

The New Radio Active ...

CB

CITIZENS' BAND

May 1996

S.O.R. £1.95

Global Positioning Satellites

What they can do for you

Trafficmaster

How radio can help beat those delays

How I began in C.B.

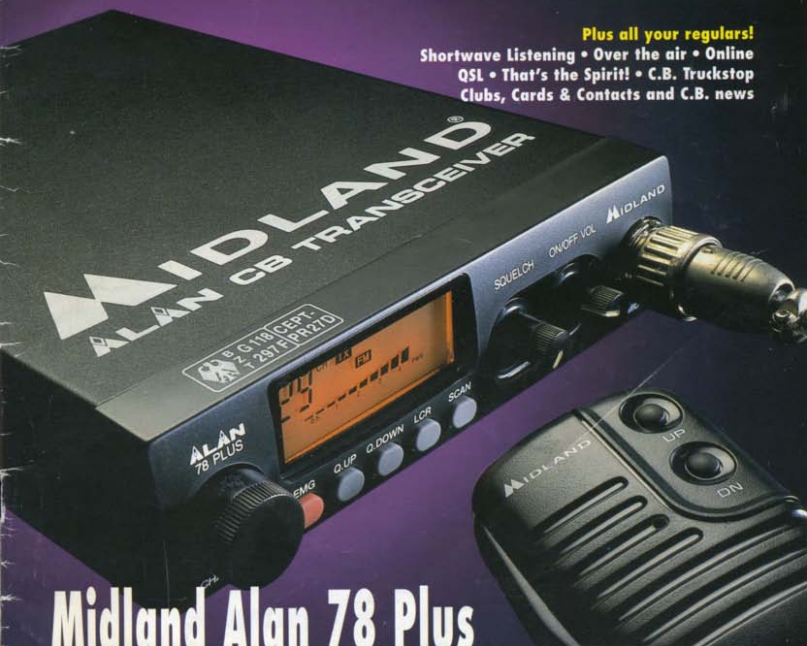
The start of a new series

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Shortwave Listening • Over the air • Online
QSL • That's the Spirit! • C.B. Truckstop
Clubs, Cards & Contacts and C.B. news



Midland Alan 78 Plus Reviewed!



High Quality Scanning Receivers

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A superior 400 channel handheld from the Uniden stable, offering a near continuous coverage from 25 - 550 MHz and 760 - 1300 MHz. Reception modes include AM, FM and Wide FM, user selectable (FM & WFM only on the upper bands). Accessories included - belt-clip, earphone, case and flexible antenna together with 240V AC adapter/charger.

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- 200 memory channels
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The UBC 220 XLT is an easy to use scanner with 200 memory channels. Includes 10 band coverage, automatic search, priority channel and selective scan delay. Display light, automatic lockout and direct channel access. Also includes Belt clip, earphone case and flexible antenna accessories.

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UBC 120XLT

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A new compact designed handheld featuring Twin Turbo Scan & Search. Channel lock-out and unique data skip facility are also included. Complete with NiCad battery and charger, belt clip, earpiece and rubber duck antenna.

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UBC 65XLT

- 10 memory channels
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NEW!



UBC 9000XLT

- 500 memory channels
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The 9000XLT features Twin Turbo scan & search modes with 10 user definable priority channels. User selectable modes covering AM, FM and Wide FM modes. Selectable receiver attenuator, delay and data options are available direct from the keyboard. For unattended operation the 9000XLT has an automatic tape recorder ON/OFF and tape output feature!

Price £325.00

NEW!



UBC 860XLT

- 100 memory channels
- Freq. coverage: 66 - 88, 108 - 174, 406 - 512, 806 - 956 MHz

A stylish designer base station scanner which offers 100 memory channels and a 12 band coverage including 800MHz. Features Uniden's patented TWIN TURBO scan and search facility. The BCB860XLT covers all of the most popular bands including the Amateur VHF and UHF bands, Civilian Airband, Marine & PMR, plus the high UHF 800MHz band.

Price £139.00



All of the Uniden Scanners are now CE approved

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Front cover illustration - Midland 78 plus

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Active
Publications

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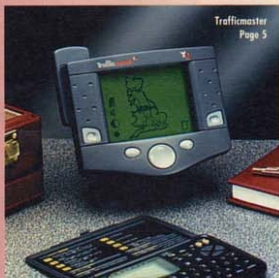
Editorial

We're going global in this issue of C.B. Magazine. From the fascinating world of G.P.S. navigation to the exotic sounds of the tropical bands of short wave listening.

Don't worry, we haven't forgotten about C.B. radio, as a range of features, columns and regulars include a rig review, stories of how people caught the radio bug, QSL and club contacts, the story of the C.B. vicar and a report on the first 25 years of Sharman's Wholesale!

We also open up our interference workshop to help you identify and solve those interference problems.

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CB Labs review
Page 22



Don't forget to have a go at our Air Show competition as we have tickets worth £600 up for grabs.

Last year, one of the winners described the day at the R.A.F. airshow as the best day of their lives! This year, it could be you! Finally, please remember that C.B. Magazine is your magazine. If you have a C.B. tale to tell or know of how C.B. is being used in an unusual way, then please drop me a line.


Tony Hetherington
Editor

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The Trafficmaster Information System

Motorways

A Roads

In the 1980s, Trafficmaster set up the U.K.'s first information service, dedicated to the motorist on the nation's motorway network. The first terminals required the consumer to sign a binding contract, but now it is easier to use the network, and not so expensive to log on to the service.

Initially the service only operated on The London Orbital Motorway, the M25, and nearby motorways. Now it is claimed to be on every U.K. motorway and on over 400 miles of trunk A roads!

Here is the equipment currently available for you to buy.

TRAFFICMASTER YQ

During early 1995, Trafficmaster plc, introduced a new easier to operate traffic information system. This follows on from an earlier, more contract bound system, and is marketed through many High Street electronic and motor accessory outlets.

This system is known as Trafficmaster YQ, and to relieve the consumer from long commitments, it is just a case of buying the equipment and then replacing the electronic keys as they expire. The terminals work practically anywhere in mainland U.K., but only give reports of motorways and just over 400 miles of A roads, but this is expanding.

The Equipment

Trafficmaster is no more than a microcomputer terminal connected to a digital radio receiver, all neatly combined in a smart little display unit. The control centre transmits data by radio, and each receiver then stores this data in its memory. Data is also updated by low power transmitters at the side of motorways.

The small video screen shows the outline of the country, and the operator of the terminal can then observe what part of the Motorway network he or she wishes to review, and then plan accordingly for the journey they wish to make. It does appear to me that the appearance

is similar to a small television, and although I found the information is very accurate, is it legal to have it operating in view of the driving seat?

The whole terminal is powered by dry cells or external power pack which means that you can use it wherever you are. If you find that you will not be on the road for a few months, there is no need to pay for another key, until you need it again.

In use

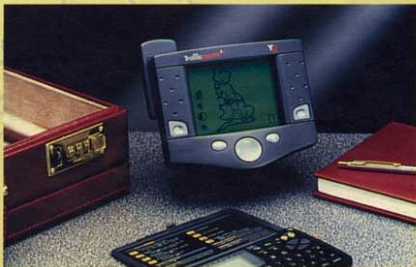
Personally, I found that it was better to monitor it when at a service station or at a rest stop. A passenger planning a route from the data sent and stored, is much safer.

Each terminal can be used as a pager, and it costs nothing to the terminal operator for this additional service. The cost of operating the paging service is levied on the phone call to send a message. Another service is weather reports and news headlines, neither of which I used in the time of the loan period of the terminal.

Accessories

Power leads, power units and stands are available so operation could be at home or in

Len Over reviews two devices that provide live radio controlled travel information to help you beat those traffic delays



the office.

Ideal uses

1. This would make the ideal complement to Band Three Radio, where the traffic office could monitor the motorway network, and inform a driver if a problem is in front of him, thereby helping him to avoid the problem. Drivers could radio in for updates as they wanted them.
2. Coach operators where a courier on board could take a few glances to see if there is a delay ahead.
3. The Police, who on Traffic Patrol Duties, are usually double manned, and if alerted could investigate, often before their control is informed by the usual 999 or motorway phone call.

Pros

- Accurate information
- Handy paging service
- Does not have to be installed in a vehicle.
- Subscription costs paid in advance with an electronic key
- No need to buy the key immediately the previous one expires

Cons

- I personally found the screen a distraction when driving
- Does appear to run the batteries down very quickly, a power supply is a must

Prices

- The Terminal itself: £149.99 including a one month key.
- Replacement keys cost £60 for six months and £110 for one year.

Conclusions

A very smart piece of technology. If you do not have a mobile phone or pager then I think this could be the ideal item to keep in touch, with traffic reports and people who wish to send you a message. For a private motorist, unless you have money to spare, then information of road conditions between Glasgow and Edinburgh, would be of no use whilst in Somerset. Unless it was a very extreme problem that would be there on arrival in that area of Scotland, and then you would have heard of it on broadcast radio.

Trafficmaster



Trafficmate - How it works



Information on traffic flow is gathered from a network of over 2400 infra-red, bridge mounted sensors, which monitor the speed of traffic. When the speed drops below 30m.p.h., the system alerts the National Traffic Data Centre in Milton Keynes by radio

This information is instantly sent out to over 1500 local transmitter stations throughout the country's motorway network

Each transmitter has a unique ID code and is capable of filtering all traffic information relevant to its location and translate it into coded messages. These messages are transmitted to the Trafficmate via a local radio signal. These are broadcast to the user as verbal messages.

TRAFFICMATE

At the end of 1995, Trafficmaster introduced the baby brother of their network, and this is called Trafficmate. The difference with this terminal is that it is cheap to buy and cheap to operate.

The Equipment

A small grey unit, that would fit in the palm of your hand, and is powered by four AA batteries, and is held on the car dashboard by two velcro strips. On the front of the unit facing the driver is a small almost see through lens, which has two lights behind it, one red and one green.

In Use

Once installed in its position on top of the vehicles' dashboard, the driver needs to just push down on the lens to switch on the unit. The Trafficmate will greet the driver with "welcome to Trafficmate" in a digital voice from the small loudspeaker.

It has two operational modes, one manual and the other automatic. As you approach a motorway with the unit in automatic mode, it will emit a tone and the green light will flash once if the motorway and any interconnecting motorways are clear of problems in the next ten miles. If there is a delay in the next ten miles, the unit will digitally speak to you, and describe where the delay is. The data is updated about every two miles as you approach another mini transmitter at the side of the motorway. In the manual mode the only signals you receive is the flashing of the lamps. A green lamp is as expected a clear motorway route for about ten miles, and on getting a red flash, the driver just presses down the lens, and the message will be given as if in automatic mode.

After about two miles on the motorway

system, (after the second tone emitted or green flash) on pressing the lens you will be told the next junction on the motorway, and in what direction you are travelling. The Trafficmate automatically turns itself off after not receiving any data sent to it, or the lens has not been pushed for 30 minutes.

Accessories

Extra Velcro strips, so it can be used in other vehicles.

Ideal Uses

Any motorist, especially those who use the vehicle regularly on the motorways.

Pros

Easy to use
Cheap to buy and use

Cons

Takes a while to understand the female robot type voice.

Despite national radio adverts claiming that, the Trafficmate does work on all the U.K.'s motorways I found some gaps. It does however, cover all the main motorways though so check the coverage you need before you buy..

Prices

The Trafficmate itself is £49.99 including the first 12 month key.
Annual replacement keys
£24

Conclusions

Very good, in price and performance and it is very safe to operate from the driving seat. I would recommend Trafficmate to anyone.



The Traffic mate unit with an access key



The Traffic mate in use



Win Ticket

“It was the best day of my

That's how one of the winners of last year's Air Show competition described a day at the International Air Tattoo.

Now you have the chance to win one of 15 pairs of tickets to the Silver Anniversary Air Show!



THIS year marks the 25th anniversary of the first International Air Show which also coincides with the 60th anniversary of the Spitfire's maiden flight. On that day, the chief test pilot "Mutt" Summers said "don't touch a thing" and was proved right as the Spitfire soared to fame during the Battle of Britain. At this year's show a top display pilot will ensure the Spitfire is one of the stars of the show.

Another anniversary aircraft that took off is the Harrier Jump Jet that is now 30 years old. Up to 12 Harriers will complete in a mock battle at the Tattoo.

An important milestone reached this year is that the Tattoo has raised over £3 million for the R.A.F. Benevolent Fund.

The 15 winners of our competition will receive a pair of adult tickets worth £20 each (accompanied children under 15 are free) and will enjoy an amazing day out as up to 400 aircraft from 35 nations, including the incredible Red Arrows, fly to R.A.F. Fairford in Gloucestershire for July 20th and 21st.

Add to that a mass release of 40 multi-coloured hot air balloons, the show's own radio station Wings A.M. and craft fairs and a collection of virtual reality rides and a memorable day is all but guaranteed.

To The Silver Jubilee Air Show!

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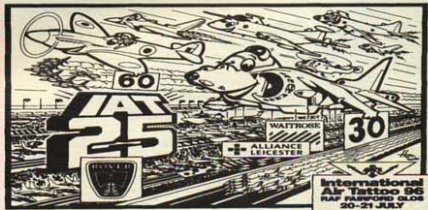
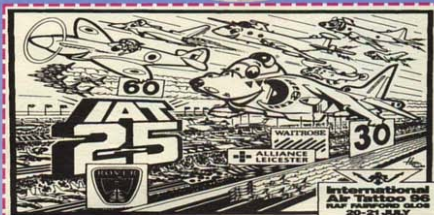


How to Enter

All you have to do is use your skill and judgement to find the ten differences between the two cartoons. Mark them on the bottom one and send it and the filled in coupon direct to the-

R.A.F. Benevolent Fund at DEPT IAT 739

Entries must be in by 25th May. *Good Luck!* If you can't wait to see if you win you can buy tickets for the Tattoo from branches of Waitrose and the Alliance & Leicester or by calling the ticket hotline on 0891 122997.



