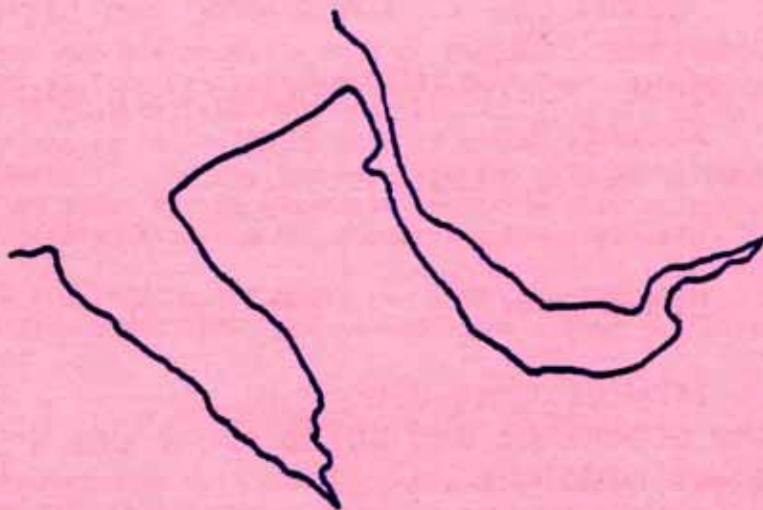


AUTUMN 86

# AIRWAVE

» 325 «



WIRRAL AND DISTRICT  
AMATEUR RADIO CLUB

## FORTHCOMING EVENTS

### **SEPTEMBER**

17th D & W Railway Inn Meols  
24th Emergency Resuscitation

### **OCTOBER**

1st D & W Primrose Liscard  
8th Japanese Morse Norman Kendrick G3CSG  
12th Sunday D.F. Hunt  
15th **Ladies Night** Glass Blowing with Bridale Glass.  
15th D & W The Mill Greasby  
22nd October QRP by Rev.George Dobbs.  
29th Social and Presentation Evening including  
judging of the home constructors competition.

### **NOVEMBER**

5th Bonfire Night with Irby Cricket Club  
Bring the kids and your own fireworks.  
12th Tropposcatter Film  
19th **Ladies Night** Microvave Cooking with MANWEB.  
19th D & W Anchor Inn Irby.  
26th Chairman's Night !!!!!

### **DECEMBER**

3rd D & W Brown Cow Bebington.  
10th T.B.A.  
17th D & W Irby Cricket Club  
24th Fill the Stockings and think about the FT1.  
31st See you at midnight on S13

### **JANUARY 1986.**

7th D & W Ring'O'Bells West Kirby  
14th Annual General Meeting  
21st D & W Seven Stars Thornton Hough.

## **CONGRATULATIONS**

to the WIRRAL AMATEUR RADIO SOCIETY on their fiftieth  
aniversary and may they have an equally prosperous  
future.

Have you seen the floral tribute to this momentous  
occasion in Hamilton Square in Birkenhead; directly  
opposite the Town Hall.

WIRRAL AND DISTRICT AMATEUR RADIO CLUB

THE COMMITTEE

FOR 1986

CHAIRMAN	JOHN FOGG	G8UZZ	051-632 3131
SECRETARY	GERRY SCOTT	G8TRY	051-630 1393
TREASURER	PAULINE ROBINSON		051-648 5892
N.A.R.S.A. REP.	PAUL ROBINSON	G6JZP	051-648 5892
PUBLICITY MANAGER	PETER MORTON	G6CGJ	051-677 7376
ACTIVITIES MANAGER	PHIL LANGFORD	G6SNO	051-677 1947
SOCIAL MANAGER	CHRIS BROWN	GCDVV	051-648 3241

CLUB MEETINGS

Meetings are normally held on the second and fourth Wednesday in each month, at Irby Cricket Club, Mill Hill Road, Irby. The Clubhouse of Irby C.C. is just off the main road between Irby and Greashby, about half-way along on the easterly side of the road.

PLEASE park on the top car-park and walk down, thus leaving the very limited space by the clubhouse available for the bar-staff, unloading by guest speakers etc. and not forgetting the disabled.

