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One Step Ahead of the Rest!

# Gitizens' Band

SEPTEMBER 1985

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**VOLUME 5 NUMBER 10** 



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David Shepherdson brings us the lowdown on the perils and pitfalls of running a QSL club.

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NEWS FROM THE WORLD OF CB NEWS FROM THE WORL



# Editorial

As we swelter this long, hot summer away in our plush London offices, wondering what it would be like if we had air-conditioning, I'm looking through the contents list of this issue and thinking what a delight we have in store for you this month. Modest, aren't II

Elsewhere in this issue, Keith Townsend puts on his Robin Day bow-tie and questions John Butcher MP, the Under Secretary of State for Industry about, amongst other things, the current state of play regarding the introduction of the CEPT frequencies. Trevor Butler takes a knowledgeable look at power supplies and, in answer to the many letters received on the subject of forming QSL clubs, David Shepherdson has come up with a feature on how to run one successfully (or two in his case!).

The July issue contained the last Truckstop column written by Gismo, but we were lucky enough to secure the services of Big T (Terry), who takes over the column starting this month.

I'd now like to mention a few points regarding our Free Readers' Ads service. Firstly, could advertisers please print the wording required and take care with punctuation. A hastily scribbled ad can sometimes be misread, a comma in the wrong place can totally alter the meaning and, consequently, the wrong information is published. Please take care, too, with telephone numbers. Some people's 'zeroes' look like 'sixes' and, as you can imagine, the consequences can be pretty grim, with some poor, puzzled people

receiving strange telephone calls.

Another point: we accept these ads in good faith and on face value. However, much as we hate to say it, there *are* unscrupulous people around. We advise any readers wishing to, say, donate equipment to check the validity of the advertiser in the first instance before sending equipment.

Finally, Free Readers Ads in June included a request from the Jacobite Warriors for members. It has been pointed out to us that the information sent was incorrect. The fee is £7 (not £9 as stated) and interested parties should contact the Secretary (not the Director as stated). We have included this correction to prevent them becoming the Jacobite *Worriers*.

Eamonn Percival



# Radio Frequency Choke

A company called EMC Datacare recently announced a new component — the D910 Series clip-on radio frequency choke — designed to solve radio frequency interference problems (RFI).

RFI often afflicts radio, TV and audio, as well as computers and telecommunication systems. The problems usually arise from cables acting as aerials, producing unwanted common mode signals. The D910 common mode chokes can be installed on cables of up to 10mm diameter without the removal of any connectors whatsoever. The kit costs £22 plus VAT inclusive of delivery in the UK. Requests for the D910 data sheet should be addressed to Richard Marshall at EMC Datacare Ltd, Power Court, Luton, Bedfordshire or telephone (0582 450092).

# Portsmouth Monitors

We recently heard from a monitoring service in the Portsmouth area that we haven't come across before. The Portsmouth Area Emergency Monitoring Service has been in operation since January 1982 and many of their members are trained first aid personnel. They aim to provide a monitoring service 24 hours a day, 365 days a year throughout their region.

They cover the Portsmouth, Chichester, Fareham, Gosport and Isle of Wight areas and are always looking for volunteers in these places. If anyone down that way is interested they should contact the area secretary on Portsmouth 664698 or write to PAEMS, Freepost, Portsmouth PO2 7BR.

# CB Saves Stranded Pilot

Ambulance man Colin White flew into action when he heard an emergency call from a crashed hang-glider pilot in the Chorley area recently.

Geoffrey Mott, a hangglider from Leyland crashed, breaking a leg, and radioed for help on his CB. Luckily, Colin was listening to the CB while off-duty and immediately rushed to Chorley Ambulance Station to organise a rescue mission.

Ambulance Station chief Karl Smith said: "I immediately contacted our headquarters in Broughton and they got the lads from Blackrod to go out there. They managed to find the pilot and took him to hospital."

Happily, Mr Mott was discharged from the hospital after treatment.

# New from Telecomms

Telecomms of Portsmouth recently announced the introduction of some new equipment for 27MHz. There is a new version of the Sadelta Echomaster, the popular model which sold over 3500 pieces last year. This microphone has many new features including an internal 9 volt battery (the previous model required external powering), a switchable Roger Bleep circuit and an improved on/off switch design. It is

priced at £59.95

The Nevada PLP1 HFlow pass filter, made in Telecomms' own Southampton factory, is intended to work in the antenna line of a transceiver, cutting out all harmonics above 30MHz and thereby reducing the risk of TVI.

Rig doctors will be pleased to hear of the Nevada SU1 HF-signal sampler, a unit designed to give a low level signal feed as required by frequency counters and other test equipment. Like the abovementioned filter, it retails at £6.81.

Telecomms' managing director Mike Devereux also tells us that they believe the UK CB market has started to 'lift' again. Such is their optimism for the future that they have invested in new machinery and tooling for their factories in Southampton and Wales producing Nevada brand products. And yes, Mike, we agree with you about how nice it is to see the Made in England badge on so many products at last!







Top left: the Sadelta Echomaster Plus with internal battery. Top right: the Nevada SU1 HF-Signal Sampler. Left: the Nevada PLP1 HF-Low Pass Filter reduces the risk of TV1.



More readers' thoughts from the mailbag





Plan for Band Plan Another missive from Martin Wright of High Wycombe...

Thank you for publishing my previous letter in the May issue. To answer both the editorial comment, and the letter from Breadman (June), may I quote from the end of that previous letter.

"What is unreasonable is the attitude that the £20m+ from licences and VAT is not spent on silencing the abusive element. CB is a trivial toy unworthy of 'band planning' for effective use by the emergency services in conjunction with the public at large. There is no room in the RF spectrum to permit more channels, when there is no significant use other than CB between 26 and 28MHz."

I am very much an advocate of restrictions and regulations *provided* that they can first of all be realistically enforced, and secondly are so drafted as to cater for as wide a diversity of user requirements as possible. The present CB rules cannot be enforced because the Government won't allow the full revenue to be so spent. Furthermore the rules are so weak in respect of disciplined channel use that abuse is inevitable.

Yes, we must have formalised call signs, I have previously proposed this to the DoTI indicating that postcode and vehicle registrations would serve adequately. I have also proposed that licences be specific to one person only, and charged at a rate of £5 per group of 40 channels and £5 for each mode (AM, SSB, FM) with the requirement of the basic licence be 40 channels FM. I am also an advocate of the concept that the CB user accepts full responsibility for the prevention of causing interference to any other equipment, not just to broadcast reception as at present.

Breadman by now will have digested the article by F. C. Judd and realised that UK CB is in fact 2 watts ERP not the 4 that so many seem to think it is. Having in the past DXed very well all over Europe from Scandinavia down to Greece with 2' watts PEP SSB on a 9foot whip, then perhaps he will get some idea as to the vastly improved propagation of SSB compared with FM. I have no time at all for those who, through ignorance alone, believe that DXing needs at the least a 200 watt burner through a huge beam antenna. Not from a hill-top either, down here in the valley.

To Breadman, yes I am bitter, very bitter with the Radio Regulatory Department and all those CBers who accepted the totally useless 40 channel FM idea, when with nothing more than genuine concern and commitment we could today be enjoying an effectively policed, properly regulated service envied by the world.

To those who think that a comprehensive, all-mode 200-channel CB is back door amateur radio and those who expect such a CB service should take the ticket'; well I did become a 'ham' some years ago, only to find that my own pet interest in radio technology is prohibited to amateurs - ultra high speed digital transmissions. However, I refuse to use the amateur bands for social chit-chat, or keeping in regular contact with my family throughout Europe. Such communications are, in my view, the very sort that CB is intended for. I don't like breaking the law, even what I and many others see as a bad law, and today I no longer do so, but I will never give up the quest to realise a totally reasonable properly regulated CB service. As for Breadman's fears that UK FM on the old FCC channels will be wiped out be continental SSB, well a few minutes today checking this with my HF receiver more than confirmed his fears, not a single channel with less than an S6 signal being received off my Thunderpolel If ever there was a cast-iron case for 200 channels working a rigidly enforced 'band-plan' common to the whole of Europe today was it.

Perhaps when we do get the new channels there will be enough of an outcry to bring some constructive reaction preferably from Brussels, for it would seem that there, and only there, are the politicians showing any concern towards the aspirations of the public of Europe in respect of responsible CB. To close, the experience of Tony Jaconelli with the British CB Council is not unique. I became a member of this 'organisation' soon after its founding, apart from the envelope of membership papers etc, I have heard nothing, not even the courtesy of a reply to an offer to test antennas for compliance with specification. If this organisation wishes to represent the interests of CB in the UK, perhaps they could be a little less coy?

The alternative, may I dare, is that 'Citizens Band' assumes the role of the voice of UK CB? You are after all in an ideal position to canvass opinion and function as a central co-ordination point for all the clubs up and down the country.

# More Phone Problems

Mercury, from Southampton, is another sufferer. . .

I was interested in your correspondent Merlin's letter re phone equipment interference to CB in your July issue. Several years ago, we went over to British Telecom's Herald all-singing, all-dancing phone system and my effective receiving radius dropped from around 15-20 miles to 3-5 miles, plus complete blanking of channel 20 due to radiated hash from the system.

As I am the resident caretaker and therefore unable to escape from the problem, I contacted Telecomms who did, in fact, put quite a lot of work in trying to sort things out but, apart from clearing channel 20, had no luck Eventually I received a letter from BT's National Networks promising help, but as this was back in June — and I have heard nothing since — they would appear to have had little luck eithed

As I am retiring shortly and shall be moving out, I haven't pursued the matter, going mobile anytime I felt like a bit of DXing. As a side issue, it will affect any little domestic 'tranny' brought into proximity of a wiring run, and I have heard cab drivers complaining of black-out when near an installation. Switch the system off, you might say. No way; that wipes all the memory banks clean!

# **Another Satisfied Customer**

P J Rands of Heathfield is happy, anyway...

In this day of poor customer service, I feel an experience of mine is most worthy of comment. I purchased a small piece of CB equipment from Telecomms of Portsmouth, valued £20. The first time it was connected it failed to function. I returned the piece without receipt and received a replacement *two days later.* How nice it would be if this kind of service was more common.

# Find the Wally

Broken Biscuit, of 17 Merry Lane, Clive, seeks other direction finders....

One of the most prolific subjects of comment on and about CB is the wally. Your magazine regularly prints letters of complaint from 'normal' breakers. Wallying on selected channels by friendly breakers is a normal and acceptable facet of CB but destroying modulations and blanking out the 9, 14 and 19 channels with music, mike-keying and bucketmouthing by TX vandals is totally abhorrent to 99% of all breakers.

I believe that a dedicated group of breakers formed into a direction finders club and working in conjunction with local clubs could reduce the number of those vandals by 50% over a five-year period. Obviously, forming such a specialist club will be difficult and until sufficient breakers join in order to form a committee, I am offering my services as a caretaker chairman and invite all breakers, particularly those with DF equipment, who are genuinely interested in helping to tackle this



More interference from Buzby ...

problem, to contact me with their names, addresses and phone numbers.

I have already spoken to several equipment manufacturers but would appreciate any I have not spoken to sending me literature and specifications of any equipment in this field for onward despatch to potential members.

Many Shropshire breakers already know of me and my strong feelings on this subject but no doubt I will receive letters of complaint from individuals hoping for a quick fire cure. These complaints will be passed on to local breakers in the area of complaint and will hopefully form a base for members to work from, but my primary reason for this letter is to attract active members. In order to sort them out from the supporters, may I respectfully ask you to include £1 in your letter. cheque or postal order, payable to Direction Finders Club. This will help me defray the cost of starting the organisation. In return, I will send you an analysis of what causes and breeds the vandals, literature and specifications on DF equipment, an up-to-date list of other interested activists in your area and a membership application. Membership will not be automatic; an election system will be used and each member will be offered for election within his/her own area. Finally, please allow three weeks for the despatch of each portfolio. I would like the information to be fully up-to-date before I contact you.

# Telecom Trouble

From Baythorpe, Spiderman is another reader suffering telephone interference. .

I am disabled and find that CB is one of my major hobbies because I can meet and communicate with friends. I have had a homebase set for two years and have suffered with a S5 to S7 signal of interference for some months. I got in touch with British Telecom and, after three phone calls, they came and located the interference on frequency 25 MHz to 50 MHz, the culprit being a computerised telephone system installed by them. They said there was nothing they could do because CB is not a recognised frequency.

This week, I phoned the Department of Trade and Industry and they said the same as British Telecom that nothing could be done about the interference. However, they said that if the interference from the telephone interfered with the TV or radio, they could be made to cure the interference to them and, in turn, the CB.

No wonder us lawful breakers get unlawful breakers like mike-keyers, music players and bucketmouth people. The answer must be that there are no enforcable laws to protect us from illegal interference such as telephone, radio, mike-keyers and bucketmouths.

Personally I think the infernal licensing laws warrant a change, what on earth do we buy a CB licence for?

# Good for Glasgow

The Comet, from Glasgow, is upset at Gismo's view on the city. . .

In answer to Gismo's comments about Glasgow breakers recently, I am a Glasgow breaker and, yes, there are a multitude of decent breakers here but unfortunately you didn't stay long enough to find them. I am sure if you spend more time up here you will soon find this out for yourself.

My point is this — you do not come to Scotland very often (othewise you would have brought up the subject long ago) and therefore you do not know anyone here. So what do you do? Of course! You flick through and evidently find a lot of verbal abuse.

But try this some time. Travel to London but do not pick up the mike. Instead, listen on all channels and l assure you that you will be astounded. I think what you are trying to do is to make Scotsmen and women out to be second-class citizens on a first impression.

Well, the damage is done — we now have a totally unjustified reputation. The words in the magazine hurt and it's up to you to do something about it.

Letters should be addressed to: Back Chat, Citizens' Band, 1 Golden Square, London W1R 3AB





# Mack appears to be in favour of 934 MHz

e don't hear you on the local CB channels much nowadays, have you finally had enough?" enquired an old CB pal that l

met recently in our local high street. "No", I told him, "you will find me on the 934 most evenings". I then continued to explain how the UHF CB frequency has progressed, and left him with an open invitation to visit my set up for a demonstration. I still use the 27 at times, more so when mobile, out of town, and looking for 10-13s on the traffic or when searching for locations.

Recently, another of my mates, Barry, who lives in Leyton, a distance of about 21/2 miles from my own home QTH, tried to conduct tests with me. Barry had to hook up with some of his mates on the 27. It was rather late in the evening and we had been waffling on the 934 and on this mode we give each other end stop signals or as we say "all the lights". We switched over to the agreed channel of the 27; it was clear enough for me to hear Barry and he could hear me at around S9+ but it did not last long as the interference caused by other people using the channel (some near and some further away) stopped Barry and I from holding any coherent conversation.

I really don't need to use the 27 from my home anymore but I do miss some of the people that I used to waffle with on the 27MHz channels. Would you eat bread when you could eat cake, or would you drive a 10-year-old Escort if you also had the opportunity to drive this year's model Porsche? That's the difference between the 27 and 934. There are new people appearing on the frequency almost daily and most of them say that they have had enough of the 27 and, having listened on their mates' rigs, have decided that the 934 is a better alternative.

Of course many may say it is too costly but, if you are keen enough you will find a way of raising the cash for even a secondhand rig and antenna. You can now obtain such a secondhand set up at the same price as some 27MHz set ups would have cost when CB first went legal. On the 934 channels there are many retired OAPs, and they found the capital for the equipment. have even spoken to a couple of stations that claim that they are unemployed yet somehow they also found the cash for a set up. You don't really need to buy the expensive antennas that are available on the market; many are finding it quite easy to build their own twigs now that there are some decent SWR meters available for the frequency. On most other frequencies one normally needs the space of a garden or garage to assemble antennas but 934 antennas are easily built on a kitchen table.

Some time ago when the powersthat-be deided that this country was to be allowed a CB system, it was suggested that we would be operating on a frequency around 900MHz. The hue and cry that followed from people who claimed to know of these things produced reports that these high frequencies could cause brain and eye damage. In some circles it is still believed that it is dangerous to be in close vicinity of 934 antennas because of the UHRF which is radiated from them when transmitting. Some people scoff at this idea as they say that 934 is not really that high and it is not really microwave as some believe. Yet, is it a coincidence that on a couple of occasions when testing antennas I have developed headaches? Another couple of stations that I mentioned this to also told me that they too have suffered these effects. On the many other occasions that I have tested antennas at close range there were no ill-effects.

As you may know, the new cellular radio telephones operate on 935MHz and when at times I happen to pull up alongside vehicles that have this system on board with their antennas sometimes only inches away from my head, I look to see if anyone in the vehicle is using the telephone. Even if they aren't, I tend to shy away from the suspect antenna. If the reports that were produced in the early days had any truth in them, then surely this cellular radio could be dangerous - even to a pedestrian standing on the pavement waiting to cross the road. Some time ago, it was reported (and maybe it is still going on) that some CBers were being pulled by the police if they were seen to be operating hand-mikes whilst driving. I wonder how many of



these users of cellular radio are being pulled for the same such thing as I have already seen a couple of near misses of an accident taking place because of people trying to drive whilst waffling on their telephone.