Send entries to DEPT IAT 739, Silver Jubilee Airshow Competition, RAF Benevolent Fund Ents, PO Box 1940, Fairford, Glos GL7 4NA

I am aged 18-30 [] 31-46 [] 47+ [] 51+ []

DATA PROTECTION ACT 1984. From time to time the Royal Air Force Benevolent Fund Enterprises may wish to send you details of other events and services which they feel may be of interest to you. Please tick the box if you do not wish to receive this information. []

Name (Mr/Mrs/Miss) _____

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Top of the range radio with outstanding modulation & receive performance

- Up/Down mic control • Channel 9 • Power mic
 - Tone switch • CB/PA switch • External speaker socket
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Minicom

A professional style CB handheld with full 4 watts output.

- Scan facility • Up/Down mic control • Channel 9
 - Cigar adaptor cable • Battery save
 - 5 meter • External mic socket
- £149.95 p&p £6.00



Maxi 3000

Team's latest handheld with new stylish easy to hold shape & outstanding performance.

- Up/Down mic control • Professional styled case
 - BNC rubber duck antenna • Channel 9
- £89.95 p&p £6.00



TS 1000

A miniature radio with streamlined features that is easy to use with up and down channel controls from the microphone supplied.

- Up/Down mic control • Channel 9
 - Electric mic • External speaker socket
- £58.00 p&p £6.00

Available from dealers throughout the UK

UK Distributor:- Nevada, 189 London Road, North End, Portsmouth, PO2 9AE.

Retail (01705) 662145 - Dealers Only (01705) 698113 - Fax (01705) 690626

IS NEW NEWS NEWS NEWS

SHARMANS - 25 YEARS OLD!

THIS year marks the 25th year in business for Sharman's Wholesale and its growth from a cash and carry outfit in 1971 to one of the main dealers not only in C.B. but also amateur and professional radio.

The company was first started by Mr and Mrs L. N. Sharma and imported low end goods such as watches and umbrellas. By 1977, their sons Murlil and Nari had joined the company to add extra manpower and to branch out into other areas.

These included consumer electronics such as radios, in-car stereo and a range of telephones.

In 1978, the company noticed a growth in demand for C.B. radio due to the release of films such as "Smokey & the Bandit". Cleverly, Sharman's avoided the long arm of the law by refusing to stock the then illegal radios, instead they simply sold C.B. accessories. This proved to be very successful and allowed Sharman's to be ready and very able to fill the demand when C.B. was legalised in 1981.

In 1983, Sharman's Wholesale was split into two companies as the C.B. boom had taken it away from its cash & carry roots. A separate company, Sharman Imports Ltd was set up to concentrate on cash & carry while Sharman's Wholesale has continued as a fully fledged importing and distributing company for a range of radio communications.

Congratulations on your first 25 years in the radio business - we look forward to celebrating your 50th!



Charity auction

In an unprecedented charity event, members of the Romeo Whiskeys of Warrington raised over £1,500 in a charity auction.

The auction was to help a sick child called Emma realise a dream - to be kissed by Mickey Mouse in Disneyland. Emma has an unenviable collection of diseases including the muscle wasting disease congenital myopathy, brittle bones, asthma and scoliosis. Her father had died two years ago from a heart attack and her mother had already had two tumours removed.

Once the group had offered to help Emma, they were amazed by the response and the reaction of the breakers of the North West. Companies, including the C.B. Shack and Penketh Electronics donated goods to be auctioned in a 12 hour marathon that was held on Channel 25 on the 2nd of March. Gaynor and Peter of the group wrote to C.B. Magazine, "the most important thing we received was the love and support from the people, we have never known an appeal to bring so many people together, the channel was alive that evening".

If you would like to help a sick child realise a dream, then drop a Gaynor a line at P.O. Box 50, Warrington, WA1 4BY.



Hospice appeal

Dennis and Vincent Spratt will set off on an epic journey at 7am on the 2nd of June. Their objective is to drive from Land's End to John O'Groats and back again! Their aim, to raise £2000 for the Mount Edgcombe Hospice through a combination of sponsorship and donations.

Throughout the journey, which they hope to complete in five days, they will operate a C.B. station on U.K. Channel 30 under the callsign of Charlie Hotel 13. Each contact made will receive a special certificate so listen out for them in early June.

Cheques can be sent to the "C.H. Hospice Appeal", Midland Bank, Camborne. In the next issue we hope to print a contact address so that breakers can send a donation and a S.S.A.E. to receive their contact certificates.

C.B. trip to amateur rally

The South Downs Way, Radio Group is organising a coach trip to the Longleat Amateur Radio Show on the 30th of June. The C.B. group has booked a 54 seater coach and offers places to enthusiasts and their families for £10 per adult and £5 for children over 10. For more details and availability drop the chairman Bert a line at P.O. Box 45, Waterlooville, Hants, PO7 6RA.

**London
Amateur Radio
Show news
page 13!**



LOWE ELECTRONICS Ltd

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Lowe Electronics are the country's leading distributor of Ham Radio, Scanners and Short Wave products. We supply everything from the mains plug to the antenna and everything in between! We sell and support all major marques including Kenwood, Yaesu and Icom, plus relative new comers like Alinco and ADI. You can come to us for HF, VHF and UHF transceivers - all shapes and sizes from base stations through to mobile and handhelds. We've also got a full range of accessories including heavy duty power supplies, linears, test gear and antennas from famous names like Chelcom, Butternut, Bencher, Hy-gain, Vargarda and many others. We are also the UK leaders in amateur radio datacomms, being distributors of the Kantronics range of powerful data products. For more details, just ask for one of our ham radio information packs - choose from HF, VHF, Antennas or DataComms.

On the scanning front we are AOR and Yupiteru main distributors and offer a complete range of additions from wideband discone antennas to advanced computer control software and interfaces. We are specialists in the field of airband radio and even produce our own software product for decoding ACARS signals transmitted by aircraft allowing the aircraft enthusiast to collect tail numbers, callsigns and other flight data. Our bumper airband pack has full details. We've just been appointed distributors for WinRADIO - the exciting new PC card scanner that fits in your computer - that's going to change the way we look at radio!

We are the recognized leaders in the world of short wave radio and our own Lowe short wave receivers are internationally regarded as being market leaders in terms of performance and value and are sold all over the world. In addition, we are distributors for high quality receivers for Japan Radio Co and Watkins-Johnson from the USA and the excellent short wave antenna systems from RF Systems in the Netherlands. Our range of shortwave related computer products includes advanced control and decoding software for weatherfax, Morse code and RTTY signals. Just ask for our Short Wave Pack or Decode pack for full information.

Our accessory range is growing all the time and something a lot of our customers are latching onto is GPS systems - get our GPS information pack and you'll never be lost again!



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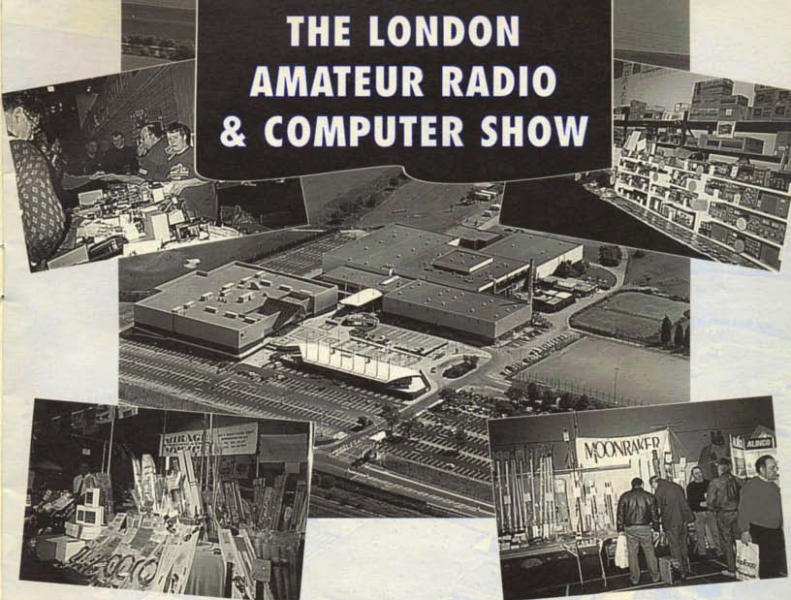
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THE LONDON AMATEUR RADIO & COMPUTER SHOW



THE London Amateur Radio & Computer Show celebrated its 7th year at the Picketts Lock Leisure Complex in North London. The show is organised by Radio Sport in co-operation with the Southgate Amateur Radio Club and this year was attended by over 7,000 enthusiasts.

There were three large halls holding 600 tables of exhibits which this year featured a special section devoted to vintage radio and sound exhibitors. The displays included everything from old Wurlitzer juke boxes through to 1960s style domestic radios. Each year, more and more C.B. dealers are attending the show - C.B. Magazine's Marcia Brogan talked to some of them.

Charles Godfrey of Moonraker U.K., who manufacture a complete range of C.B. aerials, was at the show for the first time and was surprised by the high level of interest considering the event was advertised as an Amateur Radio Exhibition.

Ken Baldwin of Mirage Communications, another antenna manufacturer, was there for the second time. His stand was filled with every kind of mobile and base antenna for both C.B. and Amateur Radio.

Amongst the crowds, Marcia bumped into Len Over, writer of the Truckstop column in C.B. Magazine. Len told her that he has been to almost every show. "It's a good place to find all those rare C.B. bits - and to pick up the latest industry gossip!"

Rose and Norrie from Tennamast (a new C.B. Magazine advertiser) were showing their 25' and 33' basic masts. They told Marcia that

as a result of the huge response to their first advert in the magazine they will now market a special version of the adapter mast that is able to take all brands of C.B. base antenna. They expect to sell the new mast at around £233. Andy Padden of Hi-tech (AJP) is another show veteran. He had a large stand with a huge selection of C.B. accessories and radios. Andy has been in the business for more than 22 years and boasts the ability to fix almost any brand of C.B.!

Nevada had their usual stand displaying scanners, Amateur Radio equipment and the latest C.B. rigs including the Team hand held reviewed in the last issue.

The show included a large Bring & Buy stall where secondhand equipment could be picked up at reasonable prices. There were a surprising number of C.B. radios for sale - some more than 10 years old!

An undoubted attraction of the London Show has been the expansion of the leisure complex itself. Facilities now include a multi screen cinema, an adventure trail for children, swimming pool, creche facilities and several large cafeteria and bar areas. The family can be left to enjoy these facilities while Dad or Mum takes a hasty look around the exhibition. For the first time the organisers announced a new one day event to take place on 16th November this year - they are hoping to keep the costs of exhibiting to a minimum so as to encourage the smaller C.B. dealers to attend. Not a bad idea since we have no U.K. C.B. exhibition at the moment.

For those who have not been, we can thoroughly recommend the show, with its wide variety of interesting displays. Next year's London Show will be in the second week of March. ☺



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SHARMAN'S WHOLESALE



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C.B. TRUCK

STOP

I start this month with my regrets of hearing the damage done to the new home of the Radiocommunications Agency, with a terrorist device a few weeks before I started this article. I do hope despite the damage, no one was injured, and if anyone was hurt I wish them a speedy recovery.

Scanners

Since last month I have bought a "scanner", with the intention of listening to the 934 C.B. band. To my disappointment I have not heard one conversation, although the frequencies nearby seem very busy. What I cannot understand is how anybody can sit and listen to the nearby use of radio around 934, certainly not my cup of tea.

Buying this scanner was not a waste of time and money as I have found listening to licensed, novice and pirate amateurs very interesting.

Many of the Novices I have heard are lorry drivers, all of them on C.B., and I am starting to believe they have taken note of my suggestion, that novice licences, truck driving and the amateur U.H.F. repeater network are just the job for good communications. Perhaps this might upset the men at the Radio Society of Great Britain, as the repeaters were not put there for hoards of truck drivers. Perhaps, we'll soon hear new phrases such as "Do you copy me good buddy G4ABC"? I'm sure this will upset some of the older hams.

In this year's March edition, we were given a great article by Brian Kendal concerning call signs. I have often thought that some sort of self regulated call sign plan should be drawn up within the present groups. With the new scanner I also found that many amateurs did not use their allocated call signs as well as some pirates that seem to be accepted in Hertfordshire.

I was very excited to find a station using the new "M" prefix. However, an amateur friend of mine soon knocked me down when he pointed out the frequency was not allocated to amateurs, and the station I heard was in fact The London Fire Brigade. That frequency was immediately wiped from my scanner.

Installation

Many companies in the road transport industry are now insisting that C.B. radios installed in their lorries must be electrically installed by the company's own fitters or auto electricians. The

reason for this is that anything installed incorrectly could burn out the trucks' wiring. Since many trucks now use computers to control the transmission system these mistakes could be expensive. Indeed the company I worked for in 1988, blamed a poorly installed C.B. radio for the failure of the Electronic Power Shift in a seven month old Mercedes 38 tonne lorry. You cannot blame these companies for introducing a few rules can you?

More and more firms are asking drivers to produce their C.B. Licence, with photocopies kept on file, so that reminders can be given to drivers when their licence is due for renewal. I was once told that when anything is installed and fitted in a vehicle, it becomes part of that vehicle, therefore any infringement involving radio laws could land the owner of the vehicle (the company) in court. Some circumstances, such as an illegally imported rig being installed, might involve a confiscation of the whole vehicle. Very few companies would continue your employment after that!

Only the other night, it was nice to turn on the rig and speak to mobiles going through my North London location. I've been mainly office bound recently, so I have missed out on my regular chats with the C.B. fraternity.

Len (Long Vehicle) presents more for mobiles & a competition for you to enter



Listening at home, I could hear The Blue Buggs on their way home to Essex on channel 11 and a similar group pushing their way through South East London to Kent was on U.K. Channel 23. Tesco Harlow drivers were debating about their wages on Channel 8, and I was starting to think that our radio channels were at last being used properly. Then it started.

A male station in New Southgate, about four or five miles away fired up on a C.E.P.T. channel, and spoiled practically everything I heard. All my rigs are possibly the best for rejecting adjacent channel bleedover, but this station was picked up all over the U.K. channels. Because of this, some of the local youngsters started to give some abuse to stations they thought were causing the problem. Not everyone has C.E.P.T. channels, that is why these youngsters could not find the culprit. I eventually found the offending station, but when I pointed out the problems caused to others I was given the usual excuse. "I've got a licence, I only give out four watts". It was obvious his radio was not on the required technical specifications, and it was well over the legal deviation level. It is people like this that often cause others to misuse C.B. radio. Do you suffer greedy people like this in your area?. I hope you don't.