DO NOT PARK ON THE DRIVE --- IRBY C.C. REQUEST.  
They know from experiance that an ambulance cannot get past on the drive.

CLUB NET FREQUENCY IS 145.325 Mhz.

The net frequency on S.13 was decided upon in 1980, as being otherwise completely dead in this area. The Club assisted the purchase of crystals for rock-bound users (as most were). Please maintain activity on .325. Remember, use it or loose it. It is in grave danger of being 'pinched' for another net because of lack of activity. Get in there first, so as you can say "Yes, this frequency is in use, and has been for a while, by the W&DARC."

AIRWAVE 325

Airwave 325 is the periodic newsletter of this Club, and is published two or three times each year as events and articles dictate. Articles for inclusion and members ads. etc. are always welcome.

Produced on behalf of the Club by -  
The Secretary, Gerry Scott, G8TRY,  
19, Penkett Road,  
Wallasey,  
Merseyside.  
L45 7QF.

YES! YES! YES! This is IT. The long-awaited AIRWAVE. Hopefully its got a red cover. Why? Remember the old joke "What's black and white and (red) all over?" Answer- AIRWAVE.

Although it doesn't seem like it, it is actually quite a long time since I wrote the introduction to the last edition, bearing in mind that this is probably the last page to be typed. Also I could prattle on about almost anything, but as I've got to type it, then I shall not go on.

It can't have escaped anybody's notice that the past 12 months have been busy for the club. That is to say generally busy, as opposed to the vast amount of work that went on in the early part of 1985. In that time, I can say that I am generally pleased and proud of the things that have gone on in and around the club framework. At the same time, I have felt very dismayed at some of the things that people who share the same hobby have found to argue about within themselves, and has become aired in the editorials and letter pages of the amateur radio press, for all the world to see. It has become all too easy to get worked-up over relatively trivial matters. I count myself lucky as being one of those who was taught something about this hobby that is not on any RAE syllabus "Don't get bitter and twisted over something. There are already enough people of all ages who are bitter and twisted." It's true. Sometimes I have to remind myself of that. I wish more people would, too.

Before I go any further, I must give some thanks, some apologies and a small explanation to the reader. My thanks go as always to those who have contributed to this magazine, but special thanks must go to those who, having prepared an article, seen it become time expired and outdated, have then gone on to rework the original or produce another for me. Also, I'm sorry that I have had so little time to make as much contribution to this mag. as you may have previously expected. Unfortunately, there had been insufficient current material for a long time, while I still had the time to put it all together. By the time I had got enough material, I had very little time.

As ever, the mag. should reflect the membership and what it does and what it wants, so all contributions however small, are most welcome. Also, it is important to keep them coming. That way, smaller but 'fresher' editions can be produced more often.

As 'Update' is quite easy and quick to produce, and 'Airwave' has become such a burden, we will be aiming for larger 'Updates' and smaller 'Airwaves' in the future, but if this idea is to succeed it needs a good supply of material at the right time. So if I've just jogged your memory about something that you were going to write, or pricked your conscience, please feel free to put pen to paper now. The same goes for photographs particularly if there is a story or caption to go with it.

One final point, if you move home or job, get married, alter your phone number or similar, please let the secretary know in writing. It can save a lot of wasted effort, or even embarrassment.

Need I remind you of the importance of regular attendance at the Club? It is the best way to keep up to date with what's going on, as an unscheduled change does sometimes happen, or there is a vacancy on a visit. We do try to produce a well balanced list of events, seasonally adjusted, so that you don't DF in the dark and are not trying to see a projector screen that is bathed in sunlight. We have to try to meet the needs of those who want to go to the clubhouse every week, with those who like to enjoy the more active and mobile sides of the hobby while the rain is warm!

Don't forget, though, that as members of Irby Cricket Club we are more than welcome to go there at other times than our club nights. In fact, Irby have asked us to do so more often. Mingle with the cricketers as well, just like many of our members have found out.

Enjoy the rest of the mag. and remember, if you have any comments or contributions, or could perhaps come up with some new ideas for the club, then please let us know. Bring a friend and introduce a new member.