Once it was "How am I hitting you?" then it was "How many pounds am I giving you?" On 934, it's "You're giving me all the lights". With a proper Smeter, and I mean a moving coil type with a needle, it is of course a much more accurate way of giving one an S reading on one's signal. S-meters are also valuable in that they have the ability to check the radiation pattern of the 934 beam antennas that are available. It's a bit of a puzzle how manufacturers set up these S-meters; of all the CB rigs that I have owned in the past, no two have read the same. What usually do is to reset them as the rigs have a variable control on the circuit board. Not having a signal generator, I usually key up on another rig on low power (a hand-held) and set the Smeter so that it reads end stop. On the 27 or 934, with practice, one should be able to tell who is keying up even before they talk.

Whilst on the subject of S-meters, I suppose you have heard the saving "You're bending my needle and blowing out my front end". Well, another friendly CBer that I know and sometimes meet told me that this really did happen to his rig recently. The culprit station was lightning. No, that's not his handle, but that large electrical flash that you see during storms. My pal told me that he was listening on his rig during a storm (silly boy) and lightning struck nearby. His rig ceased to function although all the lights were lit, the S-meter was stuck at end stop and his rig doctor told him his audio output had blown. So that's another lesson learned; stay away from power pushing stations and only fools operate during thunderstorms. Unplug all power and antenna leads. Not wanting to lose any of my fans or get them into trouble with licenced amateurs (as some can be rather nasty as I well know) I must apologise to Charlie Brown for misreading his letter. I should have known better to believe that 'Charlie Brown' suggests that we CBers operate on 28 MHz.









This month, Filly is plagued by throwbacks to Woodstock

The wallies have moved in. Again. All you urban dwellers probably think you've got a monopoly on this particularly virulent form of pest, but believe me, they're everywhere. It's some time since we were last afflicted - a group of them picked on a field belonging to a local farm as a campsite and proceeded to fill the airwaves with music (well, they seemed to think it was music), abuse and more abuse. It was three days before we tracked them down, but as there were four of them, and each one built along the lines of Big Daddy, we were disinclined to ask them to move on. In the end, the

# LADY BREAKERS

farmer turned his entire herd of cows into the field for the night, and in the morning they had gone. Thank goodness for the less-than-fastidious habits of cows.

And now they're back, not the same ones, but more of them.

The problem was, the ancient (but venerable) owner of an ancient stately home ten miles away had hit upon the bright idea (or so it seemed at the time) of holding a festival to help with the running costs of his crumbling pile. Goodness knows what he had in mind picnics by the tents and barbeques in the evening, with lots of folksinging and morris dancing, I think. Festivals these days aren't quite like that, as his alarmed neighbours tried to explain. The festival went ahead last week, and I went along one evening, enjoyed some music, and heard that the crumbling pile was still intact at the end. The owner is even talking about doing it again next year. So that was all right.

Most of the guests have now gone — but not all. Unfortunately for everyone attempting to use CB radio within a ten mile radius of the local common, a group of them have taken a fancy to the neighbourhood.

They turned up in the wake of the procession, driving through the village on their way to the site of the festival. Five of them, three men and two girls — I think, it's not always easy to tell — driving a deplorable old Bedford van belching out clouds of evil fumes and sounding the horn at every female they passed. A huge and probably illegal antenna bounced about on the roof. Oh well, we said philosophically, they're only passing through.

They disappeared in a cloud of dust and black smoke and we heaved sighs of relief. And that was that for the next few days. But then it all started.

They were quite subtle to start with, restricting themselves to button-pushing — irritating, but it happens, people do it by mistake. It takes a while for it to percolate through that any breaker could deliberately try to mess everything up for everyone else on the air. I mean, what's the point? It happens so rarely round our way that we find it hard to understand the mentality.

It got worse. They started to hog channels — particularly channel nine, needless to say — and break into other people's conversations. We started to recognise their voices. One of the men had a fine line in rugby 'humour', and another had a unique way of propositioning females. One of the girls had somewhere managed to pick up a string of obscenities which even surprised me, travelled as I am. A lot of the time they sounded high as kites.

Well, what do you do? We reported them to the police, spoilsports that we are, but the police failed to find them. Presumably they were living in their van, but goodness knows where. We discussed ways of discouraging them, and they must have laughed them-selves silly listening to us. Some wanted to physically persuade them to leave the area, but that, of course, is very dodgy. You can so easily put yourself in the wrong. Some breakers abused them back (they loved it), some tried to shame them (they don't know the meaning of the word), others simply tried to ignore them (not always easy when music is blasting out on your favourite channel, or someone has taken it into his or her head to follow you across the channels).

I got so fed up that I stopped using the radio locally, which is just as unsatisfactory. It's a victory for them, driving you off the air.

Not a good week, all things considered. I've read so many letters in this magazine and elsewhere complaining about these 'people', and discussing ways of dealing with them. When you don't know where they are and can't get them caught doing anything actually illegal, it seems you are frustratingly helpless. If their van can't be tracked down, I suppose we can only hope that they will eventually tire of the area and move on to cause havoc elsewhere.

One thing has been made very clear, though. They love a response, any response. It stimulates them. So the best short-term answer, maddening though it is, seems to be to come off the radio altogether and leave them to insult the empty air.

And at least you know what to do should you see a bright purple Bedford van with an oversized antenna and a huge lipsticked mouth painted on the side come roaring into your street. Inform on it! The tyres are probably bald, it's almost certainly not taxed, if there's a speed limit it will be exceeding it ... you can't miss it!



# David Lazel looks at the consequences of pirates on land and on sea

s far as some people are concerned, CB is a bit like Dracula — dead, but it won't lie down. But to use another movie comparison, you ain't heard nothing yet' (uttered by Al Jolson in Warner Brothers' first talkie musical).

When CB arrived in Britain, belatedly and on a frequency that many did not welcome, the next move seemed possibly to electronic scanners, or maybe a quite holiday some place where no-one had heard of radio in any size, shape or form. However, for many of us, community radio was the next move, and the 'nets', organised up and down the land, anticipated the shape of things to come. In Australia, where UHF CB was used by enthusiasts also possessing the humbler 27MHz AM (FCC frequency rigs) there was a spread of ad hoc participatory discussions like 'Angels on 30' - in which ladies conversed on home cooking and much more on Channel 30. Thanks to UHF CB, such ambitious use was possible, and open to any person wanting to get involved. However, even UHF CB could not hope to handle all the demands of specific interest, foreign language or ethnic group interests which, in Britain, want access to radio.

Strangely, the miners' strike had added a new impetus to the demands of enthusiasts wanting co-operative and non-profit-making channels ---something like the public access programming found in many US city cable TV services. During January 1985, one of the East Midlands ILR (independent) radio stations com-plained that its transmissions were being interrupted by a clandestine operator, who grabbed a few moments here and there, to encourage the striking miners. One problem faced by the station was that its normal listeners, used to a diet of discs, daft remarks and commercials, might think that the operation had lost its cool impartiality, if not its marbles. The authorities were naturally sympathetic, but as the Unknown Encourager packed up after a few

minutes, there was insufficient time to get a trace on his whereabouts. By the time that there was some hint as to his site, the operator had disappeared into the ether if not the local. Yet the complaints of the ILR station, though legitimate, had a hollow ring, for the original idea of local radio, launched some 20 years ago, included the availability of the airwaves to local opinions. Some ILR operations are little more than pale shadows of Radio One and, whilst doing a good job in local news and information (as for their advertisers), are not much interested in Vox Pop. I wrote to a local station, in the first bright days of legal CB, offering suggestions for a CB radio show, and did not even get a reply. No doubt 'the professionals' were horrified that 'unqualified amateurs' should burst forth into the frequencies.

Still, times are lean in commercial local radio, and there were gasps all round when a station (based in Leicester) went bust last year. It is estimated that no more than half the total number of ILR stations are making satisfactory profits, so the recent clamp-down on clandestine operators, sometimes known as 'pirates' may have something to do with the desire to corral the listening audience. However, one might as well try rowing a boat to Mars, without the benefit of sail or Marmite, seeing that (a) schools and colleges are turning out an electronically interested generation who do not want to just sit and listen, well not all the time; (b) long term unemployment for many people will prompt a desire for new kinds of participation in what's around: and (c) equipment is no longer as rare as the Great Auk. Transmitters are likely to be snatched, but like the heads of Medusa, keep growing in numbers and maybe awfulness.

During 1984, anyway, the Department of Trade and Industry secured new powers to Clobber The Clandestines. Since many enthusiasts operating so-called pirate stations on land were little more than hobbyists, the threat of a court case discouraged further activity. There was, on the whole, a great and some would say overdue Shutting Up of the British Clandestine Radio Scene in 1984, though one would like to know what has happened to all that spare electronic gear. It seems unlikely that this silence will be long secured (please don't take this as encouragement to get illegal equipment; I'm quoting history, that's all). The late and lamented US CB monthly, S9 Hobby Radio ran a long feature, most months, and it seemed that half the human race was promoting its own radio show, to the displeasure of the authorities. As far as the USA was concerned, the bounty of ex-army equipment, easily and legally purchased, then adapted by guys who were just too brainy for their own good, meant that getting a transmitter was no harder than buying a 1970 Buick. Commercial broadcasting itself began in the USA, before World War One, as radio hams tried new ideas in communication (without asking anyone if they could). You might say that progress has usually come from the ordinary folks. Not the experts and blokes with money to invest, though they're important to the human race also.

Thus, for Britons, pop radio as well as pirate radio began with the advent of Radio Caroline on Easter Sunday 1964, broadcasting from the MV Mi Amigo. Later, no doubt glad to be back on shore, some of the Caroline DJs earned an honest crust with the B8C and other radio enterprises. In 1967, The Marine Broadcasting Offences Act made life more difficult for the pirates, but the new Radio One, using similar brash DJ techniques really meant more to long-term success. Say what you will about the illegal operators, they often effect new techniques in pop radio. In any case, the law was not always a sharp instrument-well, not as sharp as the lawyers hired by the station operators. Take for example, the case thrown out of court when the prosecution failed to prove that

the DJ was involved in a live broadcast, though this was the basis of the case. Presumably, the judge knew something about recording tape. Whilst all the brouhaha on pop/pirate radio was in the air, during the 1970s, and on-shore listeners were collecting station ephemera, the magazine Wavelength began to run features about an phenomenon called interesting Citizens Band Radio. But as far as the authorities were concerned, CB was like Thomas Hobbes opinion of the human race, 'mean and brutal' thought (not as Hobbes thought the span of human life) short.

Although Radio Caroline today is hardly the pioneering force that it was in the 1960s, the interest in alternative forms of radio participation has flourished. London, like other cities, has had a lot of unofficial stations, coming on air at varying times, though usually with some kind of advance off- the- cuff information to the regular following. Nor has this spread of naughty input/ output been mere record shuffling and avoidance of copyright payments. In many cases, the transmissions have offered really only available opportunity to foreign language or ethnic groups, who really deserve far wider access to 'what's going' in radio and TV.

Belatedly, the government has recognized the need to provide legal facilities for community stations, using low-power transmitters. All those excuses about the over-crowded radio spectrum, well-known to anyone who campaigned for CB, no longer seem to apply. But we may have to wait until 1990 before the specialist stations (e.g. those dedicated entirely to jazz, country and western, etc) get on the air. Yet, as long ago as 1980, a reporter for an Australian CB magazine was enthusiastically noting the lowpowered transmitter business in Japan. Super mini' stations used frequencies in the Japanese FM band (76 to 90MHz) and had a maximum range of around 150 metres. As the power (output) was well below government regulation, anyone could buy and use one of these stations, at a cost of around £200-£300. As one might expect, the initiative of the original maker in the hi-fi terrain known as Akihabara, resulted in a flood of imitations. Hooked up to a domestic stereo system, the transmitters enabled enthusiasts to organize their own 'apartment block' radio show. One wonders as to the extent to which Japan's world-wide success in electronics is due to channelling the interest of young aspiring radio users into something that is legal-and cheap.

Although this writer has not been to this hi-fi homeland on the outskirts of Tokyo, where the concept was born, it must be said that the world has as many second and third/forth/ fifth-hand transmitters as secondhand cars these days. Clandestine radio flourishes in France and elsewhere in Europe, whilst the pirates even moved into TV in the Netherlands. So there is a sort of common



Home of Radio Caroline - The Ross Revenge

market in transmitters. It's said that anyone wanting to get into pirate radio and spending more than £200 on his first rig, needs his head read. Maybe he needs his head read anyway.

Even though there is a temporary full in the well-over-a-hundred illegal operators in Britain, the activities of two well-known and commercially oriented pirate stations, Radio Jackie (in south London) and Laser (offshore) were highlighted in a Times feature in January. How come, one might ask, that the honest toilers of London and all prefer the pirate to the highly respectable and legal ILR station? Is it all down to human folly, and the fact that innovation and traditional moneymaking do not easily mix? Are there too many accountants in the radio business? Like the poor, alas, accountants will always be with us.

Some of the prospects - in which CBers may legally share - are outlined in Not the BBC/IBA: The Case for published Community Radio bv Comedia Publishing Group, 9 Poland Street, London, W1 3DG (£1.95 paperback, ISBN 0 906890 18 7). Indeed, the book, originally published in 1982, looks at the way that community radio has been formulated in Britain and the way that community radio (public access) stations might be set up.

It is a fascinating prospect, developing the concept of true Citizens Radio, people making their own programmes and broadcasting them. True, there may be a lack of 'BBC standards', but, like the local CB Club or parish magazine, you don't have to make that kind of comparison. Technical perfection is one thing, but true democracy may at times be something else. In any case, people soon learn - as public access TV in the USA has shown. The tape recording clubs of the 1960s and 1970s (see my booklet, A Tape Recorder in Fleet Street, available £1 post free from the writer at 29 West Leake Road, East Leake, Loughborough, Leics. LE12 6LJ) demonstrated that enthusiasts were not lost when it came to acceptable recording and editing of reel-toreel tapes.

In talking to CB enthusiasts from various countries over the years, I have been impressed by their sincerity in wanting to make the medium work and to develop. Maybe, after all the arguments of the last five years, enthusiasts today have to think of the development stage. If CB may get middle-aged, in plus-fours after the lean jeans, maybe that won't be so bad. For in the wider concept of Citizens in Radio Communication, there should always be some better prospect just ahead, to which we are called to work.



Ladies and gentlemen, we proudly introduce our new regular trucking correspondent — the one and only — Big T!

i Readers, let me introduce myself. The handle is Big T (personal Terry), and I shall be writing a column each month in place of Gismo who has

had to stop writing due to pressure of work. First, a little about myself. I am 44 years old, married to Eileen (Dragonfly) and I have five sons aged from 13 to 21. I live in the county of Shropshire and have been pushing the big wheels since I was old enough (24 years). My introduction to CB came in 1982 and I enjoy all aspects of it but I must admit that I get an awful lot of pleasure from DXing and can be found most weekends on top of some local hill.

At the moment I drive a Scania with a 40ft tautliner, making multiple drops all over the country. I hope very much to make my column of interest to fellow truckers and all CB enthusiasts. For the benefit of non truckers, let me give you a quick run-down of a trucker's lot. My day starts about 5.30 am, leaving Telford for my first drop which can be up to 200 miles down the road. The maximum working day is 12½ hours of which eight are spent driving, one and a half hour meal-breaks and three hours unloading. These times as you know, are now rigidly enforced by the use of the tachograph.

# Nights

On average, I spend two nights away from home each week, but many of my fellow truckers spend the full five nights out. For being away from home, we get a night-out allowance and this varies from firm to firm from as low as £8 but with an average of £12. Most of the lads are back loaded by their firms; I am more fortunate running home empty. On average we spend ten hours per week waiting to be unloaded.

Most of the modern trucks are fitted with a bed, night heater, electric windows, heated seats and mirrors; certainly a big improvement from the old days. Well, I hope I have enlightened you a little on trucking and next time that you see a trucker trying to put a 50ft motor into a 40ft gap, I hope you will realise what a skillful job it is.

Each month in my column I would like to feature a cafe of the month. This month I have picked Monts Transport Cafe and CB Centre in Devon. The cafe is situated eight miles south of Exeter just off the A38 in a village called Liverton. The proprietors are Vernon and Jean Oxley (Grey Ghost and Mystery Lady) and the food is first class with home-made pies and cakes always available. Vern and Jean and their staff are very friendly and you are always welcomed with a smile. The cafe opens for breakfast at 6.30 am and closes at 6.00 pm with a half-day on Saturdays. Overnight accommodation and parking facilities for sleeper cabs is available - and a good selection of CB equipment is for sale in the shop at the rear of the cafe. Telephone number is Bickington 333 or give Vern a shout on channel 19.

# Channel 19

Talking about channel 19 brings me to the most controversial of subjects, what is channel 19 for? Is it a mobile channel, a truckers' channel or is it a breaking channel? During the last few weeks I have been going out of my way to see what my fellow truckers think and about 80% of the lads and ladies (there are a few lady truckers) I have spoken to consider it to be the mobile breaking channel and agree once you have got your copy, get off it. Leave it clear for the 10-13s and 10-33s by keeping it clear. A trucker's life could be saved and who knows? It could be yours. Of course, there are still the breakers who will insist on chatting to their mates who are 100 yards behind them, but that's lifel

During my travels on our motorways, I find the biggest complaint seems to be the miles and miles of roadworks. We all know the motorways must be repaired but how often do you travel, through two miles of coned-off carriageway without seeing any signs at all of workmen? This happens day after day. Why?

Next my own pet moan — caravans on the motorway. Most seem intent on killing themselves or, worst still, mel Many of them travel in the granny lane then, all at once, decide to pull out. Most do not have a rear view mirror capable of seeing behind them so, come on you smokies, *please* do something about this. It is an offence to drive a HGV with even a cracked rearview mirror.