Revcom

Last month I told you of the "advert" for Revcom on Ceefax Page 726, on B.B.C. 2. Well, after a chat with Pat up there in Coventry, and with the paperwork done, I am now a proud member of the Warwickshire team. I have belonged to other groups before, and it was in this magazine that I proposed a national C.B. network named CiBaNET, I have decided that Revcom is the group for me to join.

You might ask, "What is that stupid Londoner doing joining a Midlands team?" It is quite simple; shortly I hope to have a team running in the North London area, and at the moment I will give Revcom all the assistance I can. If any of you would like to get involved in my area please contact me, and I'll give you all the details. For the proposed team, North London is only a rough outline. Members would also be welcome in South Hertfordshire and East London. I have made up a name for a local team, which will be published when it is

officially off the ground.

How far have I got? Well a few C.B.ers have taken an interest, and I have spoken to a local councillor to test the reaction of my local authority. The response has been encouraging.

If anyone is considering forming a team in other parts of the Greater London area, please drop me a line, as the name I have proposed could be used in a similar way in other parts of The Metropolis area of London and surrounding counties.

Call cards

When you are out mobile with your C.B. radio, there are times when you have to make a landline phone call to someone. You find a phone box, and it is a phonecard box, or if it is coin operated, you have only a pound coin to make a ten pence call. Yes, the thought of giving British Telecom ninety pence for nothing is really a nightmare. Well those days are now numbered if you buy one of the new privately operated phone cards.

These new cards are purchased over the counter in any shop that wants to sell them. When you buy the card it must be in a sealed wrapper, and are available in units of £5 up to normally £20. To make a call, all you have to do is dial the free 0500 or 0800 telephone number on the card, after the prompt dial the P.I.N. on the card, and then the full phone number, including the area code. The cards' value will be deducted as you use the card. A national U.K. call is usually 10p per minute, this is including V.A.T. I even use one of these cards through my PCN Mercury mobile phone, as I would pay 10p or 25p plus V.A.T., depending the time of day, direct dialling on the mobile network. Being prepaid, there is no nasty bill to come, which is just as well as a mobile phone is similar to C.B. radio - you just want to keep talking.

Faxed!

I have been going on for quite some time about having a fax machine installed. The idea is so any reader can scribble a note, send it to me over the phone line, and then I can respond as required.

I was told in 1993, that my estate would be cabled in four weeks, and repeatedly given that answer until July last year. Then I was told "yes we can now give you service in three years time!" I hit the roof. Since I work on my own, being the top of my empire, I



C.B.'s 15th Birthday

On the 2nd of November this year, Citizens Band Radio will be 15 years old in the United Kingdom. I know some of you were into the use of illegal C.B. before then. So don't you think there should be a form of celebration, on that day? Perhaps a day of sponsored transmissions, from all parts of the U.K. These transmissions, known as "Meds" this being short for modulations, were a common fund raising exercise on C.B. in the early days, and much was raised for good causes. Being on the nearest weekend to Guy Fawkes day, perhaps an eyeball and fireworks display etc. might be the ideal thing to do, alongside any sponsored event. Whatever you might think or plan, please let me know.

decided to contact my opposite number the Managing Director of this particular telephone company. Things then did move, I got phone calls at least once a week on my mobile, that promised service around last Christmas.

After Christmas, I was promised connection by the end of February.

On the 13th of February I was told, "yes the circuits are live it will only take a day to put the duct way in, you will have your line".

Being a Leap Year was in their favour, so on the 28th I phoned them, to be told "Oh yes your address is in our area, but in the planning stage - could be months away!"

I hit the roof so hard this time that I nearly landed on the Moon, but this time I was armed with information. During my conversations with the telephone sales department, I often overheard others in the background, shouting out various names of staff and their telephone extension numbers, and it was handy that I took note of many of them.

With the knowledge that their head office had a switchboard, with a system called direct dialling in (D.D.I.), I just replaced the last 4 digits of the phone number with the extension number, of someone I knew would know how to chase things up.

Now, I have been told that my fax installation is just a few weeks away. When this finally happens I will be publishing all means of contacting me, phone, fax, mobile phone and the old Royal Mail. I am just hoping next month I will be up and running. I don't believe I will be, would you?

Your calls

On the phone recently I have had a few calls from some of you, regarding taking PR 27 GB rigs out of the country, and whether you can use them abroad. Well the way I understand it is, that although newer specifications regarding these channels are now in force, older rigs can still cross over to France and beyond, as long as you are in a country that is indicated on your C.B. Licence, and of course you must be in possession of a valid C.B. Licence. Taking a U.K. channel rig is not really permitted, but I have taken one on many occasions, but always disconnected it at border crossings.

Many thanks to Mike (Traveller) in Rochester, who started to tell me about one of his local companies who use C.B., when he was called away because he had "call waiting" on his landline, I waited for his return in vain. Please call again Mike because your news seemed very interesting.

A call from Tyne and Wear told me of a young lady, handle Star Lady, who delivers motor spares around North East England in a Renault van, and cannot keep off the rig.

C.B. news for mobiles has seemed to be quiet at the moment, but as the weather warms up, and the mobiles come out the mobile scene will soon hot up. If you are a mobile C.B.er,

why don't you send me a photo or two of your car, van, truck etc., and perhaps your pride and joy might be published in this magazine.

Swindon, to me in London,

is the "Gateway to the West" and on a recent run down to Cardiff, I was pleasantly surprised with the professional traffic assistance on U.K. channel three and sometimes on 19 in the Swindon area. This set up in Swindon appeared to be a team of C.B.ers, and the information given was very accurate. If anyone knows who they are, I would be very grateful for any details to pass onto others.

Competition

A new feature in this column that will appear every now and then, is a small competition for you the readers. In the first of these competitions, the prize will be a good quality S.W.R./Power meter.

Right, on with the competition, just jot down your answers on a postcard, and send to the usual P.O. Box Number.

1. With a valid U.K. Citizens Band Radio Licence, what is the smallest country in the world, where you can use C.E.P.T. C.B. radios?

2. What is the title of the Head of State of that country?

3. What are the main colours of that country's national flag?

4. Are there more male or female breakers resident in that small country?

5. What is the abbreviation for this country, in the list of foreign countries on your C.B. Licence stating where you can use your rig?

This competition is open to any reader in the United Kingdom, local off shore colonies or the Republic of Ireland. It is not open to anyone connected in the compilation of C.B Magazine, its publishers or any company associated with the publishers, Radio Active Publications.

All the correct entries will be put in a drum, and drawn on June 6th. Hopefully there will many entries, as all the cards sent in, will be sold to a reputable waste paper company, with the proceeds going to a children's cancer hospice, on the East London and Essex border.

Well time to put the word processor in the cupboard until next month. Bye for now. ◊

Application for a Citizens Band Radio Licence

Please refer to the section notes about and complete the following fields in ink on very GOOD CONTACT

1 Details of Applicant
Name (Mr, Mrs, Miss, etc.)
Home Address
Mailing Address
Post Code
Telephone (include 270)

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1. First Year
2. Subsequent Year
3. Standing Order

3 Declaration
I hereby declare that the information I have given is correct to the best of my knowledge
Signed: _____ Date: _____
I am under 18 years of age the signature of your parent or guardian is required
Signed: _____ Date: _____
Serial number: _____

4 Declaration of Information
I have read the conditions of the licence and I understand that I must not use the licence for any purpose other than that specified in the conditions of the licence. I have read the conditions of the licence and I understand that I must not use the licence for any purpose other than that specified in the conditions of the licence.

You can contact Len Over and enter his competition by writing to:

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Interference

Who's interfering with who! I'm John Armstrong Technical Advisor for AKD. We have been manufacturing filters to eliminate interference from TV's etc. for over 10 years and I will be writing some articles on interference problems over the coming months.

Modern electronics have given us a lot of help in the home from the home computer to stereo TV's, all singing and dancing Hi Fi's multi-media computers to name but a few. Nowadays all of these contain complicated electronics to perform their wondrous tricks, unfortunately they also do some things that they weren't designed to, for example, they receive R.F. (radio frequency) signals out of the range the are designed for. Just try listening to a portable radio next to a computer. It is also true to say that (even with the new E.M.C. regulations) they radiate R.F. signals, which may cause interference to C.B.'s.

**Who's to blame?
As far as you're concerned
it's their TV, to them your
C.B. must be at fault.
Especially since they don't
get a problem if you don't
transmit!**

What is it?

What is interference? Well, there are many types, I will try to cover as many as I can with this and future articles. Interference as it implies is when one object causes another not to function correctly. The reason may not always be as obvious as it seems.

Take the above case, you're on your C.B. and next door's TV is being affected. Who's to blame? As far as you're concerned it's their TV, to them your C.B. must be at fault. Especially since they don't get a problem if you don't transmit! Modern TV's are very good at what they were designed to do however with all the additions, Satellite, Nicam stereo and V.C.R.'s and all the

interconnecting wires your 4 watts of R.F. can easily be picked up and cause havoc. No two installations (even if all the equipment is the same) will necessarily get the same problem.

Many people now have 2 or 3 TV's all running from the same aerial often through an amplifier/splitter - these are very susceptible to R.F. from C.B.'s. Finally, your C.B. radio may have a fault, a poorly S.W.R.'d aerial or even a badly located aerial may be the cause.

TV interference (T.V.I.)

I will discuss TV interference (or T.V.I.) first. "You're interfering with my tele" is one of the possible starts to a long and sometimes aggravating problem with neighbours. The reason you're on your C.B. and next door is trying to watch TV is that you want to enjoy your hobby and they want to enjoy theirs (TV).

What do you do in this seemingly impossible situation? If the neighbour is being reasonable, you can try a few simple tests. Try to connect the main aerial directly to the TV, does this cure the problem? Reconnect other items until the interference comes back.

This will give an indication of where the interference is getting in.

If the TV system has any sort of aerial amplifier, then a filter will be needed before this. If they are being unreasonable you can advise them to ask the R.A. (Radio communications Agency) to investigate the problem. To do this, they must first obtain an "Interference Complaints Form" from a Main Post Office, fill in the details (and enclose the relevant fee) and have the problem investigated. At this point it might be worth having your equipment checked to ensure it's all OK.

Other interference

Interference to other items, for example phones and Hi Fi's, can be harder to deal with. Testing to try and ascertain where the problem is getting in needs some detailed explanation, which I will leave to a later article, but even this type of interference can be dealt with by using Ferrite rings or clamp on choke systems

AKD operate a technical help line on 01438 351710 and can offer advice or assistance. ◊

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Backchat



Emergency channel nine

You asked in the April edition of your (great) new re-vamped magazine, if anyone had had an experience with channel nine. Well, here is my story.

It was a cold, wet and wintry afternoon with the wind howling outside. Nothing to do, I was sitting in my office watching the box. By my side was the good old Uniden 300 home base. I switched it on (there was nothing much on the TV) and started to dial through the channels. I had gone around the dial two or three times when, on channel 19 I heard "Emergency QSY to channel nine". I immediately went down to channel nine and heard "Breaker needing urgent assistance, please clarify your needs". The breaker came back on with "Oh! Thank God. I've got a fibreglass cast on my leg and the hospital has said that if it does break then I am not to move! It has and I'm stuck. The phone is a receive only and anyway I can't get to it. I can't move! The cast has split open. Please call the ambulance".

I knew the breaker but not his full address, on one of the rare occasions that an address should be given over the air, he gave it to me. I immediately called an ambulance. We then moved to another channel to leave nine free. I kept trying to calm him down, and succeeded. It took about 10 minutes for the ambulance to arrive. On its arrival he closed down the radio with, "They're here, thank you. Thank you for being there for me. Hell! They've broken down the door! Oh well, it was the only way. Thanks mate, I owe you!" And that was that. The end of it was that he was taken to hospital and was given a good old fashioned plaster of paris cast. He made a good recovery and is now again walking with no problem.

If he had moved, with the broken plaster, his leg would have "fallen apart", and he possibly would never have walked again - properly.

There is no real monitoring service in the area, and my interception of his message was purely by chance. I'm still waiting to see him in the pub but the real thanks is the reward of helping a fellow human being. It was not a life threatening situation - but it was a crisis. This is an example of how C.B. can be of benefit to anyone. The message from this story is keep channel nine clear!

A. James,
Dragon Radios,
Cardigan,
Dyfed.

C.B. appeal

As a counsellor, I have realised how useful C.B. could be to the vulnerable in our society. There are so many who are completely cut-off, for various reasons, and C.B. could be very useful in drawing them out of themselves.

I would like to appeal to all your readers to donate any old C.B.s, mics, aerials and books - indeed anything to do with C.B. radio.

I am also hoping to get helpers to reissue them to the elderly, the blind and vulnerable people in general. The hope is to "pair" people off, to give much needed communication and companionship to those who need it.

**Maureen Kennedy
Cowdenbeath**

If you have any equipment, working or not, please send it to "Identical Scotland (U.K.)", Maureen Kennedy, 14, Thistle Street, Cowdenbeath, Fife, KY4 8NF.

No sidebanders

Please, no more about sideband in the magazine. As you can probably tell I'm dead against it. In my experience it ruins the band. **Clodhopper,
Newark.**

The issues of S.S.B. and indeed A.M. produce very strong feelings on both sides. Recently, I got a letter claiming that I was biased against S.S.B. You probably think I'm biased towards it. We at C.B. Magazine are for C.B. in any shape or form. We've kept S.S.B. at a relatively low profile because it is illegal for use in the U.K. We never promote breaking the law. In the past, we have reported on A.M. and S.S.B. issues as they have appeared and the growing demands for a legal S.S.B. service.

As the Radiocommunication Agency is now considering other C.B. modes following last year's survey, we feel that it is responsible to take a closer look at the issues.

We haven't got a secret agenda - we just want to ensure that if and when the R.A. ask you if you want S.S.B. - you'll know what you're voting for!