IN THIS ISSUE..

are most of the usual articles and features that you have come to expect in Airwave. We hope that you enjoy them, and that they encourage you to write something yourself, no matter how short.

Naturally, there are reports and write-ups on events that have happened recently together with some not so recent ones, although these are still relevant. An example of this is JOTA, as this annual event is imminent.

There is a page to which we draw your attention. This concerns the Data Protection Act, and it is important as it is a legal matter. If you have any queries about the act, have a word with the Chairman or Secretary. It is now more important that information on our records is correct. Please ask if you think that it may be wrong - even for phone No. or postcode.

THE HOME CONSTRUCTION COMPETITION.

Please present your radio home-brew for judging on October 29th. at 8.00 pm. latest. The method of judging and awarding of points will be the same as last year. Additionally, the presentation of the award will take place on the same night. WIF ??

THE SOCIAL AND PRESENTATION EVENING..

Takes place on Wednesday October 29th. from 8pm. at Irby Cricket Club. This year will be slightly different from previous years. It will be less formal than before, although the club orientated prizes will be presented as usual, there will not be any R&E C&G certificates presented this year. An unusual departure will be that it will also combine the judging for the Home Construction Competition. Therefore, we will be able to display some of the clubs talent to both our own members and those who have travelled from other local clubs. After the judging there will be the abridged formalities and presentations followed by a buffet and general get-together with re-fueling breaks!

MEMBERS HANDBOOK

It has been our intention for some time now to produce a booklet about the club that will be useful to both old and new members, as well as others, including amateur radio magazines' club columns. Suggested content includes History, General Info., Constitution, Rules for DF and Home Construction, including Maps for locations of the club and some of the locations used for D&Ws, as well as past Chairmen and competition winners. Your suggestions would be most welcome.

AIRWAVE

The next edition of Airwave should be about the end of February. Contributions no later than 4/2/87. It is likely to be smaller but more often from now on. Update will bring you the latest info in December, and give notice of the next AGM. Any nominations yet ???

There will probably be another Update in the New Year, after the AGM and giving details of the results of the voting, plus subs. news.

REMEMBER

We try to provide something for everybody, and some people are always looking for miskates ....



THE CHAIRMAN'S PAGE

"Hey John! write me a page for the club magazine please", said Gerry, "OK" I replied, "But just what do you want me to put in it", I queried, "Oh anything...like what we have done and what we are going to do", came the reply.

Well here we are with a few notes an events past, present and future. There was a time when our club led the way in VHF direction finding, rarely would a weekend pass without seeing someone tearing about the countryside waving some new fangled gadget around their head and muttering comments like, "Oh \*\*\*T! .... it must be the calibration". So great was the interest in D.F that Phil (G6SNO) introduced a new series of Sunday events. The first year this series was run competition was strong with Foxes inventing ever more devious means of concealment and the hunters, armed with a massive array of secret weapons, stooping to even lower forms of cunning in order to find them. This series of events proved a great success and was enjoyed by all. This year, however, things are somewhat different; the support for the last Sunday series was so small that we have had to reduce the number of events to ONE, and I can't help feeling that we are all missing out on a lot of fun, or at least some of you are. (The chairman won the event this year). Even the prestigious Eileen Medley competition could cope with even more entrants, so come on, dig out your aerials and have a go at a different and challenging facet of Amateur Radio.