# Monitors

Also each month I would like to give a well-deserved mention to one of our many monitors — this month I have chosen Charlie 3 of Swindon. Charlie 3 (Channel 3) are a group of lads and ladies who give many hours each day to help anyone in and around the Swindon area. I have been to many towns but they are by far the best heard to date. Whether it be directions or a modulation/poundage check, each is dealt with in a first-class manner. Power to your elbows, Charlie, and many, many thanks from myself and, I am sure, many of my fellow drivers.

This week I received an invitation from the TSW 08 (Harvey Wallbanger) to their eyeball in Torquay on the 23/24th November, 1985. This will again be held at the Warren Park Hotel, Torquay. The price will be £13.50 per person to include a four-course dinner, entertainment and bed and breakfast. I could not make it last year (no holidays left), but am hoping for better luck this year. Any club secretaries reading this column who would like to send me any information of their clubs' forthcoming events, I will do my best to give them a mention.

Hopefully, some of you may have found my first attempt of interest. Any comments or criticisms from all you readers would be appreciated. Until next month, stay lucky.

# 

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More names and addresses from the QSL scene with David Shepherdson

> ou know, I must be getting better or something, I haven't been making so many mistakes of late, but, in the May issue I made up for this by

made up for this by dropping a real clanger! My apologies go to Anne McArthur and Lionel, not Steve as I said then. Anyway, mention of Anne brings me nicely into what I promised last month, a roundup of some of the charitable works that many of you have been doing this year. Anne is the Charities Officer for the RDX Club up there in Glasgow and, by collecting your old postage stamps, foreign coins and even Christmas cards, has raised enough money to buy a new lifeboat for the RNLI, to help with the purchase and training of Guide Dogs for the Blind and many other worthwhile causes. So any of your old used postage stamps and foreign coins that you have left after your summer holidays will be greatly appreciated by Anne on behalf of these charities.

Moving on now, a mention for Wolfman Jack and his friends who recently raised over £400 for a Special Baby Care Unit at Derby City Hospital, and from Halifax I've heard from Rick and Helen (Unicorn and Sexy Eyes) who, with other CBers, have raised a staggering £3000 through various fund-raising events including three mass eyeballs! This money was presented by the Friends of Turner Avenue South Hostel (FOTASH) to the Hostel to buy and convert a mini-bus for tha patients. Rick and Helen would like to thank all the breakers who



helped to make this possible. Well done to you all!

Looking ahead a bit, over in Southport there is a Maternity Hospital's Baby Unit that has been adopted by the Tango Papa Club of Southport. This is in order to raise funds to buy special equipment for the Unit that is needed urgently. The money raised during the year will be presented to the Hospital at a mass eyeball in May 1986, hopefully by either a local personality or famous celebrity. Anyway, that's to crown a full year of fundraising, but I'll keep you up to date on this event a little nearer the time, so keep an eye on the Forthcoming Events slot.

Right, a few names, addresses and cards here from all over the place that have found their way to me. Remember, if you would like a mention, drop me a line with one or two of your cards and ask. I usually manage most of those I receive, but please do not ask for a specific issue, as I cannot promise just exactly when I'll be able to slip you in.

From Davy (Delta Charlie 22) of Leith comes a very Scottish card, whilst Tony (Penny Black) sends me some of his new series cards from Farnham, From Oldham, Terry (Rubber Band) lets me know he has one of the last Wizard-designed cards and would love to QSL any friends who have cards designed by Wizard as he wishes to get the full set. Any help anyone? Alex (The Wizard) retired due to ill health earlier this year. From Dundee, Martin (Flagship) drops me a line asking for a mention and for advice on how to reply to cards without a return address on. Well, how can you? If you do not put your return address on your own cards, then how can you expect to get any replies? Always put your AD on your cards, and I also suggest you do the same with your envelopes too. This way if the Post Office can not deliver for any reason, they can return them to you unopened. Talking about the Post Office, I've heard a rumour that we can expect an increase in the cost of posting out our QSL packages,

so remember to check the weights of your packs. At the time of writing, a 17p or 13p stamp only covers the first 60grs (about 2 oz) in the UK, whereas overseas costs are very different and varied.

From Chester-le-Street comes a few cards from George (Green Giant) who asks for a mention while sending some personal cards with a few assorted club ones too. Last one for just now comes from Andy (The Trooper) who writes that he really likes to read the column and would appreciate a mention. Regular readers of this column may remember the good natured (?) badinage in the past between myself (as a supporter of the Rebel Alliance) and Nick (Tie Fighter Club) who favoured the Imperial Tyranny. Well, I've just received a letter from a new Imperial Supporter who lets me know that Nick has passed the Club on due to pressures of work to Andy, the new TF 001. Andy has asked me to thank Nick for the founding and running of the TF Club up to now, and also he asks if any TF member reading this would think about sending Andy some of your cards as he has none of these to pass out to new members. Membership of the Tie Fighters costs £5 and five personal QSL cards (UK) for which you get your TF No, certificate, club stamp, 10 TF Club cards, exchange cards and invites, DX info, roster, club pen and extras as available. But do please remember there is now a new address.

Another club to change hands and addresses is the Mermaid DX and QSL Club of Denmark. For various reasons Per Kim, the founder, has passed the club on to Bob Durrant of 20 Beresford St, Shildon, Co Durham as of the 1 st of June 1985. Any enquiries should now be sent to Bob, with a SASE of course, so he can reply quickly. So, best of luck to you both with your new ventures.

A note in from the Roman City Club of Chester-le-Street to the effect that if any of the first 400 members who have not yet received a membership certificate would like to drop Guy (RC001) a line with SASE, he will be very happy to send you one. Also he now has club stamps available at £3 each (UK post paid). To join this club costs a mere five personal QSL cards and a SASE (or \$2 (US) for overseas). In return, you get your RC No, ID card, seals, swop cards and invites and, of course, the certificate as mentioned above. A request from the Bradford QSL Club for a mention now. Their club was started in September 1983, primarily to provide the local members with a PO Box and they have their own QSL Cards. If you want to QSL them they will be happy to return, or if you want info on how to join, although I have no info as to whether or not membership is available to anyone outside Bradford, drop them a line.

"HC' Club/Printer in Northampton. Sorry Fred, didn't know you were offering a design and print service. Fred has also asked me to point out that there is no connection between his club and the Happy Cobblers and would the heavies please stop calling! A lot of people have been asking about the Whiskey Delta Charlie of Wakefield in the past. I've had a letter from Tom (Hoplite), the PRO for the WDC who tells me there has been a big change round and it is now back in full swing.

VE

Greetings from: BRADFORD DISTRICT

89 Derwent Street, Blackhill, Con-

# QSL Club Addresses:

Bradford District DX/QSL PO Box 29, Bradford. Firebirds OSL Swap Hastings Castle Headache Control \*Mermaid DX QSL Club Roman City DX QSL Club \*Tie Fighter DX Group. Whiskey Delta X-Ray Whiskey Delta Charlie Oragonrider One \* New Addresses

PO Box 9, Brighton, East Sussex. PO Box 75, Hastings, East Sussex. PO Box 105, Northampton. Beresford St, Shildon, Co 5 Ernest Terrace, Chester-le-Street, 20 54c Grampian Road, Torry, Aber-Co Durham deen, Scotland. PO Box 284, Guernsey, Channel Box 71, Wakefield, West Isles. c/o DR Club, 3 Tam Villas, Cowpasture Rd, likley, West Yorkshire. QSL Services Addresses: Currie Card Printers Ray (POMA UK Rep) When writing to any of the above Clubs or services, always enclose a suitable SAE for speedy return of infector. Thanks it When writing to any of the above clubs or services, always enclose a suitable SAE for speedy return of info etc. Thanks, it really doae help

Roman City Dx Q&L Club

Uni No:

Signed.

MEMBERSHIP CERTIFICATE

This is to certify that

ROMAN CITY DX-OSL CLUB

Details from the club PO Box. News in

from the previously trouble-stricken

Whiskey Delta X-Ray Club of Guernsey

to the effect that a new president and

committee have taken over the running

of the club. President Martyn and the

committee ask me to pass on that they

are very sorry for any upset or un-

happiness caused in the past and if

any breaker who has any moans or

groans would care to get in touch with

him, he promises to do his best to sort

things out amicably. Membership now

costs £5 and five cards, for which you

get your WDX unit No, ID card (and

XYL free}, certificate, 10 club cards, log sheet, decals, 'Q' code, DX tips,

club rules, roster, newsletter, exchange-

cards and invites. One last point:

membership of the club is only open to

over-16's.

Date

In the past I've asked for info on various clubs that people have written to without any replies or who have had their letters returned marked "Not Known", and this month is no different. If one of the following is your club, and it is still going, or it has in fact closed down, please do let me know so I can pass on some up-to-date info to many interested readers. The list this month include the British Airways of Camberley. as previously mentioned in these pages. Lima Mike of Chinnor, the 3 Countries of Brackley and Metro City of Birmingham. I've also had a few asking about the Lima Whiskey of Hertford and, surprisingly, as this last pair have always seemed well established, Saxon Skippers of Fareham and the SWB of Bolton. As I said, if one of the above is your club and it is still being run, please do get in touch so I can set the records straight.

Updates on previous requests for info include a request from Fred of the Headache Control Club of Northampton asking me to point out that the troubled "HC" Printers mentioned in June's issue was not Headache Control's Merlin Design Service, but another

A question I'd like to ask is has anyone had any contact with Jorgen Hansen of the Toucan Club, Venezuela this year? He wrote at the end of 1984 to say he would be in England and Europe during April/May and would be visiting many friends and clubs whilst here. A club in London had offered lodging for Jorgen and Edith, but they never appeared. I and several other club presidents were expecting them and a club president in Norway even waited for hours at the airport there for them and none of us have either seen or heard from them at all! Can anyone shed any light on this please?

iite Spirit

OX 37

DX QSL CLUB

WYORKSHIRE

100%

PO. BOX 29 BRADFORD

BD12 8DW

ENGLAND

38 88s

Right, some more names and then quite a full Forthcoming Events slot. From Doncaster, Norman (Eyesiah) asks for a mention, from Zimbabwe a letter from Richard (T R/OF 203) who wants a mention and comments on these pages being the best in the mag (and who am I to disagree) and will swop 1-4-1 with anyone who wants a QSL from Zimbabwe.

From Jim (Union Jack), a promise to reply 100% so if you want to QSL him, he's in Grimsby, while from Lerwick up in Shetland writes Mike (White Spirit) who has a nice set of very personalised Viking Radio Cards. Mike also collects flags and pennants. From mainland Scotland comes a bundle from Robert (Happy Duck) of the Legal 40 Club with an interesting Currie card, whilst from Cheltenham, Bill (Newspaper Boy) and son "Oil Can" drop me a line for a quickie. Last, but not least, Bob Norton (Super Chicken) of Ulysses in the States writes a bit of gen about his station set up which includes a Uniden Rig and Starduster aerial.

Whickey Belta Xray International Dx Gol

73's-51's 100% QSL JU,

QSL Eyeball Addresses:

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116, Derby.

Delta Charlie 2.2

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DINGURON SCOTLAND

UDTH

Lincoln HAMFEST

Romeo Victor Eyeball

Sierra Foxtrot Eyeball

Country Club Eyeball

Hastings POMA meet

Group

Contact Ian (Stannaker), 13 Swift

The next is on the same day and is the Sierra Foxtrot CB Club's Mass Eyeball and Sports Day held at Markeaton Park, Derby starting at 10.00. Parking and admission free and with sports, fun, raffles, prizes and all sorts of fund-raising events throughout the day going on, it should be another good one. All funds raised from this, and other events are in support of the Special Baby Care Unit at City Hospital, Derby (as mentioned earlier).

The Country CB Club of Scar-borough's Giant Eyeball weekend is being held at South Bay Holiday Village. This one costs £24 for the weekend, but it does include a caravan for the weekend, per family. It runs over the weekend of 27th-30th September and includes discos, games, displays, a trader's market and sideshows on the Saturday.

The last is the Hastings International POMA Card Swap meet at the Queens Hotel, Harold Place, Hastings on Saturday and Sunday 5th and 6th October. Times are (Sat) 9 to 4, and (Sun) 9 to 1. Entry fee per day is 50p but, if booked in advance, it drops to 30p per day. However, for anyone travelling a fair way, there is an all-inclusive price which includes entry and overnight accommodation. This is £14.50 but



FROM 73'S BRAVC 51'S 88'9 TO STATION ..... USP.( 38 SKIP( ġ. SWAP() WATTS. AM / FM/USB/LSB SIGNAL LLOYD. LIME DIRECT() ANDY Q.S.L. NAME. 100% MY RX/TX. ANT: PADIO. CH. EYEBALL() SHO. THE **«TROOPER»** C19851

please check with the Club to confirm price and availability before sending money for this. POMA card holders are most welcome, and the clubs connected with this meeting include Firebirds (UK), Hastings Castle (UK), Kassdragers, Zwaantje, Old Dutch Fisherman, Golden Wings and Happy World (all Holland).

Anyway, that's it once more. For a mention don't forget, you'll have a better chance with a card or two with your request, and not a piece of paper torn from a sheet. That's it, right out of room again, catch you next month.

75, Hastings, E. Sussex There are quite a few varied events around the country during this next few weeks, so I'll try to fit in as much about each as possible. Okay, in date order, the first is the Lincoln HAMFEST on September 8th at the Lincolnshire Showground on the A15 Scunthorpe Road from 10.30 to 5.30. Admission is 50p which includes a lucky programme for a portable colour TV draw. It's a family day out and a partial list of attractions include trade stands, a fairground, model aircraft, flea market and a talk-in by members of the West Lincs Raynet Group. Next is Romeo Victor CB Radio DX Group's Eyeball held at the Heolddu Leisure Centre, Bargoed, Mid Glamorgan, Wales from 1.00 to 6.00. Admission to the eyeball is 50p, and to the eveball and the evening's live entertainment is £2, but by ticket only, so please apply to the Secretary if interested. All proceeds from this eyeball go to charity.

Gardens, St Giles, Lincoln, Contact The Secretary, PO Box 7, Bargoed, Mid Glarn. Contact Mrs L. Clements, PO Box QSLer Addresses: Davy (Delta Charlie 2.2) Contact Secretary, PO Box 36, Scarborough. Contact HC21, Secretary, PO Box Tony (Penny Black) Terry (Rubber Band) Martin (Flagship) 42 Sandport St. Leith, Edinburgh, George /Green Sianty Scotland TK21, PO Box 5, Farnham Surrey. PO Box 94, Oldham, Láiles Andy (Trooper) 5 Finlow Tenace, Dundee, Scotland. Norman (Eyesiah) 26 High Barnes, Great Lumley, Chester-le-Street. Richard (Tango Romeo) Chester-le-Street. PO Box 238, Stoka-on-Trent, Staffs. PO Box 89, Askern, Doncaster, Jim (Union Jack) South Vorks. Mike (White Spirit) PO Box: 111'9, Gweru, Zimbabwe. Robert (Happy Duck) South Africa. South Amca. 76 Boulevard Ave, Grimsby. PO Box 31, Lerwick, Shetland Bill (Newspaper Boy & Oil Canj Bob (Super Chicken) Isles. PO Box 12, Alloa, Clack's Scotland. 4 Lipson Road, Hesterway, Chelten Paul (Wolfman Jack) Rick & Helen (Unicorn) Anne (RDX Charities) ham, Glos. Norton Road 1, Ulysses, PA 16948. USA. PO Box 116, Derby George (Tango Papa PR) PO Box 116, Derby. PO Box 7, Halifax, West Vorkshire. PO 50x 5, Stornoway, Isle of Lewis, Scotland. (Eyeball 86), PO 8ox 13, Southport.

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ne of the first things you learn when interviewing anyone who has a keen interest in the subject at hand, is that you might find it hard to get a word

in edgeways and you most certainly are not going to get to ask all of your questions in the allocated time. So went my recent interview with John Butcher MP, Parliamentary Under-Secretary of State for Industry. The man ultimately responsible for the future of the CB service.

In the manner of a poacher turned gamekeeper, Mr Butcher was among the earliest Parliamentary suporters of the campaign for a legal CB facility and can speak knowledgeably on all aspects of the hobby, for which he retains a fond affection. The irony of his present position is by no means lost on him, as became apparent as soon as I asked him whether the present CB service was the one for which he had campaigned and whether he might have done things differently, given his unique experience.

"When legal CB was introduced," he said. "The Home Office, who were then responsible for the radio spectrum. were faced with the difficult task of introducing a completely new facility, at short order, in such a way as to make it workable, without causing incon-venience to others. That they made the right choice in specifying the use of FM has been borne out by the recent CEPT decision to standardise CB services throughout Europe, using this mode. At the time the UK CB service was being planned, the lower half of the 27 MHz band was in use by other services and a speedy alternative had to be found. It will take until at least 1987 for the lower half of the band to be cleared, so that we may share in the common standard, by which time, as recent European moves have shown, we will have a facility which is the envy of the world."

He was equally positive, though less optimistic, about the future of AM and SSB.

"Although many CBers have a preference for either AM or SSB," he said. "The Government has a responsibility

# Keith Townsend talks to John Butcher MP

to minimise interference to other services. FM has proved far less likely to cause interference than either of the other options and, since future European standardisation will be FM-based, future British development must follow suit"

I put it to him that when CEPT frequencies are introduced, the small band of frequencies between 27.405 and 27.601Mhz might also be included, in order to provide continuous CB coverage throughout the 27MHz band but he was less than enthusiastic.