C.B. stories

I enjoyed reading the shop stories that appeared in the March issue although I thought that some were hard to believe. I thought I would pass on a couple of my own.

I once bought a York homebase 869 from a friend but it had no instructions. When I tried it for the first time I found that I couldn't switch it on. I checked all the fuses but still no success. Later, I found out that you had to pull the knob out to switch it on. Yes, it was marked on and volume.

One day, I decided to go for a walk round the harbour in my area with my Harvard handset. I stopped half way round, pulled the aerial out and faced the sea. A friend passed by in her car and saw me standing there. She next saw my wife and said "I didn't know your husband went fishing!"

**Bill (Greybeard)
Isle of Wight**

Thanks for your stories. Have any others readers got C.B. tales to tell?

C
B

L

A

B

S

MIDLAND ALAN 78

The Midland C.B. radio brand name was created in Kansas City, U.S.A. and has been around for some 20 years. A complete range of Midland C.B. radios is available from the U.K. importer/distributor Kernow Trading that is based in Bristol. This Midland 78 works on the C.E.P.T. frequencies and is approved to E.T.S. 300 135/C.E.P.T. 27D.

First impressions

When opening the very nice multi-coloured printed box and taking out the Midland 78 C.B. radio, it suddenly brought back to me some very good memories about my previous involvement in C.B. radio. Back in the early 1970s, when I was living in Sweden, I had visited Midland Electronics both in Kansas City and Tokyo.

The Midland 78 is quite slim, being only 180 x 35 x 140mm in size. The first point I noticed was the unusual position of the microphone socket which is fitted to the front panel on the right hand side. The plug used is the standard metal six pin screw-in type, which is used in most C.B. radios which include extra functions accessed via the microphone.

The volume on/off and squelch controls are easy to use. I would say the Midland 78 can be placed in the "very good value for money" range of C.B. radios and it has some unusual features.

The rig features quick up and quick down keys which allows you to jump up or down ten channels. An LCR key allows you to select the last channel used and a scan key allows you to monitor/scan all 40 channels which is useful if the band is quiet.

The channel selection is via two keys on the microphone or the standard channel selector switch. A channel nine emergency switch is also available. The rear panel contains the standard SO239 antenna socket, also a 3.5mm socket for an external four to eight ohm speaker. A 2.5mm socket is supplied for connection to an external S meter. The 12volt D.C. supply is via a sturdy red and

Jim Finch puts the new Midland to the C.B. Labs test



black cable with an in line fuse holder.

On the bench

As always, we are testing the rig against the D.T.I. specifications and the manufacturers details.

Transmitter test results

The Midland 78 C.B. transmitter produced the full four watts R.F. power with no problems. The frequency accuracy was excellent - indeed it was the best of the sets so far tested. The deviation level was spot on and the unwanted amplitude modulation level was very good and well within specifications.

Transmitter-receiver on air

I connected the Midland 78 up to the usual Super Big Stick antenna and put it in scan mode and listened to the channels. I selected channel 37 which we are using for the C.B. Labs tests. I called a few times for a rig check and I had a reply from Bravo Whisky 43, the Old Timer, personal George who lives between Ryde and East Cowes on the Isle of Wight.

This is about 14 miles from my QTH and George gave me a radio five with about 80%

modulation and I received him well. The second QSO was with Bill (Doctor Bells) who lived 20 miles away again with a good modulation. Thanks to Bill and George for their help.



Receiver

The receiver includes a rather unusual RX band pass module which helps reject out of band signals and also reduces internal spurious signals from getting to the antenna socket.

The Midland 78 produced a strong clear audio signal via the internal loudspeaker, or an external eight ohm speaker. The squelch control, both in manual and scan, was adequate. The adjacent channel rejection was checked and the set met the requirements with no problems. The 40 channel receiver scan mode worked in a completely different way from the other sets I have tested. When in scan mode, the receiver will stop when there is a signal/carrier on channel of sufficient signal strength to stop the scan function. The receiver will stay on this channel until the signal is removed, when there is a short delay before it starts scanning again. There is an external S meter socket which could be useful for those who want to add a standard analogue meter, but since the output levels weren't very accurate readings should only be seen as approximate.

C.B. Labs QSLs

The special C.B. Labs QSL cards are only available to those who help with the on air rig tests. If you receive a call from Jim then send your QSL card with a S.A.E. for reply to C.B. Labs, C.B. Magazine, 1A Munster Road, North End, Portsmouth, Hants, PO2 9BS.

Midland 78

TEST REPORT:

Test standards = ETS 300 135 (was MPT 1333)
(26.965-27.405MHz)

Transmitter Tests

1. Transmitter RF output power maximum 4 watts

Ch1 10.8V (3.8W) 13.2V (4.0W)
Ch20 10.8V (3.8W) 13.2V (4.0W)
Ch40 10.8V (3.7W) 13.2V (4.0W)

2. Transmitter Frequency Deviation

ETS 300 135 maximum = +/- 2 kHz
Test maximum deviation = +/- 2 kHz

3. Transmitter Frequency Error ETS 300 135 = +/- 600 Hz

Channel 1 = Spot on (0 Hz)
Channel 20 = 20 Hz
Channel 40 = 20 Hz

4. Unwanted Amplitude Modulation

ETS 300 135 maximum = 5%
Test result << 1%

5. Conducted and Radiated Emissions

Good results. Well within ETS 300 135 requirements. Close in spurious results very good. Clean output signal.

Receiver Tests

Test procedure

The C.B. receiver antenna socket is connected to a Marconi 2022A signal generator with the external spkr socket connected to an AF dummy load of 8 Ohms or 8 Ohms speaker and a Motorola SA 3001 SINAD meter/helper SINADDER. The receiver audio level is adjusted to 50% of maximum audio output power.

1. RF signal level for 20dB SINAD

The test result of 0.706 uV (pd) (-110 dbm) for 20 db SINAD is reasonable but could be better.

2. Receiver current drain (amps A)

Test full audio = 444 mA
Test squelched = 260 mA
Test maximum audio output = 1.53 Watts
Good audio quality.

3. Squelch Control

Test threshold level = 0.889 uV (pd)
Test scan stop level = 1.4 uV (pd)
Test fully muted level = 2.53 uV (pd)

4. Intermediate Frequencies

1st IF = 10.695 MHz Filter type = 2 pole xtal filter (10L08A Kony)
2nd IF = 455 kHz Ceramic filter (LT455HT)

5. Adjacent Channel Selectivity

ETS 300 135 requirement = minimum 60 dB
Upper = 60 dB Lower = 60 dB

6. Receiver Spurious Radiated Signals

Very high standard with spurious levels from the Midland 78 well below requirements.

Jim Finch

Midland 78

PROS

- 1) Compact size making it ideal for mobile or base use.
- 2) Easy to use front fitting microphone with up/down keys for quick channel change.
- 3) Scan function may be stopped by pressing up/down keys on mic.
- 4) Very good handbook with nice clear circuit diagrams.

Cons

- 1) No P.A. function.
- 2) Restarting scan function must be done via scan key. This key is hard to see when mobile at night due to no back light on keys.

Size

180 x 35 x 140mm

Price

£79.95

Overall

The Midland 78 is well made, being of the "hand assembled" type rather than the auto insertion/surface mount type. The unit is well put together with the underside of the unit being very neat and well soldered.

The Tropical Bands



Elaine Richards describes those exotic radio stations that can only be heard in the dead of night

WHAT A NAME! Just the title, tropical bands, conjures up images of Caribbean sunsets, exotic fruits and calypso music! In fact, listening to what have become known as the tropical bands is not far removed from this image. So what are the tropical bands?

There are just four short wave broadcast bands that are involved and they are 120m (2.3 to 2.5MHz), 90m (3.2 to 3.4MHz), 75m (3.9 to 4.0MHz) and 60m (4.75 to 5.06MHz). You won't find these on all short wave radios, but if yours has got them, then do have a go at listening.

The main difference between the tropical bands and the rest of the short wave broadcast bands is a mixture of the type of station to be found and the propagation effects. Most the short wave bands are dominated by government assisted international broadcasters such as BBC World Service and the U.S.A. Voice of America, the tropical bands are very different indeed. These frequencies are used by most third world countries as their main source of news and entertainment.

Let's pick a country - the West African country of Mauritania as an example. It has a population of around two million people spread over nearly 400,000 square miles. If you compare that with France, which is half the size and has a population of about 58 million!

In Mauritania, there's only one national newspaper and it's circulation means that only one person in 2000 reads it! This is made worse because only around 34% of the adult population are literate. But, if you look at how many radio receivers are in the country, there's around one for every seven people. There is a TV service, but at the last count there were only about 1000 receivers in the country! So you can see that radio broadcasting is the main method of keeping people of Mauritania up to date with news, entertainment and education.

The tropical bands are used by these countries for their internal broadcasts simply because these



frequencies provide a reliable day-time range of about 200-300 miles. So a well placed transmitter can cover a lot of the country and this keeps down the operating costs. The name tropical bands simply comes from the fact that the majority of the countries that use these bands for the internal broadcasts are located in or close to the tropics.

You're probably beginning to wonder why these limited coverage stations should prove of interest to listeners in other parts of the world. The secret lies in a trick of the ionosphere that provides enhanced propagation after dark. The 200-300 miles day-time range of these frequencies extends to many thousands of miles when darkness falls. This is all down to a propagation effect caused by what's known as the D and F layers.

Don't worry, I'm not going to get all technical, but I will just give a simple description. The D layer is a layer of ionised gasses that sit around 40 miles above the earth's surface. The layer forms as the sun

rises, peaks at mid-day and fades away at night. The important point about the D layer is that it absorbs all radio signals in the Tropical band range. This means that the signal can only be received by what's known as the ground wave, hence the 200-300 mile range.

Once the sun sets, the situation changes dramatically and the D layer gradually disappears allowing tropical band signals to pass through to the highly reflective F layer, that is much higher in the atmosphere. It's by bouncing between earth and the F layer that the tropical band signals are able to travel thousands of miles a trick otherwise known as 'skip' distance.

Of course, for this to happen the whole path between the listener and transmitter to be in darkness. If any part is in daylight, the D layer will normally absorb the signal. Another important point about the F layer is that it gradually descends during the night from over 200 miles down to just over 150 miles. This means that different stations will be audible at different times of night as the propagation varies.



Once you understand these basic principles of propagation, it's easy to see how many of the low power tropical stations can be received here in Europe. Not surprisingly, there are many people

who gain great pleasure from searching around the tropical bands for rare stations. The other good point about tropical band listening is that the best time to listen in is the evening, which is when most people have leisure time and can listen. To give you a few pointers to what can be heard, I've gathered together a few recently logged tropical stations in Table 1.

Once you've found an interesting station, you can then send them a reception report (QSL) and start collecting the fascinating and colourful QSL cards that they supply in exchange for reception reports. When sending in your reports please remember to send International Reply Coupons (available from the Post Office), this covers the return postage back to you. You should include details of the programme you heard along with a report on the strength and quality of the signal and anything else you may think they'll find useful. As these stations are often run on a shoe-string, replies can take a very long time.

If you are going to have a go at listening to tropical short wave signals, then some kind of frequency guide will be useful. That way you know roughly where and when to listen out for different stations. There are several books available, packed with frequencies, addresses of the stations and all kinds of other details about them. The two most popular are probably Passport to World Band Radio and World Radio TV Handbook. Of the two, I think "Passport" is best suited to the new listener whilst the W.R.T.H. is great for the experienced DXer. Happy DXing. ◇

**"What a name!
Just the title,
tropical bands,
conjures-up
images of
Caribbean
sunsets, exotic
fruits and
calypso music!"**

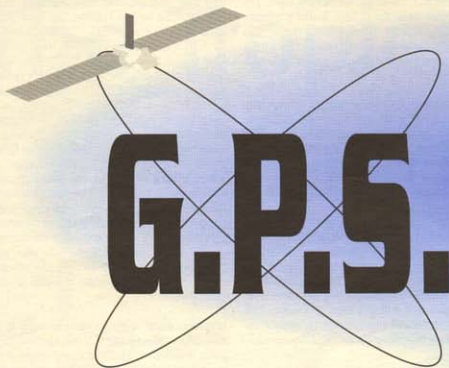
Table 1. Tropical Band Stations Heard in UK

Frequency	Station	Location	Power
4770	Centinela del Sur	Loja, Ecuador	5kW
4770	F.R.C.N.	Nigeria	50kW
4805	Radio Dif Do Amazonas	Manaus, Brazil	5kW
4845	ORTM	Nouakchott, Mauritania	100kW
4885	Radio Clube do Para	Belem, Brazil	5kW
4905	Radiodif Nationale	N'Djamena, Chad	100kW
4915	Ghana Broadcasting Corp.	Accra, Ghana	50kW
4920	All India Radio	Madras, India	50kW
4950	Radio Nacional	Luanda, Angola	5kW
5005	Radio Nacional	Bata, Equatorial Guinea	100kW





Garmin GPS 38



JOHN Masfield, the former Poet Laureate, once wrote in one of his most famous poems, "All I ask is a tall ship and a star to steer her by". Since the very earliest days, sailors have used the Sun and stars to determine their position when out of sight of land. Over the years this has proved its worth for a good navigator could fix his position within half a mile anywhere in the world using only a sextant and a chronometer.. So accurate could it be that only in the past year has the last chart surveyed by the legendary Captain Cook been finally superseded. But navigating by visual sightings has one grave disadvantage - if you can't see the sky for cloud, you cannot get a fix.

To overcome this, many different aids have been developed over the years, many with accuracies which could be measured in yards. None except Omega could provide a fix anywhere and even this aid could give substantial errors in many regions of the world.

The final breakthrough came when the then U.S.S.R. launched the first artificial satellite, Sputnik. The transmissions from this first space vehicle were monitored all over the world and by comparing the Doppler shift measured at many stations, it was found possible to determine its orbital parameters.

This triggered the space race and it was quickly realised that, in the reverse direction, the position of a station on earth could be determined by observing the signals from several satellites. This resulted in the U.S. Navy's "Transit" navigation system and ultimately the U.S. Department of Defence "Navstar". satellites which comprise the Global Positioning System (G.P.S.).