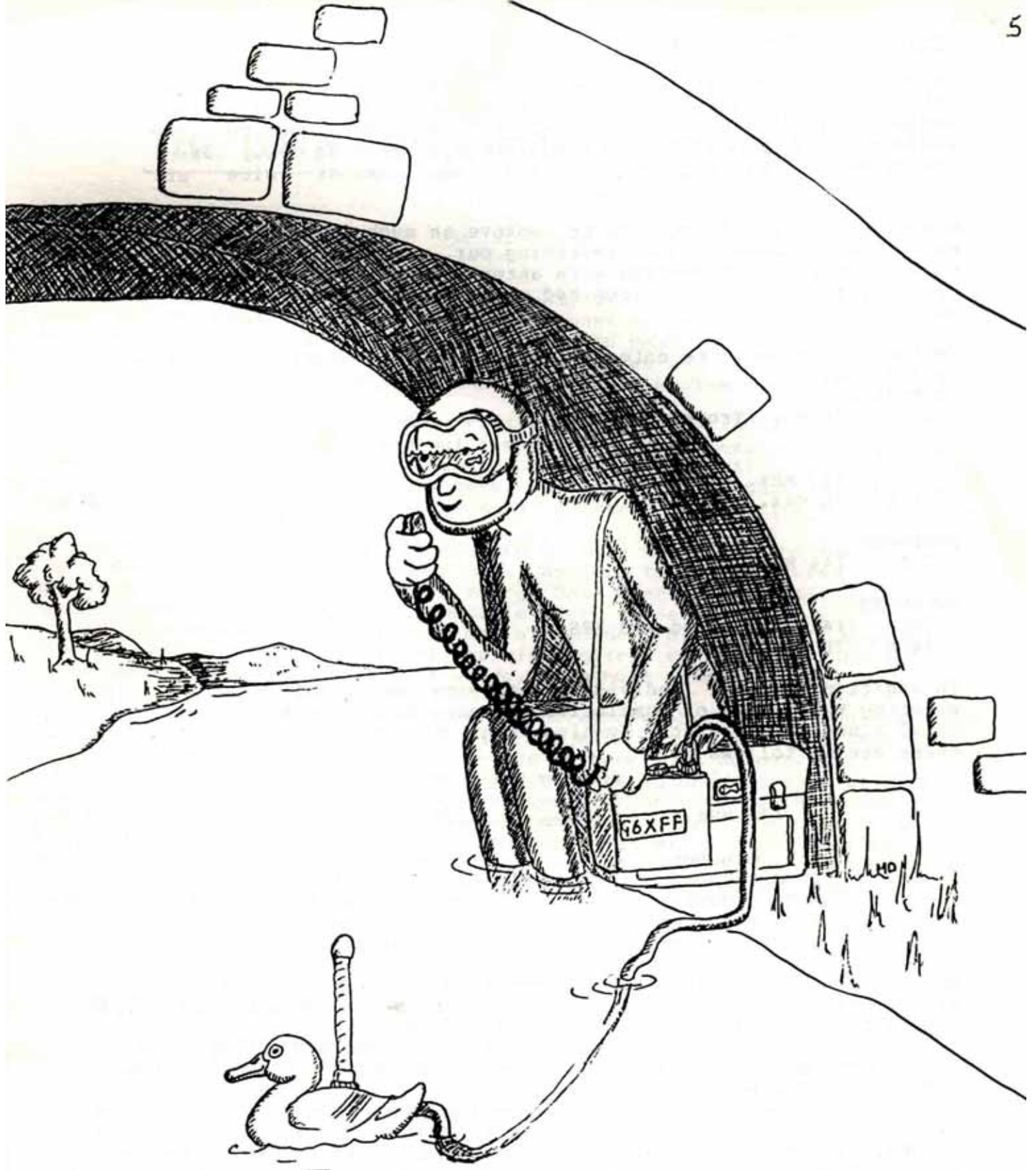
I am afraid to say that like the previous event our contests are suffering from a distinct lack of support. Make no mistake, contests can be hard work but the rewards can be great also. I have heard it said that we should not bother with contests because they cost too much money and clog up the radio spectrum, well neither is true and a word with the Treasurer of Contest Manager will open confirm this. The Wirral & District club is well known in contest circles and well respected. The people who take part are dedicated and hard working often loaning, purchasing and building equipment with contests in mind. We are now able to operate on all bands from 4M to 13cms. A quick look at the pile of certificates, most for winning, will show just how successful your club has been in these competitions. We should be proud of our contesters and our club, so support them and share in their glory.

