is it the desire to use a single rig in both home and car? There are some superb rigs on the market designed specifically for the home but, whatever your choice, the way in which the station is set up and subsequently maintained will determine your ability to get the best performance for your money.

As we discussed last month, most of the pitfalls of mobile installation are likely to result in either poor performance, or interference at the station itself. In setting up a base station we not only have to consider many of the problems but, since base stations have a far greater capacity for causing long-term interference to those around us, we are also faced with the necessity to ensure, wherever possible, that our signals do not invade our neighbours' homes.

Recurrent interference to television and domestic hi-fi equipment, although by no means invariably due to a fault at the point of transmission, is extremely aggravating and can lead to a great deal of friction. Correct antenna location, choosing the right feeder path, suppression of harmonic and other unwanted output, ensuring that no signals are carried into a neigh-



bour's home via the main electrical wiring and even picking the right room in which to install the rig will all help to maintain good relations, as well as ensuring good performance from your station. In fact, the main difference between base and mobile operation lies in the fact that whereas under mobile conditions the CB receiver is likely to suffer the worst of any interference, in the home it is other electronic goodies which are likely to be worst affected, though there are still a few potential sources of receiver interference.

Fixing up the antenna

The first prerequisite of successful base station operation is antenna siting. The higher antenna, the greater will be the working range before lashing it to the chimney take a look round to ensure that it is not too close to a nearby TV aerial. Although the operating frequencies of CB and television are far removed, there is a limit to the amount of unwanted radiation that any aerial can reject and you might find that your signal strength is sufficient to block out or severely restrict the

incoming television signal if the two aerials are close together. Nor is it wise to site your CB antenna close to any large metallic object which might tend to distort its radiation pattern. Water tanks are notorious in this respect and if yours are in the loft there is little point in mounting the antenna directly above them.

Wherever possible I prefer to use a site some distance from the house itself in order to reduce the likelihood of breakthrough onto entertainment aerials but this invariably leads to some slight increase in the cost of the installation, as it becomes necessary to use high quality, low-loss, coaxial cable to overcome the power losses which accompany the extra length. It is also advisable to avoid mounting a CB aerial in the same horizontal plane as local TV aerials.

Wherever the antenna is to be mounted, it is important to ensure that it is insulated from any metal structure to which it might be attached, so as to avoid altering its resonant length and do not be surprised if you discover that the value of VSWR varies with change in height, as the antenna will

INSTALLATION



"The number of base stations has grown steadily over the past few years"

might be unlikely to operate in direct opposition to your own TV set it is worth checking that your neighbour's is not separated from the rig by nothing more than a brick wall, since such close proximity can lead to direct breakthrough onto the TV set's internal circuitry. Location also demands a clear path for the antenna feeder cable, so its pays to choose a room which does not necessitate a big increase in cable length, which might reduce the station's efficiency.

In the event that you do not have a purpose-built rig with its own internal power supply it is worth giving some consideration to the supply unit you intend to use, since a poor quality one can have quite a dramatic effect upon performance. There is often some temptation to save a few pounds at this point by buying the cheapest model available but, in this, as in most things, you get what you pay for. Although 3 amps is nominally enough to drive a CB rig with a power output of 4 Watts it is important to ensure that the current is constant and, in many of the cheaper models which have come my way it is not. Far better to have one capable of delivering a constant 5 amps and an occasional 7 amps under surge conditions, in the knowledge that you are in no danger of over-driving it.

Another problem commonly associated with many cheaper models is loose laminations on either the primary or secondary coils, which can result in a severe humming noise, capable of being picked up by the microphone and transmitted as part of your outgoing signal. The better quality psu is also likely to contain a better quality heatsink and consequently run cooler in prolonged use. This is particularly important in FM transmissions because, unlike in either AM or SSB, the amount of current drawn is dictated by the

Left: The first prerequisite of successful base station operation is antenna siting

Above: There are some superb rigs on the market designed specifically for the home

require to be balanced against earth and nobody has yet been able to discover precisely where electrical earth lies. Raising the antenna a few feet may well result in a corresponding increase in VSWR, which will need to be corrected by minor adjustments to the length of the radiating element.