Global positioning system

The G.P.S. system comprises 24 satellites in carefully regulated orbits around the earth at a height of about 25,000 miles. These radiate signals which enable a receiver to determine its position to an accuracy of about 100 metres anywhere on the surface of the earth. In the words of a BBC TV programme "How do they do that?"

To give a full and accurate description of how the system works would fill every issue of C.B. magazine for the next year and, even then, only readers with a degree level knowledge of mathematics would really understand it all. However, the basic principle is quite simple. Each satellite's signals state its position and the time. The signals are received and the time of arrival noted. By comparing the difference between the time of transmission and the time of reception and by knowing the speed at which radio signals travel, the distance between satellite and receiver can be calculated. Marking a chart with all the places that distance from the satellite will give a curved "position line" on the chart. Repeating the process with another satellite will produce another position line which crosses the first in two places. Observation of a third satellite will give a third position line which will intersect one of the junctions of the first two lines, thus providing an accurate position fix.

This seems quite simple - but there is one complication, the clocks have to be extremely accurate, for every nanosecond (1/1,000,000,000th second) of timing error will cause a position error of one foot. The clocks on the satellites use either a caesium or rubidium standard, that are accurate to about one second in 20,000 years. But to fit a similar



A more advanced satellite receiver with more facilities suitable for boats or professional use. This uses an active external aerial.

G.P.S. is one of the abbreviations that may mean little to you. By the end of this five page special feature you'll know all about Global Positioning Satellites and what they can do for you and may even have discovered an exciting new hobby that can be enjoyed alongside C.B.

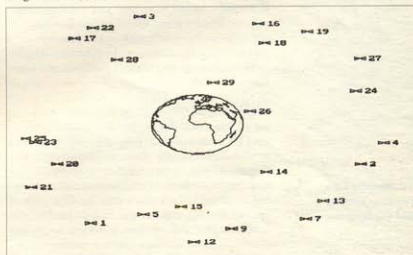
First, Brian Kendal introduces the military navigation system that is now open to all then Richard Diamond reviews a typical G.P.S. unit.

standard in every receiver would make them prohibitively expensive. However, mathematics came to the rescue, for by mathematical manipulation, if the signals from four or more satellites can be received, the time standard within the receiver can be eliminated from the calculations and the full accuracy of the satellite clocks can be utilised. The G.P.S. system therefore ensures that not less than four satellites will be visible to the receiver at any one time.

G.P.S. is, however, a military system, and in providing a navigation system for its own armed forces, it will also be providing a system of equal accuracy for any potential enemy. This is overcome by two methods. The first is that two sets of G.P.S. signals are radiated, one on 1575.42MHz and the other on 1227.6MHz. One frequency carries what is known as the Coarse/Acquisition code (C/A) which is for all users. The second, known as the "precision" is specifically intended for the U.S. Military and certain approved users such as for high accuracy surveying. This has somewhat different characteristics to C/A and, in a similar manner to pay-TV, is encrypted. Position fixes obtained using the precision code are about ten times more accurate than those from C/A code. The second technique is known as "selective availability", a method by which the accuracy of the C/A code can be improved or degraded to any desired degree. This was evident during the Gulf War, when it was decided that the Iraqis had little, if any, G.P.S. equipment and it would be convenient for the C/A accuracy to be improved. The accuracy was then brought up to about six or seven metres, but after the war was degraded to what is the present standard of 100 metres,

which means that the vast majority of fixes are accurate to about 50 metres.

From what I have said so far, it may be thought that, although extremely accurate, it is quite laborious to get a fix. But it is not, for all the mathematics are performed in the receiver, compared with a database and the result is presented as a position. Even in the least expensive receivers, this can be latitude and longitude, National Grid Reference or distance



A typical distribution of Newstar satellites seen from a point in space. There are 28 satellites of which 24 form the operational constellation with four available for service should any operational satellite fail.

to or from any predetermined point or points and a compass bearing. More complex receivers can display a digitised map of the area with your position located by some form of symbol with your track history marked. Some equipment can also be coupled to the ship or aircraft equipment and actually steer a predetermined course.

At this point, remembering that one generation's magic is the next generation's technology, G.P.S. must seem like magic, but



A typical handheld G.P.S. receiver. This one can give your position in lat/long, grid co-ordinates or bearing and distance from a waypoint, magnetic or true bearings, height above mean sea level in feet or metres, it will store 199 waypoints. It will also log your journey at specified time intervals. In addition to this it can be interfaced with a P.C., D.G.P.S., chart plotter or other navigation equipment

1000 feet! This is minimised by transmitting corrections for the transit time in the satellite signal. The most important error, however, is that the earth is not round. It is somewhat pear shaped with slightly flattened poles and a few other irregularities here and there. The satellites are in a circular orbit, but those orbits are centred on the Geocentre, or centre of gravity, of the earth.

Allowance for these irregularities is built into the higher grades of G.P.S. receiver equipment, but on the relatively inexpensive domestic equipment, a standard allowance is made for the area in which it may be used. Another difference between the top grade and inexpensive equipment is the computing power built in. Obviously, if a more powerful processing chip is installed, both more facilities can be provided and more refined mathematics can be used for the calculations. It is really the old story that you get what you pay for. For its price, however, the modern inexpensive hand held G.P.S. receiver is a superb piece of navigational equipment which is as accurate as any normal person could wish for.

Differential G.P.S.

As all but a few G.P.S. users rely entirely on the C/A code which is subject to the selective availability accuracy controlled down by U.S. Department of Defence, there are many commercial operators who have the need for a higher degree of accuracy than the C/A code provides. This requirement is answered by the Differential G.P.S. system. In simple terms this

there are some problems. The first of which is that despite what most technical books say, the speed of radio signals is not constant through the air. The variation is not much, but a transit time error of 1/1,000,000th of a second will give a position error of nearly

position. The errors are then transmitted in coded form. This is received by the user, applied to the G.P.S. receiver which then indicates the corrected position. This can result in position fixing of extremely high accuracy. So much so, that I have heard that the new cross channel catamaran ferries are now using D.G.P.S. for all their navigation including docking - and working to an accuracy of one metre!

Global navigation satellite system (G.N.S.S.)

So far I have been talking about G.P.S. as it is today, but techniques are advancing rapidly and the future of satellite navigation systems looks like being even more interesting than the past.

One of the greatest matters for concern among navigators is that, due to selective availability, the accuracy of their navigation equipment is entirely at the whim of the United States Department of Defence. This is obviously a very undesirable situation and it is being overcome in a number of ways.

The first consideration is that, when the U.S. Department of Defence was developing G.P.S., as the "cold war" was still in being, the then U.S.S.R. was not inactive. They developed a system called GLONASS with much the same characteristics as G.P.S. but which does not include the selective availability facility. The complete constellation of GLONASS satellites is now in orbit and can provide an average positional accuracy of about 25 metres. Receivers for GLONASS are not readily available, but they will be in the foreseeable future.

The second aspect is that the next generation of Inmarsat satellites will carry a navigational package. Inmarsat is an organisation owned jointly by over eighty countries which provides the satellite communications system which ships now use in preference to H.F. communication. Due to the international nature of the organisation it is inconceivable that the navigational accuracy could be degraded at the whim of one nation.

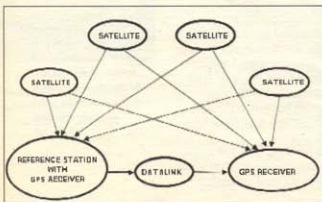
Overall, the G.N.S.S. system will make use of G.P.S., GLONASS and Inmarsat, and, together with Differential G.P.S., will provide a highly accurate navigation system available for navigators throughout the world.

G.P.S. and the breaker

So far in this article I have been writing about G.P.S. and really how it affect the highly professional band of navigators who depend on their skills for their living - and at times, their lives. But how can G.P.S. help the ordinary man in the street?

Of course, so far we have all managed to get along quite well without one - but I am sure that if once a breaker really started using a G.P.S., within months he would be wondering

Principle of Differential G.P.S.
An accuracy of one metre can be obtained with this system



is a service provided by a number of commercial stations who are located in very accurately surveyed positions and therefore can compare their position as indicated by G.P.S. with their known



however he managed before. Climbers, walkers and orienteers are already getting great benefits, for where their interests take them, there are few signposts and even the best readers of maps can become

totally disoriented when they become engulfed in fog. Even in my own experience, I have experienced the terror of being on a fellside, a visibility of three yards with snow underfoot and the light so shadowless that you cannot see your own footprints. Luckily, I knew that terrain particularly well and, with the help of my companion, managed to complete my journey without mishap.

A fell walker in winter could easily find himself injured in a similar position and, left to his own devices, could perish. However, if that same fell walker had a hand held transceiver and a G.P.S. receiver, then he could call for help and guide the rescuers to within shouting distance.

G.P.S. could also be of great assistance on those long overnight journeys on strange roads. Today, since so many towns are bypassed and trunk roads re-routed, at night it is almost impossible to determine exactly where you are. If you key a number of waypoints, say towns or road intersections and your destination into the receiver, you will have a continuous record of your position, distance to run to your waypoints and destination and, incidentally, the most accurate time check available. In short, a complete navigational system.

Even the most basic G.P.S. receivers can calculate speed to a high degree of accuracy - so it would make an interesting court case should you have a dispute with the law!

When operating mobile, some breakers make for a well known high location, but many others enjoy wandering around the byroads, just to see where it will take them. At such times, you are rarely sure where exactly you are. With a G.P.S. you can give your position accurately for every contact.

Finally, when you are going to eyeball a fellow breaker who you have never met, in a town you have never visited before, just ask for a grid reference for where you are going to meet, and the G.P.S. will guide you straight there.

So far, the world has only barely started to use G.P.S. In the years to come, I confidently predict that it will touch on everyone's lives to the degree that we will not be able to manage without it. So now is the time to start - Join the world of G.P.S! ◇

G.P.S. Navigation with the Garmin GPS38 Navigator

By Richard Diamond

With the hobby user in mind, Garmin have come up with the GPS38 their new miniature navigator which being specifically intended for handheld use does not offer the facility of an external antenna. It is however designed for single handed operation utilising only thumb based key strokes to operate the seven function keys located above the display. Through these keys a wealth of facilities may be accessed. Weighing only nine ounces (255g) with the optional four AA sized batteries, measuring only 6.15H x 2W x 1.23W inches, 15.6 x 5.1 x 3.1 cms, it is smaller than the latest cell phones and certainly slips in to most pockets without difficulty.

As with any G.P.S., the unit likes to know where it is on switch on, it doesn't need to know as it can work it out for itself but this takes thousands of calculations and can take as long as 20 minutes (worst case). To overcome this delay, Garmin have built in a start up menu that asks which country you are currently in, simply scrolling through the options and pushing the enter button reduces this delay to a maximum of two minutes. If the unit is switched somewhere close to its last known position (i.e. where it was turned off) the delay is negligible.

During the switch on delay, a number of displays may be selected to show how many satellites are being received and at what strength. Additionally, other satellites that should be received are displayed with the information of their approximate positions, this is helpful if you wish to avoid local obstructions and so increase the number of fixes available. The more satellites available at a given time will improve the accuracy of the position obtained. The GPS38 is capable of monitoring up to eight satellites simultaneously. Only three satellites are required to provide a 2-D fix and four for a 3-D fix. 3-D providing altitude information in

addition to the latitude and longitude given in the 2-D mode.

The accuracy of the system is controlled by the U.S. Government and may be varied from time to time. An accuracy of better than 100 metres can be expected and by using differential navigation where the error is calculated, by knowing the exact location of a local point and comparing this to the position provided by the navigator, an offset can then be utilised to provide better fixes for other positions in the same locality.

Garmin have certainly packed a lot of features into the GPS38 including a sunset/sunrise time indication for the programmed destination and all the waypoints. A waypoint is simply a point on the way from A to B that may have some special significance, for example a turning point. As the operator progresses from A to B the GPS38 plots progress into its memory which updates at a predefined rate, which if set for every 30 seconds would provide a memorised route of six hours, this feature is known as 'Backtrack' and also provides an odometer facility by recording distance covered.

Having programmed the unit with the lat./long. of the destination, up to 250 waypoints may be added and short cuts bypassing some waypoints, in order to progress directly on route rather than taking anticipated side trips, can be facilitated at the push of a button. To provide the navigation information the GPS38 may be configured to display:

- 1 North up, i.e. the top of the display indicates North
- 2 Destination up, i.e. final destination at the top of the display
- 3 Direction of movement up, i.e. your movement relative to the destination.

Two further displays are available showing either a compass face depicting a rotating compass dial with a track-up indication of the direction you are heading and a large directional arrow shows your bearing to the destination. The alternative display portrays the view of a highway ahead with an indication that you are left of track, right of track or on course.

A major feature for the radio enthusiast is the unique ability of this model to give not only its position in Lat./Long terms, or even in the National grid format but to be able to show the Maidenhead locator reference.

V.H.F./U.H.F. amateurs have been using this system for the last decade to convey their location information to other amateurs simply by using a six figure group in a format such as IO90FW, and an accuracy of one Km. This system is world-wide and a number of software packages are

available providing such information as headings and distances to a given point. The problem of identifying your position from a map and translating it to the appropriate reference is now a matter for the history books. Such a feature may have limited use for the home user, but on the other hand the operator that likes to go portable or even mobile will always be able to tell you exactly where he is in terms that can be understood.

For the home user who does not have access to a computer, distance and heading to another station can be shown on the GPS38 display by entering the Maidenhead locator of the other station as the destination and simply pushing the GOTO key.

The GPS38 is supplied standard without batteries, it is recommended that for optimum performance high capacity Alkaline cells be used (these will provide for up to 20 hours of use). Nicads may be used however a significant reduction in usable period will be noticed. It is worth noting that the GPS38 is particularly suited to nicad operation as its processor operates from a 3.3V supply compared with most other models that require a 5V supply, the point being that four nicads will only provide a maximum of 4.8V which in other models may lead to unreliable use. An optional D.C. lead with built in voltage regulator is available at £33.

For mobile and marine operation a swivel mounting bracket is available, however if the unit is to be mounted under cover remember that performance will be impaired.