"This part of the band is currently occupied by a number of services," he replied. "Including old people's emergency alarms and the inconvenience to others which its clearance would

"It will take until at least 1987 for the lower half of the band to be cleared, so that we may share in the common standard..."

involve far outweighs the slight advantage which CBers would gain."

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Mr Butcher became far more positive as soon as we began to discuss the age-old problem of the abuse to which CB is often subject I put it to him that the present Government had promised us law and order, yet here was an area in which many people felt they had been let down.

"The likelihood of abuse of any form of personal radio service was pointed out to me many times during the CB campaign," he said. "And it is an area about which we are very concerned. Indeed, a series of campaigns are being conducted in several areas to combat both licence abuse and evasion. These will be followed by further, similar exercises, which will draw on the experience already gained.

"The Department is currently examining the work of the Radio Investigation Service with a view to increasing the effectiveness of its law enforcement activities and the level of enforcement within CB, currently running at about 9% of RIS man-hours, has to be decided in the light of available resources. Obviously, radio abuse which affects safety of life and jobs must be given a high priority but so far as CB is concerned, we have received a number of helpful suggestions from user groups and CBers, themselves, can be most helpful in eradicating abuse.

"We are aware of the concern of the majority of users at the deliberate abuse of CB, caused by a small minority but obtaining sufficient evidence for a successful prosecution can be very difficult and we welcome the assistance of organised CB groups in accumulating evidence. To establish prosecution cases we need information on detes and times of operation, as well as content of transmission. We also need names and addresses of offenders. This is one way that CBers can be of real help. Another, of course, is for individual users to be responsible and disciplined in their own use of the service, in order to raise the overal! standard of operation. You can each do most be setting an example to others.

The Minister was, perhaps understandably, non-committal when esked for further details of the RIS campaign. With a wry smile, he suggested that there would be little point in having such a cempaign if everyone knew where and when it was to take place. We can keep a secret, Mr B. Honestly.

Licence enforcement wes the theme of enother point raised during the interview. For some months now there have been suggestions of an Order prohibiting the sale and posession of illicit CB rigs, under new powers contained in the Telecommunications Act, 1984. Mr Butcher confirmed that such an Order was, in fact, in the process of preparation, saying: "We are concerned about the availability for sale of CB radios, the installation and use of which is illegal. To combat this, an order restricting the sale of illegal CB sets, including both AM equipment and FM sets which do not meet either the present specification, or the new CEPT proposals, will be laid before Parliament sometime later in the year.

"Such an order is also likely to prohibit the posession of these sets. For similar reasons, the scheme whereby illegal AM sets can be converted to operate legally with FM, on payment of a fee to HM Customs and Excise, was withdrawn on 30th June. All of these measures should help to reduce the use of illegal CB equipment."

Mr Butcher then went on to quote a few figures on licensing and interference complaints.

"During 1984 we received some 1,000 complaints about the abuse of CB licence terms and conditions," he said. "Whilst the number of licences in force had declined from some 310,000 at the end of 1982, to around 225,000 at the end of 1983, and again to around 180,000 by the end of 1984 and we believe that there is considerable unlicensed use of CB. Prosecutions for the same three year period appear to demonstrate a definite swing towards the use of more and more FM radios, with the number of prosecutions for the use of illegal sets falling from



2,274 in 1982, to 1,379 in 1983 and 940 in 1984, whilst those for illegal use of FM equipment have risen from just 25 to 220 over the same period."

Ever since the CB specifications were first drafted there have been complaints from breakers that the restrictions on the types of aerial permitted and the way in which they could be used were grossly unfair. I asked Mr Butcher why, in his department's view, such strict regulations were necessary. I reckon his long and comprehensive reply will evoke discussion for a long time to come.

"The CB service has always been intended as a local communication facility." he said. "For those interested in more sophisticated applications, communication to specific people, long distance communications, or experimenting in radio technology, other facilities exist. For example, amateur and private mobile radio.

"Another prime consideration was that CB would be available to people who were, for the most part, not technically minded. It was, therefore, important to ensure that interference potential was restricted by virtue of the equipment itself, rather than by relying on the technical knowledge of the operators.

"We also had to consider the fact that CB equipment would be installed in built-up areas, as well as in the



Mr John Butcher MP

country and would often be very close to home entertainment equipment. This is unlike PMR, whose antennas are, for the most part, sited well away from residential areas. It was, and still remains, necessary to make sure that the CB service be used without causing undue problems for others.

At 27 MHz, the likely communication ranges for given effective radiated powers were assessed, together with the potential for causing interference to television reception, particularly by direct breakthrough. It was concluded that an ERP of between 2 and 4 watts would permit a reasonable compromise between, on the one hand, the need for reasonable communication range and, on the other, avoid annoying interference to nearby TV sets. Because it would have been unreasonable to expect non-technical CB users to measure ERP, it was decided to limit transmitter power and to specify an antenna which did not offer a gain in relation to the power of the transmitter.

"Indeed, experience has shown that many of the better quality antennas which meet the specification have such small losses in their loading coils that a power level approaching unity with that of the radio can easily be achieved.

"People living in high-rise flats would get far greater ranges and their equipment would have the potential for causing a wider circle of interference

"Besides working on moves at 27MHz, we must also ensure that safety of life services on the harmonics of the new frequencies are not jeapardised."

to domestic equipment So, it seemed simplest to require transmitted power to be reduced for antennas sited more than 7 metres above the ground. We understand the oft-repeated criticism that this regulation takes no account of local topography but it would be impossible to draft a workable regulation to take account of every individual circumstances. Neither were transmissions at 27 MHz our only consideration.

"It is a simple fact of life that in any radio transmission some energy will be radiated on frequencies other than that intended and it is important to keep these harmonic radiations to the lowest practical level in order that emergency service and civil aviation communications, which operate at frequencies harmonically related to CB, would not be affected. It is for the same reason that we decided to prohibit the use of dipole antennas which, although offering an acceptable ERP at 27 MHz, also permit an unacceptable level of radiation at 54 MHz, at which



frequency they act as a quarter wave, and at other harmonic frequencies."

Asked about Britain's intention to adopt CEPT proposals, Mr Butcher reiterated his earlier assertion that these could not be introduced before 1987. He told me: "A number of services are currently occupying the CEPT CB band, including on-site paging, telemetry and model control. For each of these the Government must find an acceptable alternative frequency and this is not easy in a cramped radio spectrum, particularly when a block of channels is required.

"Re-locating these services obviously involves users in either modifying equipment or changing it altogether and, since many radio installations are very costly, we would normally plan a changeover period of several years. However, because the Government is keen to introduce the CEPT CB service much earlier than would normally be contemplated, unusual problems have been thrown up. In this instance the, Department must work particularly hard to minimise the changes, so that they can be put into effect quickly.

"One way in which this is being done is to try to accommodate some of the displaced services within reasonable tuning distance of 27 MHz, but you will understand that if it is difficult finding alternative frequencies under normal circumstances, it is even harder to free sufficient space when the acceptable frequency range is limited.

"To illustrate these problems, take on-site pagers, for example. This is a service where the safety of life must be considered, since much of the equipment is used in hospital and the various Health Authorities would be strongly opposed to costly changes. Equipment manufacturers are, not unnaturally, looking for an expansion of channels in any forthcoming change and in making a move from the existing allocation there are technical considerations in the tuning range above 27 MHz where the pagers cannot operate across a range of frequencies because of TV interference. These are only a few of the problems we are grappling with in order to accommodate CEPT CB."

On the subject of possible harmonic radiation from the new CB service, Mr Butcher said: "Besides working on moves at 27 MHz, we must also ensure that safety of life services on the harmonics of the new frequencies are not jeopardised. Whilst the CEPT specification is generally more stringent than MPT 1320 for spurious output, it does allow slightly higher output at some harmonically related frequencies. Because of this, it may be necessary to restrict the use of some CEPT CB channels at first, until the vulnerable emergency services can be moved out of the way."

In a more reflective mood, he continued: "It is unfortunate that many CBers think of interference only in terms of TV reception and are unaware that their sets put out signals on frequencies other than 27 MHz. It is easy to understand TV interference when a neighbour is complaining but the possibility of harmonic interference is less readily appreciated.

"To help avoid these problems it is important that CBers should operate within the terms of their licences and that they be ready to comply with any

"CBers can be assured that both the DTI and the RIS will do everything in their power to create a proper regard for the CB service..."

temporary channel restrictions which we may be obliged to impose. Vital emergency services have been disrupted many times by CBers operating will illegal equipment, who were blissfully unaware of the problems they were causing."

I asked Mr Butcher whether he was happy with present licensing arrangements and was interested to learn that these were to be reviewed later in the year.

year. "The current method of charging £10 to licence three sets has been in force since 1981", he said. "But it would seem that all major CB organisations now favour a system under which each set was individually licensed and this suggestion, together with a number of others, will be considered then."

We then moved on to the thorny problem of travelling abroad with a CB rig. Mr Butcher said: "The Department is most unhappy that travellers should encounter any difficulty in taking their sets abroad. Where a CB set is permanently installed in a vehicle, other European countries will usually allow it to be kept in situ, provided that its owner undertakes not to use it during his visit.

"The European Commission is trying to get this policy established in all of the EEC countries but it is advisable for people travelling on the continent to check the position in advance with the tourist authorities of the countries they plan to visit. At present British citizens are not permitted to have installed any CB equipment which does not comply with the current British specifications but when an order to control AM and SSB equipment is laid later in the year, this ruling will probably be amended to take account of CB sets which comply with the CEPT recommendation. though the installation and use of such sets will remain an offence until such time as licences governing their use have been issued.

One problem which seemed to be causing the Minister serious concern was the danger of electrocution, which had been highlighted in recent Press reports. As he pointed out, "There have been incidents where radio users including CBers, have been killed whilst erecting antennas which have touched overhead power lines and we are also aware of incidences of danger at railway level crossings where long antennas might come into contact with power cables. This is a most unhappy situation and the CB Code of Practice is being amended to include warning of such dangers. I strongly advise all radio users to exercise extreme care when, erecting antennas in the vicinity of overhead cables, which may be carrying upwards of 33,000 Volts.

Unfortunately, Government Ministers are not renowned for having the most flexible of schedules and, long before I could get answers to all the questions I might have asked, Mr Butcher was hustled away to another engagement, Before leaving, he offered his own cheerful thoughts on three and a half years of legal CB.

"We expect to see a more active approach to the whole subject of CB radio and a more uniform enforcement policy. CB has come of age. It is a permanent and respected facility which is now part of the national scene. Unfortunately it is blighted by a minority of wallies and bucketmouths and we intend to take steps to counter this problem. We will report on this campaign in the fullness of time.

"CBers can be assured that both the DTI and the RIS will do everything in their power to create a proper regard for the CB service and to maintain and improva the relationships which we have been able to establish with the majority of the CB community."





WANTED: A portable hand-held CB, any make, 40-channel, 4 watts. Working or not working. Apply in writing to: R. Tarbin, 17 Stanley Road, Halstead, Essex.

TWO metre amateur receiver, search, nine, £43.50p. Communications receiver 0.5-30MHz Sony ICF 2001 portable stereo radio cassette £65. Portable 4channel CB, hand-held £40. Power pack £10. Two SWR meters £3 each. M De-Wynter, 2 Woodside, Wimbledon, London SW19 7AR. 01-946 2967.

FOR SALE: Zetagi 200 watt AM/SSB/FM mains linear, as new, £50 ono. Telephone 01-993 3208.

ELECTRONICS enthusiast's clearout. Colt 210 CB £15. Large boxfull of electronic components, resistors, capacitors, transistors etc. Ideal starting pack for the newcomer to electronics. Sent for £10 post free (weighs over 3kgl). K Bailey, 40 Seymour Close, Selly Park, Birmingham.

WANTED: Magpie Autoscan 5000 with makers' crystal filter modification and users' handbook. State serial number. Telephone 0934-513601.

I COLLECT eyeball cards as a hobby. If you have any you do not want, please send them to me so I can keep my hobby going. Robert Peters, 47 High-grove Road, Dagenham, Essex.

EXCHANGE hi-fi, value £300, for 934MHz transceiver, antenna and, if possible rotator. Hi-fi is all in immaculate nick. Phone Bristol 513613 (office hours) or 519347 (evenings). Ask for Gary.

SPEECH processor, Zenith model P202, cost £34 will accept £24. Turner mic XT3, new, £25. Phone 0283-221870.

HY-GAIN V 900 channel AM/FM/USB/ LSB with professional modification including switchable alpha channels, roger bleep and variable KC shift, £100. Rama frequency counter £25. Will swap Hy-gain for Superstar 360 FM or Cobra 148 Mk 2 or 3. Contact Steve or Paul on 01-961 4659.

WANTED: Magpie Autoscan 5000, your price paid. Please write with details. Peter Waring, 117 Chapel Street, Dukinfield, Cheshire, Reply guaranteed. SELL Grandstand dual band equipment

27MHz and 934MHz. Cost £399.95, sell for £250. Murphy 27MHz mains base station, new condition, good working order, £30. Protel base-microphone, £15. Echo chamber, wired, suit Murphy, £15. Telephone 0474-872743.

COLT Excalibur Model 1200, AM/FM/ SSB, £145, 120 channel. CB Magazines April 1983 to April 1985, £5. Teardrop mike £25. Phone 0279-444575.

FOR SALE: Hy-gain V 480 channel CB radio, absolute mint condition £90. Leson DT251 base microphone £30. K40 speech processor, absolute mint condition, never used £30. K40 mobile

antenna, boxed, good condition £25. Ham International Hypower % wave base antenna, mint, boxed, £40. Yaesu FRG7000 communications receiver, £280. ATU for same £35. 0478-2548 after 5pm.

WANTED: Service and operating manual for Icom 290E multimode 2m RX/TX urgently. Also frequency counter, 5-500MHz or to suit above. Telephone 0902 735043.

VIC 20 colour microcomputer plus various software, cassette datarecorder, instruction manual and books. Only £80 or will exchange for any good, working hand-held/base rig. Call Franny on 01-361-8221; he will put you in touch with me, Dustbin.

YORK 863 CB 40 channel, good condition £19.99, CB aerial boot mount, new £8.99. Telephone Bicester 246389.

A new service for readers wanting to buy, sell or exchange equipment, and for obtaining information (i.e. circuit diagrams, handbooks atc.) that other readers may be able to provide.

## CONDITIONS

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2. Adverts, will be inserted as and when space becomes available and will used on a 'first come, first served' basis. Wa will not be able to guarantee the insertion of a particular advert. into a particular issue of the magazine.

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4. The magazine or its publishers cannot accept responsibility for the contents of the

FOR SALE: Fidelity 3000 homebase, brand new, good reason for selling. Also Lemm GP aerial plus 12ft of coax, v.g.c. £70 or offers to 0592-267014.

FOR SALE: Zenith Mk 2 speech processor, as new, still in box, £25. Amstrad 901 rig, as new, in box £25. Phone Nick on Meare Heath 380.

AMSTRAD 901 CB nearly new (Feb. 7th 1985). Would like to exchange for a good hand-held 40-channel. Mr A. G. Jones, 3 Beauvale, Ferdinand Street, London NW1.

WANTED: FM board (KT2000) to fit Cobra 2000 base station. Will pay cash on receipt of unit. Must be able to cope with frequencies from 26.065MHz to 28.000MHz. This item is needed urgently. Phone 0239-811157.

REALISTIC Scanner 2003 Pro, two months old, still in box. Swap for 934 radio or sell for £200 o.n.o. Ring 0344 774004.

adverts., and by acceptance of these conditions the advertiser undertakes to indemnify the publisher against legal action arising out of the contents of the advert.

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Trevor Butler looks at some of the possible dangers involved in the construction and operation of Power Supplies

> hatever form of power supply is employed in a project, it is essential to follow certain general safety procedures at

all times. Innocent looking devices can harbour lethal voltages which means that constant care is necessary both during construction and operation of power supply equipment.

Let's first consider the different types of power supplies in use. These can range, by definition, from a simple battery cell to 240 volt mains. The term, however, is used more often to describe a unit which provides a certain current at a certain voltage and where the output and input voltages are different.

In its simplest form, an unregulated power supply consists of three basic stages; a transformer to step down the mains voltage to the required level and to provide a safety isolation, a rectifier to convert the output of the transformer to direct current and a smoothing circuit to change the rough pulsating DC to a reasonable, ripple-free current acceptable to the piece of equipment being powered.

This article is not concerned with the in-depth construction of a power supply, many text books cover the topic in detail and I will leave it to those authors to explain such terms as half-wave rectifiers and the detailed circuits available. Whilst the attraction of an unregulated supply is its simplicity and low cost, there are several drawbacks: a high value smoothing capacitor will be required to obtain a satisfactory output, and yet another is that wide variations in the output voltage will occur and lead to problems in operation.

# Smoothing

The smoothing can be improved by using two smoothing capacitors together with a resistor or choke. The only problem here is that there will inevitably be a voltage drop across the resistor, necessitating the use of a higher voltage transformer. In applications where the variation in supply voltage associated with unstabilised supplies would result in damage to the equipment or it producing inconsistent data, a fixed voltage regulated supply is needed. The most simple form of regulation is a Zener (diode) shunt stabiliser, but these can introduce noise so additional smoothing is required.