This years program has, I hope, been varied and interesting with something of interest for all our members. During the Summer, when the nights were light, we tried to fit in as many outdoor activities as possible, although even this did not please everybody. Some of the events are well worth mentioning again, like the trip to Capenhurst which was first class and enjoyed by all or our guest speaker who talked about solar flares and the sun in general. These were just two items that enlarged our understanding of topical subjects. We learned about other uses of radio when Bob Williams came and talked radio in The Air Training Corps, and our knowledge of switch-mode power supplies was greatly increased by a visit from Cedric Cawthorn. On the lighter side of life we held a Treasure Hunt and a Bar-B-Q. The Treasure hunt went well even if my team didn't win but the Bar-B-Q was a different matter entirely, it rained! and rained! and \*%#!&\$#! rained! and we carried on drinking and drinking and ..... so on. Well, in spite of the bad weather we managed to enjoy ourselves and all got home safely. I have to admit that it was I who moved the date of the above event and yes I know that it was warm and dry on the original night.....Sorry!. At the end of August we were treated to a extremely cheap session of radio calibration by Gorden Rouse (MGR Services), who spent all night testing and adjusting radio equipment. I don't know how many clubs provide this service but it cant be many. Ten points to WDC.

For your future entertainment and instruction we have Norman (G3CSG) with his brilliantly funny talk on Japanese Morse Code, A demonstration of emergency resuscitation by Dr John Clark (G4DBE), the Chairman's Night (that's a secret) and of course our social & presentation night. To finish off the year we will be holding a Christmas social event with the Wirral Amateur Radio Society... NO IT WILL NOT BE A DISCO....

Well that concludes my page, so I will wish you all well and look forward to seeing you at the Cricket Club soon.

73 John Fogg G8UZZ (Chairman)



"THIS IS THE ...ER... FOX"

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CONTEST MANAGER'S REPORT

As many of you saw at the Club some time ago, we are doing rather well in contests. We now hold over 30 Certificates. Sadly though 1986 got off to a rather bad start due to the inclement weather but things improved later in the year when the elements allowed us to reach our contest site at Cynr-Y-Brain near Llangollen.

Our plans for the future are to improve as much as possible in every field. These include improving our receivers for lower noise figures, experimenting with antenna systems, and building a dish antenna for use on 23cms. and upwards, as well as many other modifications.

Contests we hope to be entering during the rest of the year are as follows:-

SEPTEMBER

21st 70 MHz. Trophy and SWL.

OCTOBER

4th 432 MHz. - 24 GHz.

26th 70 MHz. Fixed.

NOVEMBER

1st 144 MHz. CW.

DECEMBER

7th 144 MHz. Fixed and AFS.

14th 70 MHz. CW.

In addition to these individual contests we shall also be entering two series of Cumulative contests which are each made up of a series of several evening contests and the date of these are as follows :-

432 MHz.	1,296/2,320 MHz.
7th October	15th October
23rd October	31st October
8th November	16th November
24th November	2nd December
10th December	18th December

Even if you cannot make it to a contest even for a brief visit please remember to give us a call, every contact is worth points. Listen for the call signs GW4MGR/P and GW8WDC/P.

73 for now,  
PHIL. G6SNO Contest Manager.

**CONGRATULATIONS** to one and all for a splendid effort on NFD. This year we operated five stations from the Club site near the top of the Horseshoe Pass. Particular thanks are due to our ever active Contest Manager Phil G6SNO for getting the event off the ground and to Janis for organising Phil. Well done everybody, let's hope that the results are a worthy reflection of the effort put into the event.

Heard on NFD "I've got my nose stuck in the zip" . . . . What was the treasurer doing?



# THE DATA PROTECTION ACT 1984



DATA PROTECTION ACT 1984 ----- THE CLUB AND YOU  
=====

Members of the Club, both past and present, will almost certainly be aware that, for the past few years, a certain amount of 'data' on them has been held on computer. This has enabled the Club to rapidly print address labels, provide a current members list for admin purposes and generally assist the secretary and treasurer in a way that the manual system never could.

With the introduction of The Data Protection Act 1984 (DPA), a number of safeguards for individuals against computer users now exist. The Act is "To regulate the use of automatically processed information relating to individuals and the provision of services in respect of such information." The Act does not cover the processing of personal information by manual means.