The GPS38 is supplied with a wrist strap, an easy to follow comprehensive owners manual and a quick convenient reference guide. The unit is available at in excess of 100 retail establishments throughout the U.K. with a recommended price of £215 + VAT. For the more adventurous owner a software package may be purchased providing for up/down loading waypoints etc., this option is priced at £90 + V.A.T.

Thanks go to James Turner of Garmin U.K. Ltd for providing the review sample. ◇



Garmin GPS 38



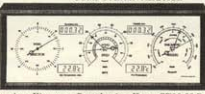
WEATHER

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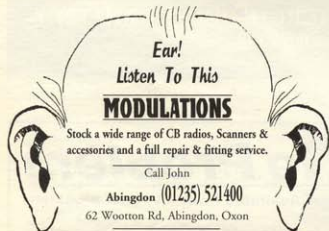
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That's



the Spirit

Hi Everyone,

How's your month been? I hope you're all keeping well and still reading this column. Summer is on it's way and it won't be long before we get the barbecues out again, I hope.

I tried to keep this as quiet as possible in the event I failed, but in December I took the R.A.E. (radio amateur exam) and since I last spoke to you all, I've had the results.....yes I passed, which is good news. I've just received my call sign, G7 WGI. I must admit, I was quite surprised at the number of C.B.ers that attended the classes. I have just been reading the readers survey and know how many of you feel about amateur radio, so I won't dwell on the subject, but don't worry guys I'm still an ardent follower of C.B. radio and will carry on using it, as I know a lot of amateurs do. On C.B. at least you can guarantee traffic reports if nothing else, and you don't have to give your handle every 15 minutes.

Moving on, isn't it amazing the things that C.B. gets used for? I read in Decembers' issue about a couple of lads from Nottingham playing chess of all things using C.B. radio, saving a fortune on phone bills and doing very well I might add.



The C.B. vicar
- helping others over the air

The C.B. vicar

I recently spoke to a local vicar who has erected a 5/8 wave Sirio 2008 antenna almost to the same height as the church steeple and is running a community care service. The Rev. of St. Peter and St. Paul church, Mark Hill-Tout (C.B. handle of Archangel) started his care service known as the W.C.C.C. (Wymering community

care call) just over a month ago.

Using Team Maxi 3000 hand helds (reviewed in the last issue) installed in various homes around the area, he keeps in regular contact with the elderly residents, who have handles such as Tulip and Sunflower, giving them a call at set times to check on their welfare. He tells me that he chose the C.E.P.T. system because of its relative quietness and cheap running costs.

The scheme has proved so successful that he now plans to install up to 10 sets before the end of April. Just as I'm writing this I see he's made the headlines in our local paper.

I think it's a marvellous idea and would like to wish him all the luck in his venture. It just goes to prove that the use of C.B. is only limited by your imagination.



London show

I've just got back from London after spending three days there at the Radio Amateur show, and was I amazed at the amount of C.B. equipment that was on sale at an amateur rally.

I saw second hand 934 MHz rigs at really cheap prices and stacks of 27 MHz gear. It just goes to show that amateur rallies are for everyone, not just hams. So, the next time there's one in your area get yourself along; you'll be surprised at what you can pick up for next to nothing.

Out with roger

I must tell you about something that tickled me. A friend of mine had his C.B. on in his car when he took his wife Vivian shopping. After listening for some time she turned and said to him " Aren't there a lot of people called Roger on this", bless her.

OK guys, that's about it for this month look after yourselves and stay lucky, see you all next month. ◇

HINTS, TIPS
AND
GOSSIP
FROM C.B.
MAGAZINE'S
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Tango Whisky Challenge

Any breaker who successfully copies the four members of the TransWorld International DX Group of Newbury, Berks that have designed the new club card will win free club membership. Mics at the ready, the four on your hit list should be TW 02 Ray (Dart), TW 06 Darren (Black Belt), TW26 Mike (Tom Cat) and TW57 Mark (Batman).

Double M Club

The Double M C.B. radio Club is an incredibly active club with members from Croydon to Hayward's Heath.

They not only meet every other Wednesday at the Ardingly Inn, Ardingly but also meet on air every Friday for a news broadcast and a quiz on channel 11.

Forthcoming events, picked from a packed programme include slide shows, and a range of evening events including quiz, fire, home made fashion, party, darts and strange stories! Contact the club for more details.



Help - Wanted and Given

The Torbay & South West International DX Club has now grown to 310 members which are working to raise money for their charities. These are the Dame Hannah Rogers School for handicapped children and teenagers and the Alzheimer's Disease Society which deals with dementia.

However, these helpers would also appreciate your help - they would like to know of a company that makes rubber stamps at a reasonable cost. If you can help then drop Harvey Wallbanger a line at T.S.W., PO Box 66, Torquay, Devon, TQ1 1EP.



As we enter the Eyeball season here is a full list of coming events

MAY

Golf Romeos are hosting the Cheltenham Eyeball at the Swan Inn, Coombe Hill on the 3rd, 4th and 5th of May. Camping available on site.

May 5th - National Vintage Communications Fair at the NEC in Birmingham.

The Cree Valley Breakers Club present their 13th Auchenlarie Mass Eyeball from the 3rd May to the 6th. The eyeball will feature on the Friday Nat & George, Miss Eyeball 96, Glamorous Granny, and Nobbly knees. On Saturday:- darts and dominoes, jnr miss Eyeball and Cabaret. On Sunday there will be a club quiz and a Country & Western dance.

May 18th - Alpha Whisky DX Group Annual Charity Eyeball at Letham Farm House Hotel, Perth from 1pm - 5.15pm. All proceeds to go to the Crossroads charity for carers.

May 18th-19th is the date for the first eyeball hosted by the Rolling Hills C.B. Club at the Red Lion, East Kirby featuring live entertainment on the Saturday night. Contact the club for more details.

P.R.C. 70th Anniversary Carnival & Electronics Fair will be on Sat 25th and Sun 26th of May at Tamarside Community College, Trevithick Road, Kings Tamerton, Plymouth. This Carnival will feature a C.B. station handing out QSL cards over the air, amateur radio, shortwave radio, fairground attractions, car boot sales and an evening disco. For more details of this combined C.B. and amateur

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event is the Plymouth Radio Club, The Royal Fleet Club, Morice Square, Plymouth.

May 27th - Mosquito Squadron's Eyeboot and Car Ball Sale on Tywyn Sea Front. For more details contact Group Captain Chester Barker-Williams on 01654 710204 for a full briefing.

June

June 1st - Somerset Knights Annual Mini Eyeball and Pig Roast from 11.30am till late at the Podimore Inn, Podimore, Nr Yeovil, Somerset

June 8th - Pudsey and District Breakers Radio Club is holding a Charity Gala and eyeball at the Civil Service Club and Sports ground, Newton Road, Leeds. Daytime activities include games, tombola and welly-wangling and there's a disco, buffet and karaoke in the evening.

The Friendly Knights have announced that their first eyeball will be held on the 8th - 9th of June. The venue will be the beautiful grounds of Walsall Arboretum with its very pleasant walks, boating, fishing, golf, horse riding, children's play area complete with paddling pool, miniature railway and so on. There will be overnight camping from noon Friday (7th June) to Monday at a reasonable charge. All proceedings will go their County Air Ambulance Service. More news nearer the time.

The Kilo Bravo Sheffield Eyeball will be held on 14-16th June and will include entertainment, games and refreshments.

Bracknell Breakers Club will be holding their 3rd annual eyeball at Foxhill Stables from 28th to 30th June - in aid of the Diabetic Association. Overnight parking is available and there will be a Car Boot Sale. Further details by telephoning 01344 423644 or 01734 784825.

July

A new eyeball from a new club is the 1st Kent Weald eyeball on Sunday 14th July at Headcorn airfield, Headcorn, Kent from 10am till 4pm. The eyeball aims to raise money to fund a Christmas party for 100 O.A.P.s.

Alpha Foxtrot's 11th Eyeball will be held at

the usual venue of Chasewater just off the A5 at Brownhills from Friday 19th - Sunday 21st July.

Bristol Breakers Club 2nd Eyeball on Saturday 27th July at the Bungalow Inn, Lulsgate, Nr Bristol Airport. For details contact Walt on 0117 9782550

August

O.R.C. Radio Rally at the Codnor Welfare Sports Ground, Derbyshire on August 10-11th. It is hoped to repeat the success of 1995.

Walliamania 96 (Sponsored by Sharmans Wholesale) at the Royal Bath & West Showground, Shepton Mallet on August 17th. There will be no charge for stalls but everyone must pay overnight parking. You can camp from the 15th to the 19th at £3.50 per night. The entertainment will include:- Friday - Top West Country Band The Carrot Crunchers plus disco and karaoke with the Somerset Wallies Roadshow. Saturday - By popular demand the Wurzels will be returning! Plus disco and karaoke. Tickets for both nights entertainment will cost £6 and there are only 350 on offer so book now! Entrance to the eyeball itself is 50p.

August 26th - Mosquito Squadron's Eyeboot and Car Ball Sale on Tywyn Sea Front. For more details contact Group Captain Chester Barker-Williams on 01654 710204 for a full briefing.

October

Tango Foxtrot DX Group host an all day eyeball on October 19th from 9am at the Riverside Leisure Centre, Cowick St., Exeter, Devon. There will also be an evening buffet, disco and caberet.

Torbay and South West DX Group's "Big October" weekend over 25th - 27th October. Information packs will be available from April 96 by sending a large SSAE to S.S.W. Int DX Club, PO Box 66, Torquay, Devon, TQ1 1EP.

December

The Kent Weald breakfast eyeball on Sunday 15th December from 7.30am at the Scout Hall, Jackson's Lane, Tenterden, Kent. ♡



Organising an Eyeboot or Event? Then let us know so and we'll pass it on to thousands of breakers. Write with details to: Eyeballs & Events, C.B. Magazine, 1A Munster Road, North End, Portsmouth, Hants, PO2 9BS.

Amateur dates

39th Northern Mobile Rally at Ripon Racecourse on Sunday June 2nd from 11am.

Royal Naval Amateur Radio Society Rally combined with RN Field Gun Day at HMS Collingswood, Fareham, Hampshire on Saturday 15th June from 1:30pm.

Sussex Amateur Radio & Computer fair July 14th at Brighton Racecourse. 10:30pm till 4pm

12th Bristol Radio Rally on September 1st at Brunel's Great Train Shed.

The 38th Harlow Radio Rally at the Harlow Sports Centre, from 10.30am on Sun 27th September.

Thames Valley Electronics Rally at Kempston Racecourse, 3rd November, from 10.30am till 4.30pm.

C.B. LUB CONTACTS

Here's a complete list of clubs and groups so that you can reach them. Please remember when writing to clubs to include a stamped self addressed envelope for a reply

1 Bravo Radio Group
P.O. Box 68, Banbridge, Co. Down, N. Ireland, BT 32 3EE

2nd City Breakers
P.O. Box 1, Glasgow, G69 6EF.

75 Delta Radio Group
P.O. Box 77, Lisburn, Co-Antrim, BT 28 2RD, N. Ireland.

81 Antrim & Down Radio Group
P.O. Box 16, Lisburn, N. Ireland.

Alpha-Mike C.B. Club & DX Group
P.O. Box 91, Bolton, Lancs, BL4 7FA

Barking Mad DX Group
P.O. Box 11, Leyland, Lancs, PR5 2TW

Bellhill DX Group
76 Rockburn Cres., Bellshill, ML14 3EZ.

Blackpool U.K. C.B. Club
P.O. Box 801, Kirkham, Preston

Bloodshot Eyeballs DX Group
P.O. Box 249, Woking, GU21 1WL

B.O.L.
P.O. Box 1280, Birmingham, B45 8SQ.

Borders C.B. Group
P.O. Box 15, Berwick on Tweed, TD15 2AP.

Bracknell Breakers Club
P.O. Box 30, Bracknell, Berkshire, RG12 4JZ.

Bradford City DX Group
P.O. Box 535, Bradford, West Yorkshire, BD9 6UY.

Bravo Bravo Group
P.O. Box 9, Southport, Lancs.

Bravo Sierra Int DX Group
P.O. Box 13, Thetford, Norfolk, IP4 3HY.

Breckland DX Group
P.O. Box 13, Thetford, Norfolk, IP24 3HY.

Bristol Breakers C.B. Club
P.O. Box 973, Bristol, BS99 1YB.

Bristol International Radio Club
P.O. Box 28, Bristol, BS99 1GL.

Bude and District C.B. Club
P.O. Box 15, Bude Cornwall. EX23 8YT.

Bureside Breakers
P.O. Box 173, Wroxham, Norfolk, NR12 8EX.

Bushackers DX Group
P.O. Box 7046, London, E4 8UH.

Cambrian Friends Support Group
P.O. Box 670, Tywyn, Gwynedd, LL36 9TG.

Caravan Breakaways
P.O. Box 401, Luton, Beds, LU3 3UJ.

C.B.4 the Blind (Brighton)
P.O. Box 2, Brighton, Sussex, BN1 8ES.

Central 27 C.B. Club
P.O. Box 23, Stirling, FK8 2BP.

Central DXers
P.O. Box 52, Wednesbury, West Midlands

Charlie Alpha C.B. Club
P.O. Box 1, Craven Arms, Shropshire, SY7 9ZZ.

Charlie Alpha DX Club
P.O. Box 40, Whitehaven, Cumbria, CA28 6YQ.

Charlie Bravo Creswell Breakers
P.O. Box 48, Worksop, Notts, S80 4AN.

Chapel C.B. Radio Club
P.O. Box 4, Stockport, SK12 6LN.

Charlie Hotel Int DX Club
P.O. Box 26, Bognor Regis W. Sussex, PO22 0JQ.

Charlie Alpha C.B. Club
P.O. Box 1, Craven Arms, Shropshire, SY7 9ZZ.

Cinque Port Breakers
P.O. Box 54, Hastings, East Sussex, TN 34 1RS.

Cobra International
P.O. Box 148, Shrewsbury, Shropshire, SY1 1ZB.

Delta Tango International
P.O. Box 174, Preston, Lancs, PR1 0BS.

Delta Lima DX Group
P.O. Box 557, Linton, LU1 5TT.