An improvement on this idea is achieved by employing a three-terminal regulator designed for the job. High performance monolithic voltage regulators are available as integrated circuits, with input, output and common connections; the only discrete components required are a capacitor across the input and another across the output. Variable voltage supplies can be built using more complex devices.

For heavy current power supplies, the size and weight of the mains transformer would make it more useful as a 'door stop' rather than in a piece of modern day electronic equipment. An alternative approach is that of using switching-mode power supplies in which the size and weight of the transformer cores can be dramatically reduced by using inverter-type switching transistors to raise the supply frequency to about 20 KHz, also allowing for smaller capacitors in the ripple filter.

Many of the safety applications associated with these units also affect the construction, whilst others relate only to the operational procedures and associated working conditions.

## Caution

Any rectifier having a low forward resistance must be regarded with caution as it may be operating into a capacitive load such as a reservoir capacitor or ripple filter. At the moment of switch-on, the capacitor presents a virtual short-circuit across the rectifier's output, Also, if the value of the capacitor is large, then high peak currents will flow during the short duty-cycle of the rectifier. Care must therefore be taken

# PLAYING IT SAFE



domestic mains, and transients can be caused by the inductive surges which build up when a mains transformer or smoothing choke is switched in, or out, of circuit. Strong current surges occur when a supply is switched on due to the rapid charging of the high-value reservoir capacitor.

It is thus essential to ensure that not only the rated PIV of the silicon diodes are well above the required figure but, also, that there will be no excessively high voltage or current surges.

Many of the standard safety regulations and guidance notes are applicable to the operation of power supplies with the inherent dangers involved with mains voltages and alike. These can be basically summarised as follows: 1. All apparatus and wiring should be so placed and constructed that it is impossible to touch points of high DC, RF or AC mains potentials under normal operating conditions.

2. The deployment of double-pole switches to ensure complete isolation of all mains transformers. These switches to be clearly marked with ON-OFF positions.

during design and planning.

An unfortunate tendency of silicon diodes during break-down is to short rather than go open-circuit and this will, of course, increase the danger that a fault in one diode will lead to others and endanger the transformer, an expensive component by anyone's standards. A fuse in the lead to the transformer centre-tap is useful in providing protection against a short-circuit across the load being fed from the power supply. Yet this will provide for only limited protection and better protection could be afforded by connecting a fuse in the transformer primary circuit, and here surge-proof delay fuses should be employed.

A point not always appreciated is that the peak voltages present may be considerably above the transformer ratings. For example with a 500-0-500 V transformer and a conventional fullwave rectifier circuit feeding a morsecode transmitter, the voltages when the supply is fully loaded by the transmitter may well be around 500V, but when the load is removed, i.e. when the morse key is not depressed, the DC voltage will rise to about 1.4 x 500V= some 700V and this is true when any load is removed.

A knock-on effect is to ensure that all components, and especially capacitors, are suitable and capable of withstanding these higher voltages. It is, in fact, the peaks, surges and combination of radio frequencies with DC voltages that cause flash-overs and breakdowns.



Silicon diodes are an ideal form of rectifier and whilst giving excellent service over many years can easily be ruined, and at the same time cause further damage to other components, mainly because they are capable of withstanding only their peak inverse voltage and it is essential that their ratings are not exceeded, even momentarily.

### Surges

During construction, it is necessary to ensure that there are no excessively high voltage or current surges, even of very short duration if silicon diodes are used. There are, for example, many short duration "overvoltages" on normal 3. High wattage bleeder resistors across power supply filter capacitors will prevent shocks.

4. Domestic AC mains voltage can be fatal if contact is made over an appreciable area of the skin. Do not use "live" chassis techniques in domestic or home-built equipment.

5. The greatest danger is exposed metalwork becoming live to AC mains or HT supplies.

6. Isolation and protective components can fail, therefore minimum safety requirements may not be all that are required.

A simple add-on unit to cut the output if a current in excess of some

predetermined level is drawn from the supply can save both injury and damage to equipment. An electronic fuse that reacts rapidly and far faster in operation than a conventional fuse, and is able to operate at lower currents than is possible with standard fuses is an asset. Several designs are available and when building or purchasing a psu this is a feature to look for.

Electrical safety is a subject which must be topical yet it is one about which there is a great deal of misconception. The thought and handling of 350 volts and other HT supplies will be taken with a certain degree of caution, although other currents and lower voltages often lead to the user taking unnecessary risks from time to time and it must be remembered that the live, or "line" lead, of the mains supply is the Achilles' heel of many who dabble in electronics.

# Danger

The real danger from mains is where either the skin or resistance is lowered by damp or where an area of live metal is gripped while in good contact with the earth.

One hazard is equipment with a mains-connected chassis used under a condition for which it is not intended. All equipment should be built with certain basic safety views in mind, such as, for instance that it is impossible for "little fingers" to touch any part of the chassis. Exposed parts should not be live, and these can be checked with a neon bulb with the on-off switch in



### each position.

A hazard can arise under fault conditions with a double-wound, or isolating transformer. The primary winding may short-circuit to the screening plate between primary and secondary, the core or one of the secondary windings so that the chassis becomes "live". Such equipment may well continue to operate in a satisfactory manner and thus represent a real danger over a long period; the best safeguard is to ensure that the shield between primary and the other windings the core and the chassis are all suitably earthed.

The earth connection must be of sufficently low resistance to cause the supply fuse(s) to blow, and of course the fuses should be the maximum amperage practicable.

One side of power supply safety concerns not the mains input, or even the DC output but rather, in radio applications at least, the reaction with RF. It is a common problem for RF to feedback into the power supply and precautions should be taken by inserting ferrite rings on the live-side of the mains input and also on the positive lead of the stepped-down output. Whilst damage to the psu is negligible, the effect on the resulting transmission is very unpleasant indeed.

This article is not designed to prevent anyone from considering power supply construction, indeed very cheap and reliable units can be built at home and they often represent a suitable alternative to those available in the highstreet

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Thinking of starting a QSL club? David Shepherdson, our QSL expert, gives us the benefit of his experiences in starting and running a club successfully

**PLAY YOUR CARDS** 

ow do I set up a QSL club?" That's a question I often get asked. Well, first of all you need a general idea of just what

your club is going to be like, how it will be run, a real love of the hobby, some organisational ability and quite a bit of money!

As I say, you need to have some idea of just what sort of club yours is going to be; strictly speaking this can only fall into two categories. It will be either free membership or it will charge for a full membership package. Once you have decided on this you can think more about actually launching it.

I'll take the free membership category first, then the fee-charging ones. The free clubs offer a unit number, exchange cards and other clubs' invitations, usually a supply of their own and, more so these days than back in the late 1970s and 1980s. an ID card is usually included. For this pack, all that is usually required, and here I refer to UK QSLers applying to UK free clubs, is a self-addressed stamped envelope and a number of your personal QSL cards. When applying to an overseas club where you just want a unit number and ID card (where available), then a small sum of money is required; this is to cover the costs of postage back to the UK. As a rule this is often \$2 (US). Of course, this also applies to overseas applications to the UK free clubs. With this type of club, there are usually various items available for you to buy from the club should you so wish. These are usually a club rubber stamp, club QSL cards, club stickers and cloth patches. Some clubs also offer pens, and keyrings. There's even one in America which offers a 2' high mouse and cheesel The name of the club? The Cheese Eaters of coursel

In the fee-charging variety, most of the above come included in the package although you can buy extra QSL cards, stickers etc if you wish. You pay a once-only amount which you send with your cards in exchange for the pack. Now, in the case of a feecharging club, the need for early finances is greater than that of a free club but, in both cases, money is needed to set it up correctly. Whatever type of club you decide to set up, it needs funds! Your Money! It is just not acceptable to set up a club and wait until, say, 15 members have applied to join before arranging for any items to be made for the packs. You must set your club up before you launch it, and then be prepared to spend plenty of time on it once it gets going, and usually quite a bit more money on it as well. Running a QSL club is not a quick way to make money; it usually loses it quickly. However, having said that, money is not the only coin you can receivel The smooth running of a club can be very rewarding when you start getting letters in saying things like "Hi, got your address from member 123 and he/she says how great a package you offer, please enrol me."

Now, bearing in mind the main differences between a free club and a

of paper with the end result being a totally unreadable bit of paper that ends up in the first waste bin it encounters! After all, the application form is the window through which the QSLer looks at your club.

There are many clubs about in the UK today who do use printed application forms, and many of these have an arrangement with the printer that he can put his address and details on the forms as they advertise his firm and this way they come at a more reasonable cost to the club. You will probably have had many of these passed on to you with other people's QSLs and floaters from time to time, so you should be able to work out what you want on your invites. Do remember that any artwork or special designs are usually copyright and photocopying them can land you in hot water! Of course, don't forget you will probably



fee-charging one in terms of the package, I come to the problems of finances. Yeah, moneyl You cannot (or perhaps that should be should not) try to start up a club on a few pounds or so. To put a good-value club together means you have to fork out your money for many items. The first thing you would need is application forms. For these, I really do recommend that you use a printer rather than, as some attempting to start a club up have in the past, scrawl the details on a scrap have a local printer somewhere in your town who could probably do some forms for you, if not as cheap or as easy as the specialist QSL printers. Don't forget, some of these do advertise in this magazine so check the small ads on the back pages. Some of these printers can also arrange to print club QSL cards, a very popular item for clubs to offer. Obviously, it depends on your design, or your printer's design if you are not too hot as far as drawing your own masterpieces go, and of course what sort of card you have them printed on as to how much they actually end up costing. For example, the Currie Card style costs between £2.50 to £4 per 100, depending on the design and so on, while POMA full colour cards start at £6 per 100. There are many other printers who can do any style of design on any type of card at almost any price, it's just a matter of shopping around. How do you find the addresses of these printers? Well, the majority of printers include either an address or phone number on the cards, so that's one way, or check the mag; some use the small ads, and many get mentioned from time to time in the regular QSL column.

The next item usually required by a OSL club, of either type, is a club sticker, or set of stickers. Again, there are many types of these, ranging from the straightforward "Vine Lodge" type, i.e. black lettering on white, gold or clear labels, through to the highly ornate "designer" stickers, often on fluorescent backing. Obviously, there are many firms who make stickers of all types and you will just have to ask around until you find the one you like.

The next biggest expense after the printing of the application forms and cards is the design and purchase of a stock of club stamps. Personally, I only know of three firms here in the UK who do make QSL stamps, but having said that I'll probably get a few letters from the dozens of stamp makers that I don't know aboutl Anyway, the three I know of are Norwich Rubber Stamps, C D Jones and D Currie. NRS and C D Jones can make almost any size of stamp, while D Currie offers a circular design style. Please contact these firms for details and prices (don't forget return postage if you want a reply).

As for the other extras a club offers, it is a matter of personal preference really, after all it is your money you are laying out and you hope that your prospective members will want to buy these extras. It is, after all, the sale of these extras that help to keep a club running and hopefully cover the costs of things like the printing of the appli-cation forms which are vital to the club. This applies to any club, free or otherwise, but don't expect to either break even or get your money back for a long time, if at all. If you are in it for the money, forget it. You can make money much quicker and easier some other way. Run a QSL club for the enjoyment and pleasure of seeing such a project grow over the years, and you should be prepared to spend time on the club as, if it is successful, it will hopefully run for a long time.

One item that is always welcome in a club pack is some local tourist information. You can usually get a supply of the various leaflets your area has to offer by calling at your local Tourist Board. In some areas this will have its own premises, or in others, as in mine, it could be part of the library.

Other questions I am sometimes asked include "Is there a national body I must register with?" Well, I've been running a club for over three years now and I do not know of one. Such a body has been proposed by some clubs from time to time, but after all, QSLers are individualists and, to work, such a body would have to be agreed upon by all clubs, not just one or two and, ideally, should not be connected too directly with any one QSL club. But all clubs would have to belong to it as it would be no good if, say, only half of the UK clubs were members or registered or however it was set up. Also, no two people can agree on what powers such a body should have. So, the short answer to that one is no.

'Do I have to register for tax?" is another one. This one is a little more difficult to answer, but if you mean VAT, then it is up to you. It is highly unlikely that a club will ever take enough money to exceed the minimum required for VAT registration. The only advantage I could see in registering would be that you could claim back the VAT you were charged on club items, i.e. stamps, cards etc. However, you would not then be entitled to charge VAT on your club packs or items. The disadvantages include the excessive paperwork required by the Customs and Excise for VAT records and, after all, a club should be looked upon as a hobby, not a business. Also, have you ever tried to explain to someone outside QSLing what a QSL card is? Well, think how difficult it is to explain a QSL club to someone who may not have even heard of CB radios! I know, I've tried! As for income tax, well it is, as I've said, a hobby and as such highly unlikely to make money as far as I know, you cannot pay tax back on a hobby which loses money.

Now, this next bit is going to sound just a little daft, as I'm going to try to sum up, and write down the "unwritten rules" of QSL clubbing. Be genuine, send a good package out, one that you would be happy to receive. Don't keep your members waiting too long for their package. Don't run riot with a photocopier and *never* photocopy someone else's card or design! This is piracy, breach of copyright and outright theft! As an individual, piracy can land you in court, but as a club it can be a lot worse and your reputation will be ruined!

When swopping cards, it is usual to swop like for like, that is single colour printed for single colour printed, full colour collector series for full colour etc. The reasons for this idea are quite simple. People have spent their money on their cards and often wish to collect 'like cards'', with the FCC series, these are a collectors series and, as such, they should only be swopped for the same type. Also the gold foil style (Ensign, Midas and Charlie) is becoming more and more popular these days and, again, should be swopped for similar styles. Please bear in mind that I am talking about swopping as a club here. When swopping as an individual you swop your cards with those you've received. It is however true that, as an example, people who hold a "Series' card, will usually have one or two other types of card to swop with "non-Series" cards. This is quite acceptable as the maxim has to be "send out as



you would wish to receive."

There are so many QSL clubs in the UK today that it is impossible to either count them or to keep track of them, and I refer here to QSL clubs in this article, as against the DX clubs, although much of what I've said can apply to those which offer a QSL swop as part of their package. But even so, there have been many, many more clubs which have folded in the last few years, some after only months. Often these clubs were set up without the organiser realising just how much time and money is required by such a venture. I know / didn't, but I'll come back to that in a minute or two. Other clubs were just set up because the "presidents" saw how the older and more established clubs made it look so easy. Of course, all most people see is the end result, but the person running the club experiences the "behind the scenes" of a club. It's not easy, it's not cheap and it's not for you if you expect it to make money or if you cannot devote a lot of your time for a long time to itl

Back in the late 1970s, the only type of club about was the fee-charging clubs, then along came the idea of free membership clubs which had the extras available if you wanted them. This gave the early clubs a little wellneeded competition but, for some of them, it also sounded their death knoll for some could, or would not adjust to compete. Of late, however, the feecharging clubs are making a re-appearance but the free clubs are still around, giving them some competition. This means for charging clubs to succeed, it must give value for money and be worthwhile joining. To my mind, this is not a bad thing, but necessary to the (hopefully) continuing improvement of the UK QSLing scene. I say this as in the past the UK has been getting a bad name, partly, but only partly, because of some of these here today, gone tomorrow clubs.

A few hints from personal experience ('cos He Who Speaks From On High said I could) might be helpful here if you are still interested in the idea of your own club. As I said, when I started up my own club, just over three years ago, I really did not know what I was letting myself in for. I had no idea of how much was involved and, to try to find out, I joined one or three clubs and compared what I received with what I had paid. Then I received membership from the Zulu Whiskey Club of Brighouse. This is actually the original UK free club and is still going strong to this very day. President Gordon was very helpful at the time in giving me a few hints.

After receiving my ZW pack, I knew what type of club I wanted, a free-membership one, but my biggest problem then was what was my club going to be called? This was a toughie, I can tell you. Nowadays, the practice seems to be for the president to take their own initials and convert them using the phonetic code into the name of the club. Personally, and I stress that, personally, I do not like that idea for a QSL club. It's okay for a DX club, but not really for a QSL one. I have always felt that a QSL club should have a proper name, and not be based on a few initials. Personal preference of course, like Yorkshire Rose, or Cutty Sark or Firebirds and so on. They can all be abbreviated to the initials, but they have a proper name that can be referred to in conversation. Anyway, I went through various titles like "Ilkley QSL Club", "Rest Home QSL Club" (Rest Home being likley's "handle", pretty logical considering the number of convalescent and nursing homes here) and finally Dragonrider QSL club. Why that? One of my passions is reading and I do enjoy a good sci-fi book, and one of my favourite authors is Anne McCaffrey who wrote about the Dragonriders of Pern. Hence the name of the club. (Just a point of interest here, Ms McCaffrey is actually an honorary member of the club).

So, I'd got myself a name, next came the club stamp, the designing and then the paying for it. My thanks go to NRS for their help in tidying up my rough design and doing such a grand job on it, for supplying me, and many other clubs throughout the years, so helpfully.

In my experience, a club should have its own cheque account, if only to keep its money separate from your own and also, as a rule, banks are not keen on accepting cheques or postal orders for an organisation into your own account. Be warned here, however, that only a few banks do offer free banking, the majority do insist on a minimum of £100 to keep the account free from charges. One notable exception to this rule is the National Girobank, available at your local Post Office. (Yes, that's the one I use.)

I said earlier that a successful club can take up a lot of your time. Well, in my own case, admittedly I have two clubs, and a few other calls on my time as far as dealing with the post goes, I do spend about 20 hours each week on the clubs. Obviously it is different for a new club, and indeed for any club, but do be prepared to spend quite a lot of time with your club instead of out enjoying the fine weather or whatever you did before you took on the running of a QSL club.