We now have the situation where you are a 'Data Subject', the Club is a 'Data User' and we hold 'Personal Data' on you, to use the terms of the Act, and that the Registrar would like every 'Data User' to register with him, by Law, and for a fee of £22, renewable every three years. FORTUNATELY there are exceptions, and all is not 'Big Brother', because the Act does not seek to prevent individuals from carrying out the sort of voluntary work functions that we do, on a home computer.

The exemptions for data held by unincorporated members clubs and names and address data are conditional upon Data Subjects not objecting to the data about them being held. The Data User has to seek such objections. As such, it is recommended that this may be done by sending each of them a standard letter or by including a request for objections in a prominent position in the next newsletter or mail shot which is to be sent to them. If a Data Subject does object then, in order to retain the exemption, we must delete the related data from computer, although it can still be held on a manual system. New membership forms should then include a question relating to objections.

## NOTE

UNLESS THE SECRETARY OF THE CLUB IS INFORMED TO THE CONTRARY, IT WILL BE ASSUMED THAT YOU DO NOT OBJECT TO THE DATA ABOUT YOU BEING HELD BY THE CLUB.

We believe that you have nothing to fear by this notice, as there is no knowledge of any abuse in the past. Also it means that we cannot sell a list of members to say, a company, as could happen with shareholders perhaps.

IF YOU HAVE ANY OBJECTION DISCUSS THE MATTER WITH THE SECRETARY IMMEDIATELY.

A QUIET WEEKEND  
OR  
4 METRE CW CONTEST

"Do you fancy a quiet weekend away?" It started on Thursday Phils got 'flu; well he wasn't really needed was he!! Anyway we got out to the contest site at various times on the Saturday afternoon, after having the traditional Winter mud spray over the cars on the way up there. Well I arrived at the gate at the bottom of the track to be met by "Can you go and find some water I forgot to fill the water carrier". Finally I got up to the contest site just as dusk fell and the mast rose.

So far so good almost according to plan, the mast up, the generator running (it started first time) and the kettle on, just a few minor adjustments to the T.V. ariel and all was peaceful. Tea and biscuits followed and then the feint hearted went home to their beds. That left John G8UZZ and I sat in the gently swaying caravan deciding if we should eat in or out; a big decision.

We decided eat out, but first we had to wait for Paul G6JZP, where is he? Try 325-no reply try M.P.-no M.P. where is M.P.? We went down to the telephone and other people said M.P. is dead. John departed for a rendezvous with Richard G8NDD and the keys to M.P. I returned to the caravan to await Paul's arrival.

After a little while I was pleased to hear Paul's gentle tones tell me that he was at the top of the hill and would be with me in a few minutes. After a few minutes came the second call with those two little words "I'm stuck". We looked at the van and went off to M.P. (I still had not eaten).

M.P. was found in several pieces in the capable hands of John and Richard and by ten o'clock the results of the fire in M.P. had been removed and it was back on the air. Now food, too late for restaurants or pub food we found a chip shop in Mold.

Back at the contest site we prodded Pauls van, it resisted, we decided daylight would help.

Next day we awoke before the feather bed brigade arrived and breakfasted. The remainder of the team arrived and we started the contest only 15 minutes late and we visited Paul's van again. The contest went well with Denis G3UVR's delicate fingers finding some 46 contacts and 3 cordless telephones.

After the contest we visited Paul's van again and this time it responded to treatment (violence and obscenities). Finally the mast came down the equipment put away and we went home after a quiet weekend.

The result of the contest - - well we won; what else?

Peter G6CGJ.

J.O.T.A. stands for Jamboree On The Air which takes place on the third weekend of every October. This is an annual event in The International Scouting Calendar when Scouts, guides and leaders go on 'the air' to speak to each other via the medium of Amateur Radio. This year was the 28th. J.O.T.A. and preparations were already in hand since early summer for the event.

These preparations began with an application to the Department of Trade and Industry for a special call sign. In this instance GB2JAM - This has to be applied for by a radio amateur holding a Class 'A' licence and is only for use for a specific occasion and at a specific location. This call sign lasts for 15 months and will not be issued to any other person within that period. - I actually hold GB2JAM on behalf of West Wirral Scout District.