Delta Romeo Int DX QSL Group
c/o 23 Second Ave., Woodlands, Doncaster, Yorkshire, DN6 7QQ

Delta X-Ray Int Group
P.O. Box 73, Weston-Super-Mare, BS23 4SY.

Derbyshire Eagles DX Group
P.O. Box 10, Heanor, Derbyshire, DE75 7ZZ.

Double M.C.B. Radio Club
Garden Cottage, Wakehurst Place, Ardingly, Haywards Heath, West Sussex, RH17 6TN.

Eastern Star International QSL & Exchange Club
P.O. Box 184, Drayton, Norwich, Norfolk, NR8 6RJ.

Echo Bravo C.B. Club of Bideford
P.O. Box 14, Bideford, Devon, EX39 4YX.

Echo Yankee DX QSL Group
P.O. Box 30, Ipswich, Suffolk, IP2 9JR.

Elite Breaker's Club
P.O. Box 45, Stamford, Lincs, PE9 2NL.

European Communications DX Group
P.O. Box 305, Shrewsbury, Shropshire, SY1 4WD.

Fenland Tigers DX Group
P.O. Box 2, Holbeach, Lincs, PE12 8ER.

Foxtrost Charlie (Friendship) C.B. Club
P.O. Box 7, Swansea, South Wales, SA1 1PR.

Foxtrost Delta Int DX Group
P.O. Box 11, Fleetwood, Lancs, FY7 6UY.

Foxtrost Papa C.B. Radio Club
P.O. Box 517, Bedford, MK41 0XL.

Friendly Knights C.B. DX Club
P.O. Box 22, Wednesbury, West Midlands, WS10 8YU.

Glovesm Breakers
P.O. Box 11, Gloucestershire, GL14 0YF.

Gwent Radio Communications DX Group
P.O. Box 2, Abergavenny, Gwent, NP7 5YJ.

Global DX Club 588
P.O. Box 3, Toland Bay, Isle of Wight, PO39 0LH.

Gloucestershire Breakers
P.O. Box 156, Cheltenham, Glos, GL51 0YD.

GnR International DX Group
P.O. Box 10, Coleford, Glos, GL16 7RN.

Golf Kilo (U.K.) DX Group
1, Clifton Court, Southampton, SO15 4HA.

Hackpen White Horse C.B. Club
P.O. Box 927, Swindon, Wiltshire, SN1 1ZA.

Haverhill & District Radio Club
4, Gantwick Close, Haverhill, Suffolk, CB9 9JX.

Horseshoe Breakers
P.O. Box 3, Letchworth, Herts., SG6 4YU.

Hotel Tango Breakers
P.O. Box 6, Helston, Cornwall.

India Tango DX QSL Group International
P.O. Box 30, Ipswich, Suffolk, IP2 9JR.

Inkford Brook Breakers
P.O. Box 1022, Hall Green, Birmingham, B28 0YB.

International Radio Club
P.O. Box 1153, Ayrshire, KA12 8AE.

ITA DX QSL Club
7 Toll Bar Ave, Bottesford, Notts, NG13 0BB.

Kenninghall Breakers
P.O. Box 273, Sheffield, S6 2NT.

Kent Weald C.B. Radio Breakers Club
P.O. Box 252, Ashford, Kent, TN24 9ZU.

Kingfisher DX Group
P.O. Box 553, Calne, Wiltshire, SN11 9RF.

Lima Bravo Int DX Group
Insignia Signs, Letterkenny,

If your Club is not listed here get your club secretary to write to:-



Co. Donegal, Ireland

M

Medway Communications Team
P.O. Box 58, Gillingham,
Kent, ME7 1YN

Monaghan Radio Club
P.O. Box 3, Monaghan, Rep of
Ireland

Mosquito Squadron
P.O. Box 1, Tywyn, Gwynedd,
LL36 9HD

N

Nene Valley Breakers
P.O. Box 37, Peterborough,
PE1 3JP

November Bravo Int. DX
P.O. Box 1, Newton-le-
Willows, Merseyside, WA12
9YW

November Whisky's C.B. Radio Group
P.O. Box 801, Preston, PR4
2BG

Northern Breakers
P.O. Box 260, Belfast, BT4
3AW

Norwich Dragons
P.O. Box 155, Norwich, NR5
8UL

North Walsham Radio C.B. and DX Club
P.O. Box 174, Bacton,
Norwich, Norfolk, NR12 0HU

O

Organised Radio Club
P.O. Box 3, Heanor,
Derbyshire DE75 7UH

Organised Society
P.O. Box 33, Ripley,
Derbyshire, DE5 3BP

Oscar Whisky Lima DX Group
P.O. Box 294, Telford, TF2
7WA

Otterbourne Breakers
P.O. Box 48, Eastleigh, Hants,
SO5 5XD

Our Heritage DX Group
P.O. Box 19, Gosport, Hants,
PO12

P

Papa Sierra C.B. Club
P.O. Box 31, Wednesbury,
West Midlands, WS10 8XN

Parkway Breakers Club
P.O. Box 78, Plymouth, PL2
2YV

Phoenix C.B. DX Club
P.O. Box 38, Andover,
Hants, SP10 1AA

Pudsey and District Breakers
P.O. Box 24, Pudsey, Leeds,
LS28 7HP

R

Radio Friends C.B., DX, QSL Group
P.O. Box 1492, Bournemouth,
BH7 6YB

Radio Warrington DX Group
P.O. Box 50, Warrington,
WA1 4BY

Railway Tavern DX Group
P.O. Box 137, Docking,
Norfolk, PE31 8LG

Red Dwarf Interstellar DX Group
P.O. Box 802, Broom, Cambs,
CB3 7TW

Red Planet DX Club
P.O. Box 25, Skelton,
Cleveland, TS13 4YW

Rolling Hills Club
P.O. Box 17, Spilsby, Lincs,
PE23 5JE

Romeo Foxtrotters
P.O. Box 149, Godalming,
Surrey, GU7 1WW

Radio Operators International DX Group
Westward Rise Holiday Park,
Bream, Somerset, TA8 2RD

Romeo Sierra Int DX Group
P.O. Box 23, Stirling,
FK82BP

S

Sierra Charlie C.B. Radio Group
P.O. Box 1336, London, N22
6YW

Scottish Highlanders DX QSL Club
P.O. Box 39, Stirling, FK8
1YD

Sherwood Forest C.B. Club
P.O. Box 27, Mansfield,
Nottinghamshire, NG18 5NW

Sierra Alpha C.B. Club
Contact at Blyth meetings.

Sierra Echo DX QSL Group
P.O. Box 2511, Clacton-
on-Sea, Essex, CO16 0AY

Simply the Best
P.O. Box 453, Telford, TF7
4RS

Somerset Knights International DX & QSL Group
P.O. Box 26, Yeovil,
Somerset, BA20 1XT

Somerset Wallies Int DX Group
P.O. Box 15, Radstock, Bath,
Avon, BA3 3Q

South Coast Radio DX Group
P.O. Box 555, Lymington,
Hants, SO41 9TY

South Downs Way Radio Group
P.O. Box 45, Waterlooville,
Hants, PO7 6RA

South West Radio Group (Sugar Whiskies)
P.O. Box 12, St Austell,
Cornwall, PL25 4UX

Spinaaker Breakers Club
P.O. Box 181, New Milton,
Hants

T

Tango Bravo Breakers
P.O. Box 15, Berwick on
Tweed, TD15 2AP

Tango Charles DX Club
P.O. Box 84, Westbury-on-
Trym, Bristol, BS10 5NR

Tango Delta DX Group
P.O. Box 15, Leeds, LS25
7XQ

Tancho Echo DX Group
P.O. Box 62, Southend-on-Sea,
Essex, SS1 1TE

Tango Foxtrot DX Radio Group
P.O. Box 117, Exeter, Devon

Tango Mike
P.O. Box 20, March, Cambs,
PE15 8TE

Tango Papa C.B. Club of Southport
P.O. Box 13, Southport, Lincs,
PR9 0AA

Tango Sierra Radio Club
P.O. Box 337, Saffron Walden,
Essex, C.B.11 4HR

Tango Tango DX & QSL
7 Toll Bar Ave, Botesford,
Notts, NG13 0BB

Tango Whisky (Transworld)
P.O. Box, 5504, Newbury,
Berks, RG16 8YJ

Tigers International Radio Club
Wicken Sports Club, St Johns
Lane, Wicken, Northants

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P.O. Box 66, Torquay, Devon,
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Breaking new ground

It's good to know many of our regular readers are finding recent changes pleasing - though long overdue. While Argus (ASP) and Nexus did their best to supply C.B.ers with good coverage and an acceptable quality, nothing really changed. Notably the difference between then and now is that the newer and brighter magazine is directly linked to people connected to the radio industry and therefore the magazine is not going to be classed as "just another title"! I think that the Editor and others deserve our support and I hope readers will keep supplying information (and take out a subscription)!

Confederation confidence

In the coming months you will be reading a lot of news about the proposals being compiled by the Ad Hoc Working Party of B.C.B.C. (British C.B. Confederation). The final set of proposals will eventually be circulated to as many individual C.B.ers, clubs and organisations as possible. In the meantime ...

Chris Perry (Big Chris) has sent out a letter / questionnaire package that should now have been received by ALL U.K. C.B. clubs and groups, if your club hasn't received it then drop him a line c/o P.O. Box 7868, London, SW18 3XR (and include a large S.S.A.E.). When your club does receive it then return it completed as soon as possible so that he and other committee members can process the information and answers.

Your input is vital. Nobody is being forgotten and individual C.B.ers can write in with ideas, comments and suggestions for consideration. These can be sent via me, the

Editor or through any other Committee member.

It's worth remembering that the Committee was set up to see how C.B.ers could be represented and not C.B. issues such as extra channels, 80 channel rigs and so on. Those are for the organisation and its members to determine once it has been set up.

When the committee completes its work, and its members are working very hard, the final proposal will be put to C.B.ers, all C.B.ers. How things then change and proceed after this will depend on U.K. C.B.ers and others associated with the hobby. So please show an interest at every opportunity and when the final draft is presented please make sure you vote, Yes or No, don't leave it to someone else!

Licence changes

Quite surprisingly a number of readers have written to me expressing support for licence changes from the paper licence to a type similar to a plastic credit card, equally is their support for the licence card to be used in conjunction with the C.B. radio (inserted into a slot in the front of the C.B.). At this time I've had no reply from the R.A. on these ideas or that of A.T.I.S., yet all three must be an advantage toward establishing better future use of legal C.B.

Realistically the only people who can instigate change or move obstacles to achieve a brighter outlook, are the R.A. in the first place and C.B.ers in the second.

Sad news

Sadly, I have to report that Ken (Sunray) from Hertfordshire died at the beginning of March. He was much liked by locals and promoted good use of both C.B. and amateur bands. My thanks to George (Roller Ball) from Hatfield for this information.

Severn bridge

Last month, I mentioned the forthcoming public opening of the new Severn River Crossing (between Avon and Wales). I am now reliably informed that once opened they plan to close the old bridge for "essential" maintenance and repairs. So if you plan to use the bridge during the summer months please allow extra time for the inevitable traffic delays. ◇

If you have something to contribute then write to me at:-

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How I Began in C.B. Radio

HOW DID YOU GET STARTED IN C.B. RADIO?

C.B. Magazine's
Brian Kendal and
Christine Brooks
describe their
experiences

Brian Kendal

Picture if you will, a typical British summer day back in 1944. Although the war news was good (we had just got our own back on William the Conqueror by invading Normandy), the weather was not. Clouds, tinted by the heavy industrial pollution of South Yorkshire, covered the sky from horizon to horizon and it was raining stair rods.

In his bedroom in a small semi-detached house on the outskirts of the town, a 13 year old boy watched as the rivulets of rain ran down the window and he wondered what to do. He was aroused from his stupor by a shout from downstairs.

"For goodness sake stop what you are doing and do something - go to the library if you don't know what to do" shouted his mother, who was trying to enjoy a post lunch snooze and was understandably both confused and worried when she couldn't hear what her offspring was doing.

At last there was an idea. The boy bounded down stairs, out of the back door and disdaining any protective clothing, for we all know that 13 y-os are waterproof, jumped on his bicycle and pedalled furiously down to the town library.

He parked his bike and walked through the main door into the lending section, defining his track with a river of water from his shoes, much to the disgust of the watching library assistants. He wandered idly around, picking a book here and there, glancing at it and

returning it to the shelves until he came to Dewey Classification 683. Here he came across a book called "Newnes Short Wave Manual, 1938 edition". At first it seemed too technical, but a few chapters in he came across a circuit for a one valve radio! Now at that time, one valve radios seemed rather magical, for everyone knew that you really needed four or five. This intrigued the lad, so he booked it



out and after a brief retrospection, tucked it inside his soaking shirt for protection.

Back home, he avidly read the chapter again and then climbed into the loft where he knew was a box of radio components which was all that remained of his grandfather's wireless experiments of the 1920s. These he examined and then gradually pieced together the circuit, finally connecting the headphones. He put these on and played with the knobs. Nothing happened. He then noticed the letters HT+, LT+ and earth at various places in the circuit. Reading the chapter in the book yet again, he realised that he needed some batteries. He charged round the house, recklessly emptying every torch and finding still more batteries in the dustbin. Checking that his mother was otherwise occupied, these he placed in the oven to revive them a little. Two hours later, all the batteries were strung in series and he again tried the receiver. He heard weak voices in the headphones and then, tuning across the band, he heard a station identifying itself as being located in South America. At that moment he was hooked!

From then onwards it was a downward trail, for in the succeeding weeks, months and years little mattered except to improve the station receiver. Two valve, three valve sets were constructed and finally, a superhet! Due to the wartime situation, there were few broadcast stations in Europe - but he could often hear army and airforce transmissions. He learned the morse code, but most of what he picked up were series of numbers or in code, which meant little. Sometimes he heard fighter or bomber aircraft speaking to their bases. A few years later, at the end of the Nurnberg

Brian in his bedside shack in 1947 when he was 16. The main receiver, a 5 valve superhet is to the bottom right of the bench. On the left is an ex-government R26 converter modified for 10 metres.