Anyway, one thing that is being used by many clubs to save time in these days of hi — tech, is a computer! Several clubs use one to prepare newsletters (Sierra Victor for one), others use them to store and print out rosters and to keep track of various items. It doesn't have to be a particularly expensive one. I am thinking here of one club that uses a Sinclair linked to a thermal printer, and another which uses an Atari, and I myself used an old VIC for couple of years. This has several advantages over photocopying everything, I use mine to keep these costs down, as instead of paving 7p - 10p a sheet, I can simply tell the computer to PRINT, I don't actually recommend that you go out and buy a computer and printer before setting up a club, but if you can get access to one, or if you already have one, then they can be very useful.

Some of the things I use a computer for are rosters, price lists, letter writing (and with my spelling it's a lot simpler to correct), even drafting out this article and lots more. It is even possible to obtain a program to work out distances between stations, and for hams, RTTY decoders for morse and so on.

Well, I hope I've given you some insight into the running of a QSL club and, if you still want to set one up yourself, do give it a lot thought as it is not something to be undertaken lightly. There are a lot of clubs here in the UK, many of which will probably not be here this time next year if the past year is anything to go by, but if you have the time and money to spare and there is not already one in your area, think about it. But do be careful, it will not just be your money that you risk, and not only your reputation. Good luck to all prospective clubs and their presidents.



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# **Duston Radio Club**

Just over a year ago, we decided to form a radio club in our village. We are a section of the Duston Community Centre and, since our formation, have raised quite a lot of money for various causes. Last Christmas, we collected a huge pile of toys for the less fortunate children in our town.

We have found that, on the whole, CBers are a caring and generous bunch of people and thought that, for their help to us in the past, we would try and give them something in return so we spent nine hours on channel on May 11 th and anyone who QSKd and QSLd us were entered in a free draw. The draw was made on May 22nd on our club night and we were assisted in the draw by the Golf Bravo Club of Northampton. Gingerbread Man won the first prize of a bottle of vodka, and other prizes included a car radio, chocolates, a pre-amp and wine.

Through your excellent magazine, I would like to thank everyone who has supported us in the past and look forward to copying them again. Ramblerman, Duston Radio Club, Duston Community Centre, Pendle Road, Duston, Northampton.

# Whiskey Delta Charlie International QSL DX Club

The Whiskey Delta Charlie Club meets every Sunday night at the Flanshaw Hotel, Wakefield — just off gate 40 on the M1. We are a large group with over 1,500 members both in England and overseas (we have members in 31 countries).

Life membership costs £2, and we also sell a new club awards directory which incorporates a full members' directory including all overseas members, a 100% QSL list, DX information, country prefixes plus clubs recommended by the WDC group. This costs £1.40 plus 50p post and packing. For more information, send a SAE to the address below.

WDC492 Tom, Whiskey Delta Charlie QSL DX Club, PO Box 71, Wakefield, West Yorkshire.

# Hotel Mike DX Group

We are a small but fast-growing group with a membership, at present, of 20 paid-up members. Our main aim is to promote friendship via radio contacts. We also strive to help in many ways the underprivileged. Last year, along with other groups, we took part in the Poppy Run, which was a sponsored cycle race for the Star and Garter Home for Disabled Servicemen.

We regularly meet at the Prince of Wales in Twickenham every second Sunday of the month and regularly arrange DX meets and eyeballs. We have a two-tier membership and supply club cards. We do ask that members who join us QSL 100%. We cater for all bands although, at the present time, most of our members use only 27 MHz FM.

Any persons wishing to come along to our socials are welcome. We hold these on the second Friday of the month. Anyone interested in joining our group should contact me at the address below.

Knightrider, PO Box 11, Hampton, Middlesex

# Knights of the Round Table

I am writing to inform you of a new club which has formed in the North Hampshire/Surrey border area. The name of the club is the Knights of the Round Table and the idea behind the club is that breakers have to try and copy and QSL with all of our members (12).

(12). When they have done this, if they inform me in writing of the dates of the copies, they can be checked against the club's master log. When this is done, the club will send the breaker a prize in recognition of their achievement I would be obliged if you could give the club a mention in the magazine. Firefox (Mark), PO Box 103, Hook, Basingstoke, Hants.

# **Country CB Club**

We are having a giant eyeball from Friday 27th September at 12 noon until Monday 30th September at 10am. It will be held at a local holiday camp, between Scarborough and Filey. Caravans are available at two prices: standard 6/8 berth £21; de-luxe 6/8 berth £25. This includes gas and electricity (but you will need your own bed linen), and entertainment in the form of two bars, disco, dancing, singalong, sports, demonstrations and a traders' market on the Saturday.

You can also bring your own mobile vans at £3.90 per night with pass tickets for two (extra passes £1 each) and tents are £2.90 per night with two passes. I am sure that there will be a lot of club members and non-members who read this magazine and who will be interested in the eyeball. If so, please send for more details and booking forms to the address below. All bookings must be in by the end of August

Midnight Blue and Peapod, Country CB Club, PO Box 36, Scarborough, North Yorkshire



# Hythe Breakers Club

Please could you give the Hythe Breakers (Hotel Bravo) Club a mention in your Club News section. We meet every Sunday night at the Hythe Football Club in Fort Road, Hythe. Subscriptions are £2 per year or £3.50 (family). Entrance fee to the Sunday meet is 25p. The Chairman is Pink Panther 1 and the Secretary is Flying Vixen.

Hotel Bravo Club, PO Box 36, Hythe, Kent

# Devonport CB and DX Club

We are a newly-formed CB and DX club and we get a copy of your magazine every month. At the moment, we have a membership of 25 breakers and, hopefully, we will get more.

We are arranging trips to mass eyeballs and other activities. Our membership fee is £3 and this includes a membership card and PO Box number. Devonport CB and DX Club, PO Box 2B, Plymouth, Devon

# **Roche Breakers Club**

We are a newly formed club of 36 local breakers at present. We are, of course, keen to increase this number and, for anyone interested, our membership is £2 initially, reducing to £1 upon renewal which is in August each year. We would welcome any new members and would like to hear from any clubs who would like to contact us.

To get things started, we held our first eyeball in May and proceeds from

this and a few other functions went to a local centre for the disabled. A few of our members would also be interested in card swapping. Anyone wanting to swap should contact me (Flying Angel) or Blue Anchor.

Flying Angel, Roche Breakers Club, PO Box 1, Roche, St Austell, Cornwall

### Ham International Owners Club Our group was founded in West Yorkshire in 1981 after approval from Ham International, with whom we have regularly kept in touch since. In fact

International, with whom we have regularly kept in touch since. In fact, I recently had the pleasure of a visit to their headquarters in Gent, Belgium.

At the time of writing, we have over 400 members worldwide and their interests now range from 1.8MHz through to 934MHz. In the course of time, we have affiliated and exchanged memberships with many clubs around the world.

I would be happy to hear from any existing members again (some of who will, no doubt, be radio amateurs nowl) and from any new owners of Ham International rigs. Any other club secretaries wanting application forms will, for their troubles, receive a good quantity of our new forms. I am also interested in their opinions of the state of CB in the UK at present and for the future.

Martyn Bolt, Ham International Owners Club, PO Box 8, Mirfield, West Yorkshire

# Whiskey Delta X-Ray Club

I thought I'd drop you a line about the Whiskey Delta X-Ray Club, membership of which is open to any serious DXers or anyone interested in QSLing. The aim of the World DX Group is to bring people of all races from all over the globe together.

The Club is based in Guernsey, Cl, and started in June 1984. We are a young club and we aim to get members from all over the world — and membership is growing fast

Anyone interested in joining the club should contact me at the address below and I will send them an application form.

cation form. Martyn (Battlestar), Whiskey Delta X-Ray Club, PO Box 284, Guernsey, Cl



The most Comprehensive MARKSMAN PRODUCTS listing of CB's, Makers of First Class C.B. Equipment cessories 'MISTER STICK We can now offer the 'Mister Stick' in two lengths and two finishes. The original length, being ideal for truckers who demand that extra height, and the new, more compact size. Both types are available now in luxury chrome on brass, or all stainless steel construction. Performance on both being equal. (For report, see March edition of this magazine.) Prices are: Chrome on brass £13.00 inc VAT £14.00 inc VAT All stainless steel £1.25 extra Post and packing THE BIGGEST RANGE DISCOUNT OF CB'S AND **Vouchers Worth** Trade enquiries welcomed. Club discounts for ACCESSORIES Up To orders of 10 or more direct from us at 121/2%. IN THE E 1 COUNTRY Allow 14 Days for Delivery Included Please contact us at: To: TRUCK KING Dept. C B9 867 St. Albans Rd, Garston, Watford Herts. WD2 6LN. Marksman Products Ltd, Tel: (0923) 661673. I ENCLOSE £1:00 CHEQUE/RO payable to TRUCK KING. P.O. Box 40, Milton Keynes, NAME Bucks, **MK6 2UT** ADDRESS \_ Telephone 0908 668916 0908 564130 WHY NOT CALL British Code of Advertising Practice AOVERTISEMENTS IN THIS PUBLICATION ARE REQUIRED TO TROPHY DEALER" AOVERTISEMENTS IN THIS PUBLICATION ARE REQUIRED TO CONFORM TO THE BRITISH CODE OF ADVERTISING PRACTICE. IN RESPECT OF MAIL ORDER ADVERTISEMENTS WHERE MONEY IS PAID IN ADVANCE, THE CDDE REQUIRES ADVERTISERS TO FULFIL ORDERS WITHIN 28 DAYS, UNLESS A LONGER DELIVERY PERIOD IS STATED. WHERE GOODS ARE BETLIBRED LINDAMAGED WITHIN SEVEN DAYS. THE (Recognised CB Handle) Everything for the CBer RETURNED UNDAMAGED WITHIN SEVEN DAYS, THE PURCHASER'S MONEY MUST BE REFUNDED. PLEASE RETAIN All items personalised with no minimum order PROOF OF POSTAGE/DESPATCH, AS THIS MAY BE NEEDED. required. C/o. Refunds given if not satisfied. T-Shirts £2.99 Complete ERT Sweat Shirts £5.99 Complete QSL Cards £5.00 per 100 Mail Order Protection Scheme If you order goods from Mail Order advertisements in this Membership Cards £5.00 per 100 magazine and pay by post in advance of delivery Cloth Badges from £1-£4 each will consider you for compensation if the Advertiser should become insolvent or bankrupt, provided: Multicoloured, various sizes made to You have not received the goods or had your money ٩ returned; and individual's requirements 2. You write to the Publisher of this publication; summarising Car Stickers 50p each the situation not earlier than 28 days from the day you sent EB your order and not later than two months from that day. Ties/Scarves £2.50 each Please do not wait until the last moment to inform us. When you Metal "Handle" Badges from 50p each write, we will tell you how to make your claim and what evidence of payment is required. BD We quarantee to meet claims from readers made in accordance We also supply a specialised printing service to with the above procedure as soon as possible after the CB Clubs. "Secretaries" WHY NOT LET US PRINT Advertiser has been declared bankrupt or insolvent (up to a limit of £2,000 per annum for any one Advertiser so affected and up YOUR CLUB MAGAZINE ETC? to £6,000 per annum in respect of all insolvent Advertisers. Claims may be paid for higher amounts, or when the abeve proceduro has not been complied with, at the discretion of this Open 7 days a week. Sundays 10-6. Personal callers welcome. publication, but we do not guarantee to do so in view of the We are situated only a few minutes away from Junction 1 - M5. need to set some limit to this commitment and to learn quickly Ample car parking facilities. of readers' difficulties.) This guarantee covers only advance payment aent in direct WEST BROMWICH SPORTS TROPHIES response to an advortisement in this magazine (not, for example, payment made in response to catalogues etc, received as a 41-45 Bull Street, Ringway, result of enswering such advertisements). Classified West Bromwich, West Midlands edvertisements are excluded. Tel: 021-525 1231
#### "AGRIMOTORS" (J. W. C. HUNT) **MERTON "CB" RADIO CENTRE** MERTON, OKEHAMPTON, DEVON, EX20 3DZ Tel: BEAFORD (08053) 200

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LATEST NEW: We now stock:-

## For 27 M/hz COMMUNICATIONS

The Radio Technic Ltd, Model RT.852 T/ceiver. A superb set for Commerce, The Home, and Commercial Transport priced £69.95 (VAT included)

### For 934 M/hz COMMUNICATIONS The Uniace Tele Communications Ltd Model, Uniace 400 Mobile 8 WATTS out-put transceiver. Price on application.

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# The Advertising Standards Authority.

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#### 1/2 watt E. R. P. 0.5 uV for 10dB Sinad Comes complete with NI-Cads Pack and Charger + Rubber Duck (B.N.C.) Antenna + Cigar Lighter Adaptor for use in car.

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| Suitable for the follow | ing rigs:   |                      |  |  |  |  |  |
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| CB MASTER               | Puma  | STALKER              |  |  |  |  |  |
| B5020                   | Viking  | ST 9 F DX            |  |  |  |  |  |
| 3600                    | Viking 2  | SUPERSTAR            |  |  |  |  |  |
| COBRA                   | HY-GAIN   | 360 FM Mk 1          |  |  |  |  |  |
| 148 GTL DX Mk 1         | 3 2703  | 360 FM Mk 3          |  |  |  |  |  |
| 148 GTL DX Mk 3         | 5 2795 Mk 1   | 2000 Mk 1            |  |  |  |  |  |
| GTL 150                 | 5 2795 Mk 2   | 2000 Mk 2            |  |  |  |  |  |
| COLT                    | 5 2795 DX   | 2200                 |  |  |  |  |  |
| 320                     | 5 8795  | TRISTAR              |  |  |  |  |  |
| 320 FM                  | INTEK   | 747                  |  |  |  |  |  |
| 485                     | 1200 FM   | 777                  |  |  |  |  |  |
| 720                     | LAFAYETTE   | 797                  |  |  |  |  |  |
| 870                     | HB940   | 848                  |  |  |  |  |  |
| 890                     | 1200 FM   | SUITABLE MAIN        |  |  |  |  |  |
| 1200 DX                 | 1800  | BOARD No.            |  |  |  |  |  |
| 1200 Excalibur          | MARCO   | PBO10                |  |  |  |  |  |
| 1600 DX                 | 444   | PC879                |  |  |  |  |  |
| 1600 Excalibur          | 747   | PC893                |  |  |  |  |  |
| FORMAC                  | Excalibur 1   | PC999                |  |  |  |  |  |
| 80                      | MAJOR   | PT8M 059             |  |  |  |  |  |
| 88                      | M120  | PTBM 094             |  |  |  |  |  |
| 120                     | M588  | PTBM 106             |  |  |  |  |  |
| HAM INTERNATIONAL       | M360  | PTBM 121             |  |  |  |  |  |
| Concorde 1              | MIDLAND   | PTBM 125             |  |  |  |  |  |
| Concorde 2              | 6001  | PTBM 131             |  |  |  |  |  |
| Concorde 3              | 7001  | PTBM 133             |  |  |  |  |  |
| Jumbo 1                 | NATO  | PTBM 137             |  |  |  |  |  |
| Jumbo 2                 | 2000  | PCMA 001             |  |  |  |  |  |
| Jumbo 3                 | PRESIDENT   | Please state chassis |  |  |  |  |  |
| Multimoda 2             | McKinley  |                      |  |  |  |  |  |
| Multimode 3             | Grant   | number required.     |  |  |  |  |  |
| Complete with simp      | Complete with simple to fit instructions £9.95 inc. |                      |  |  |  |  |  |

GOLF COMMUNICATIONS PO BOX 60, RICKMANSWORTH, HERTS WD3 2XE

## INTRODUCING MODEL SC27 I.C. POWER SPEECH CLARIFIER



Hi-Fi on CB? The SC27 offers a really effective answer to problems associated with poor modulation A Radio 5 report becomes reality every time, whether DX or local. Price **£29.95 incl**.

Further details from W.W.S. PO Box 14, Westbury, Wilts BA13 3TY



# zens Ba E(C)5



#### A CB SET AND ITS CONTROLS

#### VOLUME

Sometimes called Audia Frequency Gain control. Usually combined with the 'power on' switch. The volume control will only increase or decrease the loudness of the incoming signal - it won't alter the strength of it or affect the transmitted signal.

CHANNEL SELECTION For choosing the channel you transmit and receive on.

CHANNEL INDICATOR

Displays, usually by LEDs, the channel you have selected. Some channel displays are of liquid crystal or fluorescont. The digits are normally bright red, green, orange or blue and visible in all but the most direct sunlight.

SQUELCH

The squetch control is used for quieting background hiss or the babble of distant signals. The control is turned slowly, usually to the right, until the background noise disappears. The squetch circut will then only open to let through a stronger signal than those you have quieted out. As soon as the stronger signal goes, the circuit closes. Care must be taken not to turn the squetch control up too far, as then only a very strong signal will open it.

SIGNAL/RF METER On most sets this is of the 'moving needle' type against an analogue background. Some sets do have a bar of LEDs that light up to show the strength of either the received signal or the transmission. It shows the *relative* strength, not a reading in dB or Watts. These meters cannot be 100% accurate and different rigs will give slightly different readings for signals of the same strength.