Having received confirmation of the call sign the next step was to approach the District Committee for the use of district headquarters at Royden Park, Frankby. This was duly granted and on Friday 18th. October this year Mike Downey and myself met at the H.Q. and discussed where to erect the various antennas for the radio transmitters. This was not as easy as it sounds as obviously the antennas have to be mounted as high as possible, the antenna for the H.F.(short-wave) transmitter was well over a hundred feet in length. Several high pine trees were considered and after some fruitless climbing by myself the long antenna wire was finally mounted at the top of a pine tree near to the entrance to district headquarters and the other end was mounted on an aluminium mast in the garden.

The V.H.F. antenna proved to be an even greater problem initially as it was a 16 element Yagi twenty feet long. This was finally resolved when I managed to gain access to the clock tower itself. The antenna and mounting poles were hoisted up the outside of the tower by two local amateurs from the Wirral and District Radio Club, using a long length of rope.

With the antennas erected we were then in business as it then only entailed connecting the equipment to them. The various pieces of equipment were loaned largely by members of the radio club and it also supplied the operators which included Phil the chairman, Eddie, Chris, Pete Morton and myself. A number of Venture Scouts were co-opted to assist in log-keeping and filling out the cards.

At 2238 hours G.M.T. GB2JAM went 'on the air' The first contact on V.H.F. being a few miles short of John -o-Groats, the short wave station contacted Poland, <sup>and</sup> a number of JOTA stations in Europe including Oslo, Sweden, Holland and one in particular; LA4JAM in Norway which was a Norwegian H.Q. station. The station was closed at 1A.m. to allow the operators a break.

The station was on the air again at 0800 and very interesting contacts were made into Pruge, Yugoslavia, Israel, Finland, Austria, Switzerland, Hamburg and one into Queensland, Australia where Brian Tucker actually spoke to the Australian Scout Station himself. - Other contacts were Italy, Poland, Holland

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Scout Groups in Zimbabwe, Zambia, Pretoria, Durban etc. in all 15 different South African Scout Groups were contacted including Z21JAM and Z23JAM which were national H.Q. stations. - In fact Dave Gardner thoroughly enjoyed himself talking to 'Jenny' who was representing the Ist. White River Scouts in the Transvaal till she mentioned that she was 40 years old and he seemed to then lose interest. Other contacts made at the time were with Argentina, Brazil and Zambia.

The radio was then switched to another Band and the next few hours were happily spent communicating with other scout groups within the U.K. till the station was again closed down for the night at 1.Am.

Operation was re-commenced at 0800 after breakfast and contacts were made with Naples, Latvia, Lebanon, Yugoslavia, USSR, Azores, Rumania and again a number of South African Groups. - An interesting exchange was made with 9H3IHQ The Island Headquarters Station in Malta ( hence the call sign)

Sterling work was done by Paul, Mark and Johnathan of Ist. Thurstaston Venture Unit in keeping the Log and writing out the cards which will be sent to the groups contacted. A number of District and County 'Officers' made official visits including Richard Twemelow, Brian Tucker, Malcolm Macleod and Dave Gardner. We were also visited by a group of 'P.L.s' and about 20 young army cadets who displayed great interest in the activity.

The station was finally closed down at 1430 hrs. and the next few hours were spent dismantling the equipment and cleaning up the headquarters. A great time was had by all and I wish to convey my thanks to The West Wirral District Council for allowing the use of district headquarters and to the Wirral and District Amateur Radio Club for their assistance with the operators and loan of equipment.

.....*P. V. Allen*.....

Victor Allen - A.V.S.L. Ist. Thurstaston.

This years Jamborree of the air takes place as ever on the third weekend in October which is the 17/18/19th October and we hope as many as possible of you will take the opportunity to either come and see us or give us a call. This year we will also have the assistance of the Wirral Amateur Radio Society so lets hope we have a real good do.