Trials, he picked up the B.B.C. relay and gained a reputation locally by giving the sentences awarded to the Nazi leaders several hours before they were announced on the B.B.C. News.

As the obsession grew worse, so it was noticed by other people. Even the headmaster's remarks on one school report said "Kendal should be actively discouraged from his hobby of radio which can never be of any possible use to him!"

Two years later, the war had ended and normality was beginning to return. In particular Radio Amateurs were beginning to populate the air waves again. The boy was intrigued, but, although he regularly listened to them, yet another development caught his fancy - television. Although he was over a hundred miles outside the service area of the Alexandra Palace station, he built a set using a three inch radar tube from ex-government surplus. This produced a picture several times a week. The next year, encouraged by a friend, he took the Radio Amateurs Examination and, to his surprise, was successful, for there were no courses to take and all his knowledge came from the books which he had read.

Just at that point came the final step downwards - he discovered girls, and in particular a petite blue eyed blonde with a penchant for plunging necklines and a figure like - well that is another story.

Even this, though, could not totally diminish his interest in things technical, particularly as "come up and see my television" made a wonderful new version of "come and see my etchings". This was a great success for the picture was so dim that the light had to be switched off and it was so small that you had to sit very closely together.

An amateur transmitting licence eventually came in late 1949 and through the remainder of that and the following year the countries worked list gradually filled up. However, at the end of 1950 the representatives of H.M. King George VI indicated forcefully that his services were required by the Royal Air Force, and at that point boyhood ended and the rest of his life began.

After serving in the R.A.F. as a Radar Mechanic, Brian briefly worked in Radio/TV servicing before entering Civil Aviation. There he served at many airports and radio stations around the United Kingdom. Since 1983 he

has been writing for the aviation, amateur and professional radio and C.B. press and has had over 300 articles published. Incidentally, Brian did marry a blue eyed blonde, but not the one mentioned in this story. They are still together and have a son, a daughter and two grandchildren.



Christine Brooks

In 1979, I opened an electrical shop in Clevedon, Avon, selling toasters, irons etc. As my name is Christine Brooks, we decided to trade under the name of "C.B. Trading Co.". I was amazed at the amount of confused looking men asking what I had "under the counter" or "out the back"!

I later learned that these were people interested in C.B. radio. Leading up to legalisation in 1981 we had so many enquiries that I thought it was too good an opportunity to miss. In 1981 we stocked a whole range of radios and accessories. I also went on to pass my Amateur Radio Licence (mainly so I could sort out who the idiots were).

A few years later we started doing wholesale van sales and then opened another shop in Avonmouth, Bristol, with a repair workshop.

So, had it not be for my name, I don't think we would have had 15 years of interesting trading! ◇

How did you start in C.B. radio?

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WHAT lies ahead for Packet radio? Well apart from further experiments with satellite connections and speeding up the network,

the biggest change I think is going to be in the software - the user front end. While the T.N.C.s perform all the AX25 linking and protocol, the way that we using the software has not really changed a great deal. A bit like the motor car, it still has four wheels and a petrol engine. Ok, it's more streamlined and has more electrical gadgets, but essentially it's still the good old Henry Ford, eh?

So, as with the motor car, what we have to do is make it more presentable, up to date and easier for the operator to use. One of the ways this is being achieved is by adopting the front end software that is used by the Internet, namely a package called Netscape.

By using a special operating system, (which is as far as I am aware is only available for the IBM type P.C. and Apple Macintosh) called Linux and adapting the Netscape software, it is now possible to have a type of Internet connection using packet radio. The speed and graphic capabilities have a way to go yet but it has certainly made an impact in places like the U.S.A. and Australia where trials are being made with radio hams. It's a shame we Brit's seem to lag behind as we are so much at the forefront of technology. Still I suppose it gives them time to iron out the bugs.

R.T.T.Y.

R.T.T.Y. was the next type of data transmission mode after morse code. Morse, or C.W. as it is otherwise known, is still used today by a lot of stations including the Ministry of Defence, Coastguard, emergency services and radio hams. While morse is now seen more as a backup system for the majority of services, it is still part of basic training for people in the communications department. It's also still required for those wanting to have a full Amateur Radio Class A Licence. I have heard however that the U.S. Coastguard have officially stopped using it as their standard mode of communications.

R.T.T.Y., or Radio Teletype to give you it's full name, has been around for some 60 years or so. Sending two audio tones at 1275Hz and 1445Hz or mark and space as they are otherwise known as, it is made up of 5 bit data, some 32 characters which when shifted, using the shift key on your keyboard, will then give you the extra characters for numbers, punctuation etc. **Fig.1**

The most common speeds are 45.45 (now normally just called 45) 50, 75 and

100. The reason why these speeds were selected is that the original telex machines used a complex method of gears to obtain these speeds. The data was sent by using mechanical machines rather like semi-electric typewriters (more like steam driven though). Nowadays we have the use of computers which makes things a lot easier, but we still stick to using these speeds.

Most modern computerised systems automatically format the text to the screen or printer. The standard length for a teleprinter is 69 characters, this would be for the old mechanical machines. Most computers these days have a display of 80 characters and automatically send carriage returns and line feeds to end up at the beginning of the next line. If you are receiving a weak or noisy signal you will get corrupted data on your display as there is no error correction due to the fact it is only a half duplex transmission. This means that you can only transmit in one given direction at any given time, much like using the microphone on your C.B. rig. This does not normally pose a

Lloyd Arrow with more on digital communications

problem as you can make out most of the message, unless it is a particularly bad signal.

My first encounter with one was a Creed 444 which was carefully looked after by a radio ham who had a collection of machines in various states of repair. One was connected through some strange piece of hardware to a Commodore 64. The teleprinter itself had a tray underneath it which collected the oil dripping from the sump and gears. This was all connected to a V.H.F. radio through which we sent R.T.T.Y. Data has always interested me, because I have a voice that is too quiet for radio, this seemed to be a good alternative.

I built myself a R.T.T.Y. unit which was connected up to my BBC B computer. This was the best option as there was only a little space in my radio room. There are various kits and modems that can be found to decode R.T.T.Y. By using a small interface this is connected to the serial or comms port

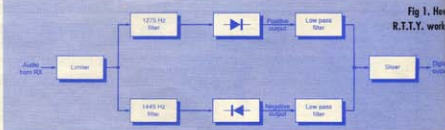


Fig 1. How R.T.T.Y. works

of the computer. Normally this will convert a analogue signal (audio from the radio) to a digital signal (this is what the computer understands). Software should then decode and display the text on the screen.

There are different means of receiving R.T.T.Y.

1. By using your computer with a small interface pictured in Fig 2. Possible computers include Atari ST, Amiga, Apple Macintosh, BBC B and IBM P.C.

2. By using separate decoders E.R.A. microreader, Telereader and Universal Decoders

3. By using multimode decoders (T.N.C.s) AEA PK232, AEA DSP232, Kantronics KAM, MFJ.

In the next issue, I will give you some frequencies to have a listen to and some more details on how you can start receiving. You will also need a shortwave radio of some description. More on that then.

MailBox

I have received some letters from readers that may be of interest, so I thought of trying out a section each month to allow you to add some information or comments.

The E.Y. DX Group have produced a handout sheet on the setup and use of packet radio on C.B., where to find it, software to use and B.B.S. operation to help you on your way. They can be contacted by writing to: E.Y. DX

Group, P.O. Box 165, Chatham, Kent, ME4 6EY.

A couple of guys on the Isle of Man wrote in saying that they have successfully tried out packet radio using AEA PK232s on C.B., making contacts into Europe as there wasn't any local activity (seems pretty good to me L.A.). They did say how efficiently it worked on 27 F.M. at 1200 baud, which is what radio amateurs are using above 30MHz. If you live anywhere in the area, drop them a line and see if you can make it to them. They can be contacted by writing to: P.O. Box 18, Castletown, Isle of Man, IM99 5TU. ◊

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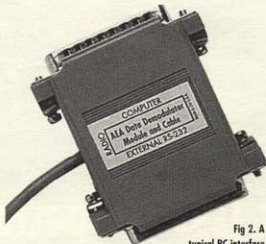


Fig 2. A
typical PC interface

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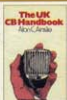
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QSL

David Dragonrider is your guide to QSLing and delves into the weird & wonderful world of the Somerset Wallies

For this month the "theme" is a look at an insane group who hold their Christmas Party during April. Also when the rest of country is letting off fireworks to mark the political aspirations of one Guy Fawkes they are holding their Easter Party!

They are, of course, the Somerset Wallies. The Group was formed in 1989 with only five members from the Radstock area to promote friendship on and off the radio. Membership now stands at over 1,200 all over the U.K. and in 20 other countries worldwide.

Wallie Mania '96 is the Somerset Wallies 7th Eyeball and will once again be held at the Royal Bath & West Showground, Shepton Mallet, Somerset on August 17th. Since they started running their own eyeball the group have raised funds for such charities as the Guide Dogs for the Blind, C.L.F.C., the Girl Guides and many others.

You will see the Wallies around the eyeball circuit in the summer months with their stall selling the groups' merchandise and moonshine "zider", with their mascot in tow, Jarvis the pig. Jarvis has the annoying habit of getting lost, or just visiting other groups from Cornwall to Scotland.

The Wallies do not have weekly or monthly meetings, rather they hold their eyeball once a year. In addition they also have a Christmas and New Year Party which was held in March and keep a look out for their Easter Party come Bonfire Night! This year marks the 3rd birthday for Jarvis the Pig, which will be held on Saturday July 6th at Clandown Football Club, Clandown, Radstock, Avon. The Group also has a selection of photo-quality



cards available to members. For prices drop the group a line with return postage, also if you wish to join, again, drop them a line with return postage. Contact address is P O Box 15, Radstock, Bath, Avon, BA3 3QF.

I cannot finish off without looking back to last years Wallie Mania and mentioning the excellent Souvenir Programme which was available on the day priced just £1.25. It is an excellent little mini-mag and very well printed. It covers everything you need to know for the day and night's events, there's even space for autograph collecting for the Wurzel's Saturday night stamp. And, yes, they are back this year!

By popular demand the Wurzel's make a return visit to Wallie Mania 1996, if you can make it, don't miss it! Tickets are just £6 for both Friday nights "The Carrot Crunchers" Band and Karaoke evening (7pm to midnight), and Saturday's The Wurzel's and Karaoke 7pm to 1am.

Well, we are now well into the 1996 Eyeball season now and this is as good a time as any to recommend that anyone new (and not so new) to the hobby does their best to get to one or more of these events up and down the country! There are plenty about, so finding one shouldn't be too hard. It's amazing how enjoyable these events can be, and if you are into "Series Collecting", you stand a good chance of getting hold of loads of cards at one time.

Some new collectors of the Currie Series of QSL Collector cards include Phil, the president of the Sierra Whisky Club in Stockton, Joe (Consett Pilot) of Consett, Florence (Geordie Girl) of Spennymore, June (Rag Doll) of Wales and Antonio (Papa Romeo) of Spain. Antonio's handle is Pantera Rosa (Pink Panther to you and me). Bet you didn't know I could read Spanish, did you? Well I can't, it's a guess going from the illustration on the card! I've also had a nice selection of cards from Geoff (Hound Dog) of the Moonshiners DX Group of Eastleigh. Geoff is also the P.R. chappie for the group and if

INTERNATIONAL D.X. GROUP



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you are interested in joining or for more details, he is the chap to contact. Just send a S.A.E. with your request to him.

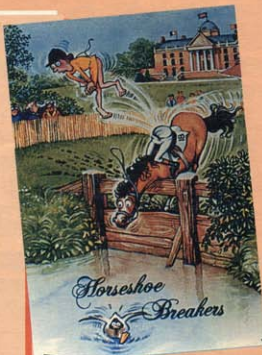
I've recently received the good news that Sean of the Dayglo Club of Northern Ireland is alive and kicking and back on the QSL circuit. He has been very quiet for a little time now but has a number of new cards and is well on his way to becoming the first Currie Baron of Northern Ireland.

During 1995 the Horseshoe Breakers of Herts managed to raise £1382 for their various charities and the group have asked me to pass on their thanks to all the kind hearted breakers who supported their 24 hour mods (both of them) and other fund raising events. A special thanks to June (Buggy Girl) who acted as an out station the whole time despite her severe disabilities.

On March 2nd and 3rd 1996 the group held another 24 hour modulation in aid of Childline and Barnados in the Dunstable Downs so if you pledged money, please do send it in and help make a difference. Maurice (Hound Dog) has also included a number of the Group's new colour QSL cards, these photo cards show up great in these colour pages, don't they?

Many thanks to everyone who sent in their Esso Tiger Tokens earlier this year, I've passed them onto my local school and everyone helps. The schools promotion is now over, so it's back to collecting stamps! Please keep on sending your used postage stamps up to me and I'll pass them on to my local Radio Station who are collecting them for the Guide Dogs for the Blind appeal.

Please send your stamps, your cards and letters and info to me at the usual address of 3 Tam Villas, Cowpasture Road, Ilkley, West Yorkshire, LS29 8RH and for anyone unsure of who I am, well, it's still David (Dragonrider One) at this end. If you're organising an Eyeball or C.B. related event, please drop me a line and we'll add it to the list elsewhere in the magazine. ♦



QSLer Addresses

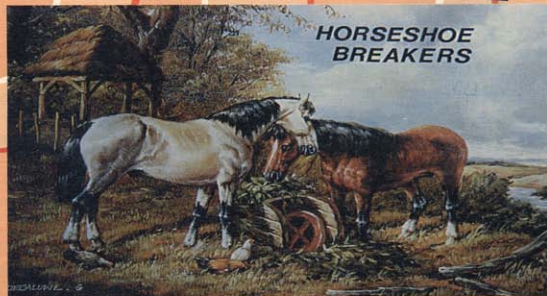
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- June (Rag Doll)**
IGW46, P O Box 286, Cardiff, S Wales, CF1 7XE
- Sean (Dayglo 001)**
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- Horseshoe Breakers**
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QSL Service Addresses


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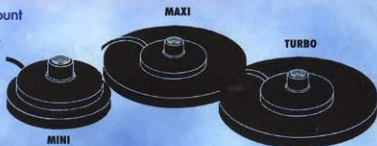
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