RF GAIN This controls the reception sensitivity of the set. When decreased the set is less sensitive, and when increased the set is more sensitive to weaker signals. Reducing the gain helps prevent Some sets, instead of having a suitable rotary control, have a flick two position switch marked *local* and *distance*. Full sensitivity is the distant position

#### MIC. GAIN

Adjusts the sensitivity of the microphone amplifier circuit and controls the audio from the microphone that is used to modulate the signal.

CB / PA SWITCH This switch turns your CB set into a low public address amplifier, when an external speaker is fitted into the socket on the back of the rig. Anything said into the microphone is amplified and broadcast through the speaker and not transmitted from the antenna.

TONE OR FILTER CONTROL This can either be a rotary or flick switch. It controls the tonal quality of received signals in accordance with the users preference.

POWER ANTENNA Reduces the transmitter power from 4Watts to D.4Watts. The attenuator should be used if your antenna is mounted more than 7 metres above the ground

## RX/TX INDICATORS

light emitting diodes light up to show if you are receiving (RX) or transmitting (TX).

ANTENNA WARNING INDICATOR This a warning indicator which is activated by trouble in the antenna system e.g. a bad mismatch or damage to the antenna or cable. You should stop transmitting if this lights up, and correct the problem

#### Your set may also have the following controls

CHANNEL 9 SWITCH This is an 'over-ride' switch that will immediately solect channel 9 without using the channel selector to find it. It is fitted to save time in an emergency

#### **DELTA TUNE**

This is not a common feature on British sets, where frequency and stability are closely specified. It is a fine tuning device for tuning in stations that are operating slightly off frequency. DIMMER

Works on the same principle as a domestic light dimmer, and reduces the amount of illumination on displays and dials on the CB set. A few sets have an automatic dimmer built in, which measures the lighting level through a photo-electric cell and adjusts the illumination accordingly.

ANL/NOISE BLANKER The Automatic Noise Limiter or Noise Blanker is designed to reduce interference from a car's ignition system by desensitiving the receiver slightly. If the ignition circuit is already adequately suppressed it will not make any difference

#### CHANNEL BUSY/FREE INDICATOR

This is usually a LED that illuminates when a particular channel is in uso or is free. This is gauged by the amount of 'traffic' on the channel which has to be at a certain level before the indicator is activated. Sets have either a 'free' or 'busy' indicator, not both.

FM RIG CHECKLIST

| NAME         | MODEL         | RETAIL | NO.  | SUPPLY<br>VOLTAGE | SQUEL | NB SWITCH | ANI, SWILL | MIKE GAL | RF GAIN | TONE COL | S. RF. M. | SIRFIER | MILLO 01 | PA FACIN | EX - |
|--------------|---------------|--------|------|-------------------|-------|-----------|------------|----------|---------|----------|-----------|---------|----------|----------|------|
| AUDIO LINE   | 341           | £60    | 40   | 13.8VDC           | 0     |           |            | •        | 0       | •        | ٠         |         | •        | •        | 2.2  |
| AUDIO LINE   | 340           | £40    | 40   | 13.8VDC           |       |           |            | •        | 14×111  | •        | •         |         | •        |          |      |
| AUDIO LINE   | 342           | £115   | 40   | 13.8VDC           | •     | 12.       | - And      |          | 1       |          | •         |         |          | •        |      |
| COLT         | 295           | £49.99 | 40   | 13.8VDC           |       |           | 1000       |          |         |          |           |         | •        |          | •    |
| COMMTEL      | GT858         | £30    | 40   | 13.8DVC           | •     | 1         | 2          |          |         | 11       | •         |         |          |          |      |
| COMMTEL      | GT688         | £35    | 40   | 13.8DVC           |       |           |            | -        | •       |          |           |         |          |          |      |
| COMMTRON     | CB40F         | £70    | 40   | 13.8VDC           | •     |           | 112        |          | 221     |          | •         |         | •        |          |      |
| COMMTRON     | CXX           | £69.95 | 40   | 13.8VDC           |       |           |            |          |         |          | •         |         | CO.      |          |      |
| OMMUNICATORS | NI-440DX      | £60    | 40   | 13.8DVC           |       |           |            |          |         |          |           |         |          |          |      |
| CYBERNET     | BETA 1000     | £70    | 40   | 13.8VDC           |       |           | -          |          | 10-21   |          |           | •       |          |          |      |
| CYBERNET     | BETA 2000     |        | 40   | 13.8VDC           |       |           | -          |          |         | •        | 1000      |         |          | •        |      |
| CYBERNET     | BETA 3000     | £100   | 40   | 13.8VDC           |       | -         |            | -        | •       | •        | •         | •       | •        |          |      |
| NTERCEPTOR   | INTERCEPTOR   | £80    | 40   | 13.8VDC           |       | 12        | 3 25       | -        |         | •        |           |         | 0        |          | •    |
| NTERCEPTOR   | TC400         | £95    | 40   | 13.8VDC           |       |           | •          | •        |         |          | •         |         | 0        | 111      | •    |
| NTERCEPTOR   | ONE HANDER    | £100   | 40   | 13.8VDC           |       |           | E          | •        |         | •        | 1000      |         | 1000     |          | •    |
| JOHNSON      | JOHNSON       | £50    | 40   | 13.8VDC           | •     |           | 0.00       |          |         |          | •         |         |          |          | ٠    |
| AKE          | MANXMAN 850   | £32.50 | 40   | 13.8VDC           | •     |           |            |          | 1200    |          | 0         |         |          |          |      |
| AKE          | MANXMAN 950   | £37.50 | 40   | 13.8VDC           | •     |           | 10.25      |          | •       |          |           |         |          |          |      |
| LOWE         | TX 40         | £50    | 40   | 13.8VDC           |       |           |            |          |         |          |           |         | •        |          | 0    |
| MAGPIE       | AUTOSCAN 5000 | £120   | 40   | 13.8VDC           |       | · · · · · |            | •        |         |          | 0         |         |          |          | •    |
| MAXCOM       | 4E            | £50    | 40   | 13.8VDC           |       |           |            |          | -       |          |           |         | •        |          | •    |
| MAXCOM       | 6E            | £48    | 40   | 13.8VDC           | •     |           | ALT DE     |          | •       |          | 0         |         | •        |          |      |
| MAXCOM       | 20E           | £50    | 40   | 13.8VDC           | •     |           |            |          | and the |          |           | -       | •        |          |      |
| MAXCOM       | 21E           | £50    | 40   | 13.8VDC           | •     |           | STREET     |          | 1       |          | •         |         | •        | 1.00     | _    |
| MAXCOM       | 16E           | £40    | 40   | 13.8VDC           | •     |           | 1000       |          | I MARY  |          | •         |         | •        | -        |      |
| MAXCOM       | 30E           | £66    | 40   | 13.8VDC           | •     |           | Cha See    | •        | •       | •        | •         | -       | •        | •        | •    |
|              |               |        | 1    |                   |       |           |            |          |         |          |           |         |          |          |      |
|              |               | MAXCOM | 4E [ |                   |       |           |            |          |         |          | á         |         |          |          | -    |
|              | NUM N         | (PWA   | тх   | 1 '               | 4     |           |            | _        |         |          | E         |         | -        | 1        |      |

This listing includes most of the rigs available for FM CB. Some rigs are still not on the market, but may be picked up second-hand or may be found in old stock at some shops. The prices quoted are recommended retail prices or typical price — they may vary considerably from shop to shop and area to area.

| CH 9 SWITCH | COMMENTS               | ADDRESS  | NAME        |
|-------------|------------------------|--|-------------|
| 9 8         | BL                     | Telecommis. 189 Landon Rd. North End, Portsmouth   | AUDIOLINE   |
|             | Report Feb '82         | a subject of the second s | AUDIOLINE   |
|             |                        |  | AUDIO LINE  |
| 1           | FL                     | K B & Co Ltd., 202 Cheetham Hill Rd, Manchester  | COLT        |
| S           | iL                     | Globe, 168 Brooker Road, Waltham Abbey, Essex  | COMMTEL     |
| S           | Dimmer Switch Features | CINER SOM PROFESSIONS OF STREET  | COMMTEL     |
| • F         | FL                     | Roger D, 831 Mansfield Rd, Notta   | COMMTRON    |
| F           | FL                     | the second se  | COMMTRON    |
| • F         | Roger Boop Feature     | Transferration and an and the state  | 1.100       |
| -           | SL                     | Geodmans Loudspeaker Ltd., Downley Rd, Havant, Hants POO 2NL   | CYBERNET    |
|             | L Report May '83       | avourians couppeaker ctur, downing nu, navani, nama Poo znic   | CYBERNET    |
|             | L Report September '83 | NAME OF OCTAL TOTOL AS CARY, CONTRACT, OF OT   | CYBERNET    |
|             | iL free                | Telecomms, 198 London Rd. North End, Portsmouth  | INTERCEPTOR |
| F           | ÷۲                     |  | INTERCEPTOR |
| F           | T                      |  | INTERCEPTOR |
| F           | L Great GT868 chassis  | Star Warnhouse, Chalk Farm Rd, London  | JOHNSON     |
| F           | L                      | Roger D, 831 Mansfield Rd., Nottingham NG5 3GF   | LAKE        |
| F           | R Report April '83     |  | LAKE        |
| F           | L Report March '83     | Lowe Electronics, Matlick, Derbyshire  | LOWE        |
| • F         | L Report November '82  | Magpie Electronics, PO Box 35. Andovur, Hants SP10 2LG   | MAGPIE      |
| F           | L.                     | AM House. 9A Old's Approach. Tolpits Ln, Watford, Harts  | MAXCOM      |
| • F         | L                      |  | MAXCOM      |
| • F         | L                      |  | MAXCOM      |
| • Fl        | L                      |  | MAXCOM      |
| F           | L                      |  | MAXCOM      |
| F           | L Report Jan '84       |  | MAXCOM      |
| 2 8         |                        |  | ELL ELL NG  |
|             |                        |  | 2. 2.       |
| F           | L Report Jan '84       |  | MAXCO       |

| NAME     | MODEL          | AELAIL PRICE |    | SUPPLY VOIT     | Sourer | 14   | ANIL S.       | 4 | RE GAIN | ~       | S. R.CONTROL | S. R.C. | HILL R.O. | PA E. OUTPUT | Et VILLY |
|----------|----------------|--------------|----|-----------------|--------|------|---------------|---|---------|---------|--------------|---------|-----------|--------------|----------|
| MERCURY  | 10 40          | N/A          | 40 | 13.8VDC         | •      |      | Lange and     |   | 0       |         | •            |         | •         | •            | •        |
| MUSTANG  | CB1000         | £49.95       | 40 | 13.8VDC         | •      |      | July La       |   |         |         |              | 24      | 1111      | •            | •        |
| MUSTANG  | CB3000         | £59.99       | 40 | 13.8VDC         | •      |      |               |   | •       | •       | •            | 1000    |           | •            | •        |
| NATO     | 40M            | £69.95       | 40 | 13.8VDC         | •      | 1.1  |               | • | •       | •       | •            | 184     | 2.2       | •            | •        |
| NATO     | 2000           | £189.95      | 40 | 13.8VDC         | •      | •    | •             |   | •       | •       | •            | 12      | •         | ٠            | •        |
| OSCAR    | OSCAR I        | £85          | 40 | 13.8VDC         | •      |      | -             | - | 2       |         | 0            | 1       | •         |              | •        |
| OSCAR    | OSCAR II       | £49          | 40 | 13.8VDC         |        |      | Margan        |   | 10000   |         | •            | 2       | •         | •            | •        |
| ROTEL    | RVC 220        | £50          | 40 | 13.8VDC         | •      | 0-   | Non Por       | - | -       |         | •            | -       | •         | -            | •        |
| ROTEL    | RVC 230        | £70          | 40 | 13.8VDC         | •      | -    | 2-2-          |   |         | •       | •            |         | •         | •            | •        |
| ROTEL    | RVC 240        | £90          | 40 | 13.8VDC         |        | 1    |               | • | •       | •       | •            |         | •         | •            | •        |
| SIRTEL   | SEARCHER       | £40          | 40 | 13.8VDC         | •      | S-1- |               |   |         |         | •            | - 1     |           | •            | •        |
|          | TRC2001        | £80          | 40 | 13.8VDC         | •      |      | -             | - |         |         | •            |         | •         | •            | •        |
|          | TRC2002        | £70          | 40 | 13.8VDC         | •      | 1    | in the state  |   |         |         | •            |         | •         | •            | •        |
| TANDI    | TRC2000        | £100         | 40 | 13.8VDC         |        |      | -             | • | •       | -       | •            |         | •         | ٠            | •        |
| TANDY    | TRC1004        | £79          | 40 | 12VDC           | •      | 545  | 2             | - |         |         |              |         | •         |              | 100      |
| TANDY    | TRC2003        | £130         | 40 | 13.8VDC         | •      |      |               |   |         |         |              |         | •         | -            | •        |
|          | UNIACE 100     | £69.95       | 40 | 13.8VDC         | •      |      | -             | - |         | 1 duran | •            | web.    | •         | •            | •        |
| UNIDEN   | UNIACE 200     | £89.95       | 40 | 13.8VDC         | •      | 2    |               | • | •       | •       | •            | _       | •         | •            | •        |
| WESTERN  | COMPACT 40     | £34.50       | 40 | 13.8VDC         | •      | 15   | in the second |   |         | 1       | •            | -14     | •         |              | •        |
| WESTWARD | P.T.2          | £159.95      | 40 | 13.8VDC<br>240V | •      |      |               |   | ebra    | -1-11-1 | •            | "let    | •         | •            | •        |
|          | and the second |              |    | C. C.           | Sect   | EI.  |               | - |         |         |              |         | 1         |              | 2        |
|          |                |              |    |                 |        |      |               |   |         |         |              |         |           |              |          |
|          |                |              |    |                 |        |      |               |   |         |         |              |         |           |              |          |
|          |                |              |    |                 |        |      |               |   |         |         |              |         |           |              |          |
|          |                |              |    |                 |        |      |               |   |         |         |              |         |           |              |          |

| CO        |            |                 | 2    | lers/       |     | 1        | /      | 1        | /         | /    | 1              | /     | /         | 1          | 7        |
|-----------|------------|-----------------|------|-------------|-----|----------|--------|----------|-----------|------|----------------|-------|-----------|------------|----------|
| NAME      | MODEL      | RETAIL<br>PRICE | 10.1 | OF CHANNELS | Som | NB SW    | ANU CH | Alike CH | RE GAIN   | TONE | S. HE . ONTROL | S.AF. | H1.10 A.O | PA FA      | st south |
| AUDIOLINE | 345        | £139.95         | 40   | 240VAC      | •   | 12       |        | •        | •         | •    |                | CST.  | •         | •          | 1        |
| COMMTEL   |            | £65             | 40   | 240/12V     | •   | S. Dec   | 12 1   |          | 020       | _    | •              | -     |           | Territoria | 22       |
| HAM INT.  | ЈИМВО      | £254            | 40   | 240VAC      | •   | 2        | •      | •        | •         |      |                | 15    |           | •          | 1910-    |
| HARVARD   | H401       | £149.95         | 40   | 240VAC      | •   |          | 100    | •        | •         |      |                | 1     | •         | •          |          |
| HARVARD   | WT44       | 100             | 40   | BATTERIES   | •   | 1351     | 1      |          | 2.8       |      | 1210           | 1     | •         |            |          |
| KAISER    | CBX40      | £80             | 40   | BATTERY     | •   | 1000     |        |          | VSEI      |      | •              |       | •         |            |          |
| MAXCOM    | 78         | £49.95          | 40   | BATTERY     | •   | 65170    |        |          |           |      | 122            | 1212  | •         |            |          |
| TANDY     | TRC1001    | £119            | 1000 | BATTERY     | •   | Sectors. | 1000   |          | 13.1      | -    | •              | - 1   | •         | •          |          |
| UNIDEN    | UNIACE 300 | £149.95         | 40   | 240VAC      | •   | 100      |        | •        | •         | ٠    | •              |       | •         | •          | -        |
| WESTWARD  | P.T.2      | £159.95         | 40   | 240V/12V    |     |          | 11000  |          | 1 million |      | •              |       |           |            |          |

|        |            |          |        |                                     | REFE   | RENC     |
|--------|------------|----------|--------|-------------------------------------|--|----------|
| " "ACK | AL UCHT    | D. 1/6HT | Swirch | Commercis                           | MOBIL  | ES       |
| 1      | Nº Xa      | CH.      | WIN .  | Com                                 | ADDRESSES  | NAME     |
| •      | •          |          | FR     | Report July '83                     | E.M.S. Communications, Grove St, Wantage, Oxon LX21 7AD  | MERCURY  |
| •      | •          |          | FL     |                                     | K B. & Co Ltd, 202 Cheatham Hill Rd, M/cr.   | MUSTANG  |
| •      | •          | •        | FL     |                                     |  | MUSTANG  |
| •      |            |          | FL     |                                     | Roger D, 831 Mansheld Rd, Nettingham NG5 3GF   | NATO     |
| •      | the second |          | SL     | Report January '83                  |  | NATO     |
|        |            | •        | FL     | Cybernet 134 chassis rep. April '82 | S.M.C. Runbridge St. Totton, Hants SO4 40P   | OSCAR    |
|        |            | 1        | FL     | Report Oct '83                      | and the short constitution of headed and   | OSCAR    |
| •      |            |          | FL     | Cybernet chassis                    | Rotel Hi-Fi, 2-4 Erica Rd, Stacey Bushes, Miton Keynes   | ROTEL    |
| •      | •          | •        | SL.    | Cybernet chassis                    |  | ROTEL    |
| •      |            |          | SL     | Cybernet chassis                    | the instruction of the local and the local and   | ROTEL    |
| •      | 3.43       |          | FL     |                                     |  | SIRTEL   |
| •      | •          |          | SL     |                                     | Tame Way, Tower Bridge St. Watsalt, Staffs   | TANDY    |
| •      |            |          | SL     |                                     | and the set of the   | TANDY    |
| •      | 1          |          | SL     |                                     | the state of the s | TANDY    |
| ٠      | 1          |          | -      |                                     |  | TANDY    |
|        |            |          | SL     | Report Nov '82                      |  | TANDY    |
| •      |            | -        | SL     | Report Sept '82                     | Cravenanster Ltd, Unit 8, Ind Est. Llandudno Junct, Gwynedd  | UNIOEN   |
| •      | •          | 1000     | FL     | Report Feb '83                      |  | UNIDEN   |
| •      | •          |          | SL     |                                     | Western Electronics, Fairfield Est, Louth, Notts   | WESTERN  |
|        |            |          | FL     | Report Nov '83                      | Westward Electronics. The Mill House, Westward Tuckenhay. Totnes,<br>Davon 086423 336/370  | WESTWARD |

| TX IND. LIGHT | Min Marich | Connews   | BASES 8<br>PORTAE  |           |
|---------------|------------|---|--|-----------|
| X X X         | 4/1        | Com   | ADDRESSES  | NAME      |
| •             |            |   | Telecomms, Portsmouth and Globe, Essex   | AUDIOLINE |
|               | FR         | Report December '83. Also comes with telescopic entenna |  | COMMTEL   |
| •             | SL         |   |  | HAM INT.  |
| •             | FL         |   |  | HARVARD   |
|               |            | External antenna facility                               | Glabe, 188 Brooker Road, Weltham Abbey, Essex                                    | HARVARD   |
| •             |            |   | Telecomms, 189 London Road, North End. Portsmouth                                | KAISER    |
| •             | 0110       |   | A.T.M., AM House, 9A Old & Approach, Tolpits, Lane, Warford, Herts               | MAXCOM    |
|               |            | BUILDER STATE AND   | Tame Way, Tower Bridge Street, Welsall   | TANDY     |
| •             | FL         | Reviewed August '83                                     | Cravenminster Ltd., Unit 8, Industrial Estate, Llandudiso Junction, Gwynedd      | UNIDEN    |
|               | FL         | Report Nov '83  | Westwurd Electronics, The Mill Hause, Tuckenhay, Tatnes, Deven<br>080423 336/370 | WESTWARD  |