Whilst discussing antenna erection, perhaps we should also point out the apparently obvious. More than one person has been seriously injured because he set up an antenna or its associated lines too close to overhead power cables. A completed antenna system is almost the perfect earth path, so be sure that you site everything well away from overhead cables, pylons and the like.

The importance of choosing good quality coaxial cable, especially where a longish run is envisaged cannot be overstated. RG58 may be perfectly adequate in mobile operation but its losses over a given length are staggering when compared to some of the heavier cables, such as RG8 or UR67 and, since the strength of your signal depends on the amount of power delivered to the antenna, it is impor-

tant to keep power losses to an absolute minimum. It is equally important to create a sound, watertight junction between feeder and antenna and the most effective method of preventing water from seeping into the joint and working its way along the cable is to use a right-angled connector, so that the feeder does not hang straight down and to form a half loop close to the terminal point so that any water which might get in has nowhere to go. It is also advisable to coat the joint in some waterproof substance, such as underseal. Whenever possible, avoid linking two lengths of feeder cable because the losses at the extra junction might rob you of up to half of your transmitted power.

Setting up the radio

Obviously, the first thing to be decided in setting up any base station is the room from which it is operated and here there are a number of pitfalls. It is, for instance, simply asking for trouble to place the rig a mere few feet from a television set if the two are likely to be operated simultaneously. Whilst you

carrier wave and will, therefore, be constant so long as the mike key is depressed.

Actual installation of the rig itself is no more difficult than connecting the antenna cable, power supply unit and microphone but before making the first test transmissions it is worth looking at some of the problems which can crop up from time to time, since prevention is better than cure. The first step is to ensure that you are only transmitting on the required frequency. Every radio transmission, regardless of the band in use, is accompanied by some degree of radiation on harmonically related frequencies, or multiples of the originating frequency and if interference to those services using frequencies such as 55MHz, 82.5MHz, 110MHz and so on is to be avoided it is important to suppress this unwanted radiation.

This was the reason for the original demand that only base-loaded antennae be used for CB, since the loading coil tends to suppress harmonic radiation and placing it at the bottom of the antenna would have the desired effect before the signal reached any part of the whip. Inserting a low-pass filter, with a cut-off point no higher than 30MHz into the feeder cable will take care of the problem. The filter should be inserted close to the rig, so as to ensure that no unwanted radiation can be developed along the feeder but care should be taken to ensure that the length of cable between rig and filter is not resonant at 27MHz, or it might act as an antenna and defeat the entire object of fitting the filter.

Interference can also occur as the result of radiation being fed into the mains cable between the radio and the psu, or between the psu and the mains supply point. Since most houses are fed by means of the three-phase system in which every fourth house uses the same phase, the resultant interference often occurs not at the nearest TV or domestic radio but three houses down the road. Most CB dealers will be happy to supply you with a filter designed to overcome this problem, which should be inserted in the main supply lead, as close to the plug as possible. You might also find that the mains lead generates interference because it is picking up your signal in the same way as a receiving antenna. Simply altering the length of the lead, so that it no longer responds to a frequency of 27MHz, will soon cure this problem and the same remedy will take care of the lead to a TV set if it is found to respond to your CB signals.

Although omitted by many operators, it is just as important to earth the outer casing of a base station as it is with a mobile rig and, here again, problems will occur if the earth lead has been cut to such length that it is capable of picking up your signal. Never earth to a copper water or gas pipe since they are often connected to some other material soon after entering the ground and may not provide an adequate means of earthing. The correct method is to drive a metal spike deep into the ground and con-



Power supplies — essential when using mobile rigs for base stations

nect an earth strap to it.