The D.T.I. specs for CB antennas are now more liberal than those originally in force, with the base loading restriction removed to permit any type of loading as long as the antenna is 1.65m in length (or less) and no more than 55mm in diameter. This revised checklist now includes the many new antennas released after this change of heart.

|                          | ist now includes the many r<br>sed after this change of hea  |   | CONSTRUC   | HE  | POWIE  | 1   | LOADING   | 1  |             |
|--------------------------|--|---|--|---|--|---|---|--|-------------|
| NAME                     | ADDRESSES  | MODEL   | CON  | LENGTH  | MAX  | TYPE                                      | LOA   | MOUNT  | PRICE       |
| AERIAL SUPPLIES          | Aerial Supplies (Redditch) Ltd. 6 Widney House,<br>Bromsgrove Road, Redditch, Worcs.<br>(0527 52620/60107) | Silver Star<br>Silver Arrow<br>Javelin<br>Javelin Dipole                                      | AL<br>AL<br>AL<br>AL   | 1.5<br>1.5<br>1.54<br>1.64  | 100<br>500<br>500<br>500                             | B<br>B<br>B<br>B                          | B<br>B<br>C<br>C  | Pole<br>Pole<br>Pole<br>Pole<br>Pole   | DEEC        |
| ALLGON                   | Communications, 10 North Straat, Straad, Kent.   | Various<br>466  | FG<br>SS<br>AL<br>SS   | Various   | Various  | B<br>M<br>Marine                          | T C B C/B   | Variou <b>s</b><br>Mast/Cabin  | A-1<br>inc  |
| ARMSTRONG                | Stateside Trading Ltd. Audley Avenue, Newport.<br>Shröpshire   | SAM 10<br>SAM 20<br>TAK 10<br>TAK 20<br>MAG 10<br>MAG 20<br>BDY 20<br>PEC 20                  | 88888888888888888888888888888888888888   | 1.06<br>1.06<br>1.06<br>1.06<br>1.06<br>1.06<br>1.06<br>1.08<br>1.06        | 1000<br>1000<br>1000<br>1000<br>1000<br>1000<br>1000 | N N N N N N N N N N N N N N N N N N N     | 8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8 | Surface<br>Spring Surface<br>Boot lip<br>Spring Boot lip<br>Mag.<br>Spring Mag.<br>Side<br>Side Fold over<br>& Quick<br>Disconnect | +++000000   |
| ARCHER                   | Tandy Corp. Tamewny Tower, Bridge Street.<br>Walsall, West Mids.   | 21-904  | SS   | 0.5   | 50   | м   | B   | % <sup>™</sup> thread  | D           |
| AVANTI                   | CB Radio Centre Ltd., 337 Kenton Road,<br>Harrow, Middlesox  | AV 241<br>AV 241T<br>AV 241M<br>AV 241MM  | \$\$<br>\$\$<br>\$\$<br>\$\$<br>\$\$   | 1.22<br>1.22<br>1.22<br>1.22<br>1.22  |  | M<br>M<br>M<br>M                          | B<br>B<br>B<br>B  | Stud<br>Trunk<br>Mag.<br>Mag.  | OHEG        |
| BANDIT                   | Telecomms, 189 Landon Raid, North End,<br>Portsmouth   | B10<br>B15<br>B20<br>B30<br>B30<br>B40<br>B40<br>B40<br>B50<br>B50<br>B50                     | \$\$<br>\$\$<br>\$\$<br>\$\$<br>\$\$<br>\$\$<br>\$\$<br>\$\$<br>\$\$<br>\$\$<br>\$\$<br>\$\$<br>\$\$ | 1.42<br>0.61<br>1.22<br>1.42<br>1.42<br>1.22<br>1.42<br>1.42<br>1.42<br>1.4 |  | **************************************    | 8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8 | Mag.<br>Mag.<br>Mirror<br>Drill Thru<br>Drill Thru<br>Various<br>Various<br>Various<br>Various<br>Various                          | GFFFEEDDDD  |
| BREMI UK LTD.            | Unit 6. Innage Park, Holly Lane Industrial Estate,<br>Athmstone, Warks.                                    | B27S<br>C27S<br>HB27S   | SS<br>SS<br>AL   | 1.62<br>1.38<br>1.55  | 1000<br>1000<br>1000                                 | M<br>M<br>B                               | B<br>C<br>T   | ⅔" thread<br>⅔" thread<br>Pole   | COM         |
| CB SERVICES              | 97 Crab Lang, Harrogate, North Yorks   | Bullwhip<br>Knuckleduster   | SS<br>AL   | 1.5<br>1.5  |  | M<br>B                                    | B<br>B  | Various  | CD          |
| COMMTEL                  | Near Third Drove, Fengate, Peterborough  | Rocket<br>Shutle<br>Starlight<br>Shutle Star<br>Signal searcher<br>Messenger<br>Signal koeper | SS<br>FG<br>SS<br>AL<br>SS<br>SS   | 1.5<br>1.5<br>1.5<br>1.5<br>1.5<br>1.6<br>1.6                               |  | M<br>M<br>B<br>B<br>B<br>B<br>B<br>B      | B<br>B<br>C<br>W<br>B<br>B<br>B   | W thread<br>thread<br>thread<br>Clamp<br>Fole<br>Clamp<br>Tripod   | ËF          |
| FREEMAN AND<br>PARDOE    | Tything Road, Arden Forest Ind. Est, Alcester.<br>Warks.   | Invader<br>Thunderpole II<br>Thunderpole III  | AL<br>AL<br>A1   | 1.5<br>1.5<br>1.65  | 250<br>500<br>500                                    | B<br>B<br>B                               | 8<br>8<br>C   | Pole<br>Pole<br>Pole   | e<br>F<br>F |
| GAMMA AERIAL<br>PRODUCTS | Lye, Wost Midlands. (0384 891132/891474)   | Skybreaker<br>Avenger<br>Lofty<br>Skybreaker II<br>Avenger II<br>Lofty II<br>Firefly          | AL<br>AL<br>AL<br>AL<br>AL<br>SS   | 1.5<br>1.6<br>1.6<br>1.65<br>1.65<br>1.65<br>1.65                           |  | 8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8 | BBBCCCC   | Pole<br>Bracket<br>Pole<br>Bracket<br>3/2/* threag   | DCDwww      |

#### The Citizens' Band Anter

#### Name

Lists antennas by name and model number and gives you, where possible, the name and address of the manufacturer or distributor.

#### Construction

The majority of home base antennas are made of aluminium and mobile antennas from stainless steel, but fibre glass can be

GE

#### na Checklist will give you the following information:

Type

Loading

used in some models. The list tells you what material the antenna is manufactured from.

#### Length

The legal maximum length of an antenna is 1.65m, base or mobile.

Maximum Power This is intended as a guide

only, as the law only permits an effective radiated power of two watts. The power rating will give some indication of sturdiness. Figure refers to watts.

Indicates whether a mobile

Indicates the type of

or base antenna.

electrical loading of the antenna; top, centre, bottom or continuously wound.

Mount

This gives some idea of the mount or type of mount appropriate for the antenna concerned. Home base antennas are usually pole mounted, but can be house gutter mounted. Mobile antennas are either mag. mounted by a strong magnet, attached to the car gutter or boot lid edge whilst others are physically attached in the same way as a car radio antenna. Mobile antennas with <sup>3</sup>/<sub>8</sub>" thread usually will fit a range of mounts.

| KEY<br>Construction<br>SS — Stainless Steel<br>AL — Aluminium<br>FG — Fibreglass<br>Type<br>B — Base<br>M — Mobile | T — Top C —   C — Centre D —   B — Base E —   CW — Continuously wound F —   Price Bands G —  | £5-£9.99<br>£10-£14.99<br>£15-£19.99<br>£20-£24.99<br>£25-£29.99<br>£30-£39.99<br>£40 plus.  | CONSTRUCTION   | HIE  | MAX POWER  |  | LOADING   | TN TN  | RANGE                                   |
|--|--|--|--|--|--|--|---|--|---|
| NAME   | ADDRESSES  | MODEL  | CON  | LENGTH   | MAX  | TYPE                                   | LOA   | MOUNT  | PRICE                                   |
| нам  | Cognet & Co, Whitegate, 12 Farden,<br>Bitterley, Ludiow,<br>Salop                            | Big Mac<br>Thunderbird<br>Hipower<br>Quatro<br>Sexy  | AL<br>AL<br>AL<br>AL<br>AL   | 9.9m<br>6.5<br>6.5<br>5.0<br>7.5   | 2k<br>2k<br>2k<br>2k<br>2k<br>2k                             | 8<br>8<br>8<br>8<br>8                  | 8<br>8<br>8   | Various<br>Various<br>Various<br>Various<br>Various<br>Various   | HOGGO                                   |
| HOT ROD  | Stateside Trading Ltd. Audley Avenue, Newport,   | FM UK  | SS   | 1.27   | C I III I I I  | M                                      | В   | %" Thread  | El                                      |
| LES WALLEN MANF.   | Pembroke Works. Ramsgate Road, Sandwich,   | Modulator LC<br>M.D.X. Long<br>M.D.X Short<br>Mini M.D.X.<br>Mini 27<br>T-Bolt<br>Saturn<br>Exper  | SS<br>SS<br>SS<br>SS<br>SS<br>AL<br>AL   | 1.65<br>2.00<br>1.65<br>1.10<br>1.40<br>0.83<br>1.00<br>1.00   | 1000<br>1000<br>1000<br>100<br>500<br>200<br>500<br>1000     | M<br>M<br>M<br>M<br>M<br>B<br>B<br>B   | B<br>B<br>B<br>B<br>B<br>B<br>B<br>C<br>W<br>C  | " Thread<br>" Thread<br>" Thread<br>" Thread<br>" Thread<br>" Thread<br>Pole/wall<br>Pole/wall   | CCCBBBDF                                |
| MARKSMAN   | Marksman Products. PO Box 40.<br>Milton Keynes MK6 2UT (0908 658916)                         | Mister Stick   | SS   | 1.19<br>1.63   | Above<br>logal   | м                                      | С   | ¾"UNF  | D                                       |
| R.W. BADLAND LTD.  | Roetan Trading Estate, Providence Street, Lye,<br>Stourbridge, West Midlands (Lye 3160/5051) | Rebel 1<br>Robel II<br>Rebel Raidor<br>Rebel Bullet<br>Red Devil   | SS<br>SS<br>SS<br>SS<br>SS   | 1.5<br>1.5<br>1.6<br>0.61<br>1.52  | 500<br>500<br>500<br>50<br>50<br>50<br>500                   | M<br>M<br>M<br>M                       | 8<br>B<br>C<br>B<br>CW  | " Thread<br>" Thread<br>" Thread<br>" Thread<br>" Thread   |   |
| REVCO  | Telecomms. 189 London Road. North End.<br>Partsmouth   | Revco  | SS   | 1.0  | 100  | м                                      | B   | Various  | в                                       |
| ŞMC  | Rumbridge Street, Totton Street, Hants   | Oscar CBA 11GP<br>Oscar 11V11S11<br>Oscar 11CM<br>Dscar 11CE<br>Oscar 11CE<br>Oscar 11SE<br>Oscar 11ZE   | 85<br>55<br>55<br>55<br>55<br>55<br>55   | 1.5<br>1.5<br>1.2<br>1.2<br>1.5<br>1.5   | C.L.   | B<br>B<br>M<br>M<br>M<br>M<br>M        | 8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8 | Mag.<br>Foldover Base<br>Pull up<br>Foldover Base  | FFDCCCB                                 |
| TAGRA  | CB Radio Centre, 337 Kenton Road,<br>Middlesex   | T40  | \$5  | 1.4  | 500  | м                                      | в   | Various  | E                                       |
| THORO'8RED   | Pixtron UK Ltd, 10 Victoria Street, Newark,<br>Notta (0536 74658 Telex: 377027)              | Z 27<br>Z Mag<br>251   | \$\$<br>\$9<br>\$\$  | 1.52<br>1.52<br>1.60   | 1700<br>1700<br>100  | M<br>M<br>M                            | 8<br>8<br>8   | %" Thread<br>3" Oia Magnet<br>5" Dia Magnet  | BCC                                     |
| VĂLOR  | W.T.A. Electronics Ltd. 111 Cromer Road.<br>Heliesdon, Norwich (0603 47694)                  | Warrior 650<br>Half Breed 520<br>Half Breed 510<br>Half Breed 500<br>Dial-a-Match 540<br>Dial-a-Match 530<br>Rubber Ouck 300<br>Pro Am PLB 27<br>Road Hog 338<br>Road Hog 338<br>Road Hog 338<br>Road Hog 336<br>Road Hog 836<br>Road Hog 836<br>Road Hog 836<br>Black Megic 333<br>Black Megic 333<br>Black Megic 333 | SS<br>SS<br>SS<br>SS<br>SS<br>SS<br>SS<br>FG<br>FG<br>FG<br>FG<br>FG<br>FG<br>FG<br>FG<br>FG<br>FG<br>FG<br>FG<br>FG | $\begin{array}{c} 1.52\\ 1.62\\ 1.2\\ 0.9\\ 1.2\\ 0.6\\ 1.52\\ 1.52\\ 1.52\\ 1.75\\ 0.6\\ 0.9\\ 1.2\\ 1.52\\ 0.76\\ 1.2\\ 1.52\\ 0.76\\ 1.2\\ 1.52\\ 0.76\\ 1.2\\ 1.52\\ 0.76\\ 1.2\\ 1.52\\ 0.76\\ 1.2\\ 1.52\\ 0.76\\ 1.2\\ 1.2\\ 1.52\\ 0.76\\ 1.2\\ 1.2\\ 1.52\\ 0.76\\ 1.2\\ 1.2\\ 1.52\\ 0.76\\ 1.2\\ 1.2\\ 1.2\\ 1.2\\ 1.2\\ 1.2\\ 1.2\\ 1.2$ | 1500<br>1500<br>1500<br>1500<br>1500<br>1500<br>1500<br>1500 | 22222222222222222222222222222222222222 | CBBBBBBCBTTTTTTTTTTTTTT   | Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread<br>Thread | 000000000000000000000000000000000000000 |
| WTA  | W.T.A. Electronics Ltd. 111 Cromer Road,<br>Hellesdon, Norwich. (9603 47694)                 | Wot Pole 1<br>Wot Polo II<br>Wot Stick 1<br>Wot Stick II   | AL<br>AL<br>SS<br>SS   | 1.5<br>1.5<br>1.5<br>1.5   | 1000<br>1000<br>1000<br>1000                                 | B<br>B<br>M<br>M                       | B<br>B<br>B<br>B  | Pole<br>Pole<br>% Thread<br>% Thread   | B<br>C<br>A<br>B                        |
| VAN ORDT   | Knight Communications, Unit 19 Brittania Estate,<br>Leagrave Road,                           | Audio King   | 55   | 1.5  | 2000   | м                                      | в   | %" Thread  | G                                       |

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