The same precautions should also taken in respect of antennas and masts, which might one day prove attractive to some passing bolt of lightning. I know of at least one instance in which an expensive antenna and mast survived intact, despite a direct strike, simply because the operator had taken the precaution of sinking a three foot long earth spike into concrete. Despite the fact that the spike was two inches wide it totally disintegrated, leaving him still finding thin slivers of iron lying around, more than two years after the event. Remember to replace the earth spike, should any damage occur.

“In theory, the most powerful station rules the airwaves, but . . .”

Whilst on the subject of possible lightning strikes it's worth mentioning the fact that because static electricity can build up on aerial and feeder systems there may be more danger in disconnecting the feeder during a storm than in leaving it in place. Reconnecting it after the storm can mean that the first chance it has to discharge is through you! Even though it is only static, the charge may well be sufficient to cause you harm. The easy solution is to mount an antenna socket onto an earth strap in such a manner that both sides are grounded. Inserting the feeder plug into this socket when lightning is about will ensure that no

harm comes to your rig and that it is safe to handle when the storm is past.

Beefing up the station

In theory, the most powerful station rules the airwaves but there are so many problems associated with trying to obtain that extra bit of power that it is rarely worth the effort. Quite apart from the fact that there are regulated limits to what may legally be used, increasing the power almost invariably the likelihood of breakthrough onto other services with no guarantee that it will achieve the desired effect. Power amplifiers have always been available but it is not always appreciated that as much as a tenfold increase in power may be needed to make one “S” point difference in signal strength at the receiving station. At frequencies around 27MHz, propagation follows two distinct paths, ground and sky waves. Since radio waves travel in a straight line, no amount of extra power can increase the groundwave range, since it cannot follow the curvature of the earth. Skywave, on the other hand, shoots off at a pretty steep angle, with the result that most of its effect is lost at times of low sunspot activity, such as we are currently experiencing. Only when such activity is relatively high do we gain any real advantage from skywave, as the signal is reflected by the ionosphere, to return to earth with some pretty impressive results. At times like that you need no extra power.

Power mikes are perfectly legal but have little effect when used with an FM rig, as the depth of modulation is constant, no matter how much audio you shove in. Their use may have the effect of sharpening your audio but you can obtain the same result by using a compression mike, with the advantage that it will place no additional strain on the power amplifier stage of the radio.

Like anything else, a base CB station will require occasional maintenance if it is to continue to operate at maximum efficiency and with a little care you should find operating from home a most rewarding pastime.

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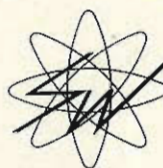
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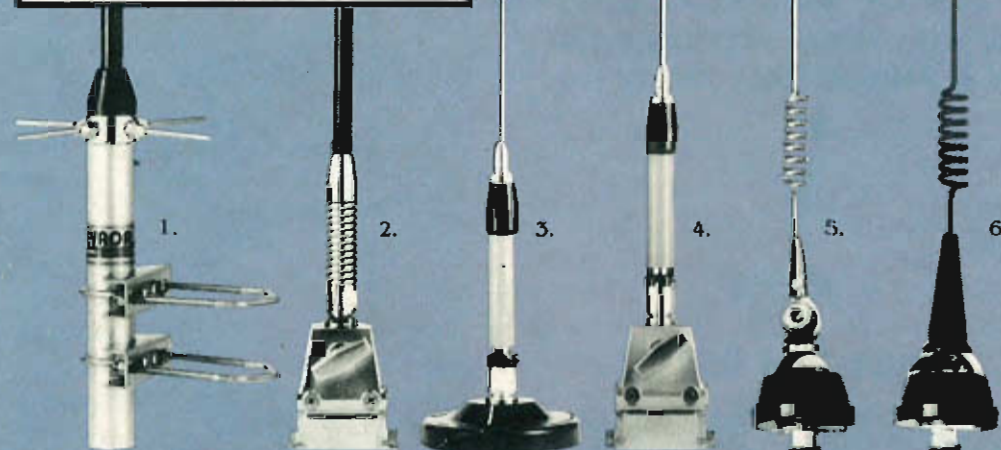
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