PART OF THE GB2 JAM STATION

### IS IT WORTH IT?

---

My husband has just departed to participate in yet another contest. I think he is mad! They are all mad! I am even worse for putting up with it. From 6:15am when I stagger out of bed to make sandwiches, coffee etc its a whirlwind round of "Wheres my thermals dear?" " Make sure you put your jumper on. Wheres your wellies?" The reply is "I don't know you're the one that tidies everything away"

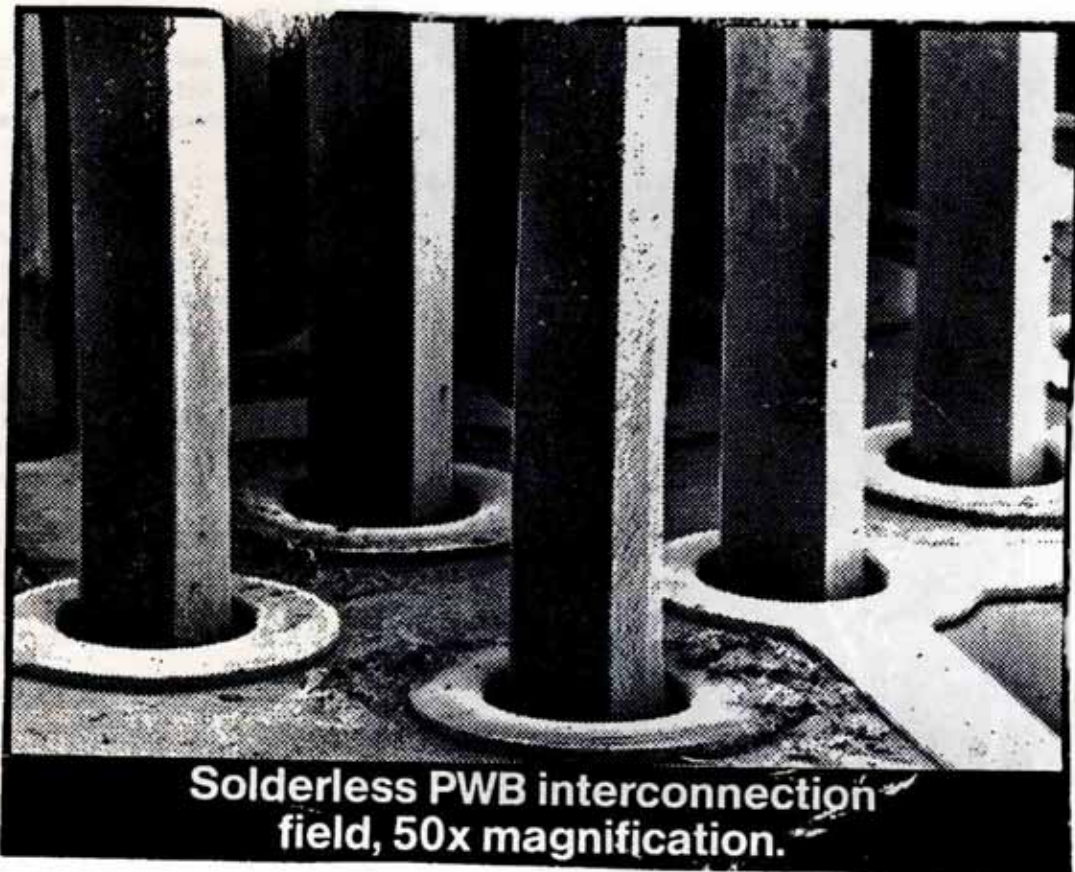
You may be thinking by now - why don't you stay in bed? Its less traumatic to get up and make sure he has everything he needs. AND THIS IS JUST FOR A DAY CONTEST!

The overnight ones are great for putting a few more grey hairs on your head. "Where are you sleeping tonight?" is the question, the answer "I dont know, could be the van!" Because of this answer your living room becomes festooned with mattresses, pillows blankets etc anything that will help to keep him warm. The big moment comes and off he goes. You wave him goodbye thinking "I hope he will be warm enough."

The first few hours are okay. After that you start talking to the dog - especially if you're on your own. You manage to get through the evening and after taking the dog for a walk you ascend the stairs clutching a hot water bottle thinking "I hope he's okay, Won't be long before he's home." You manage to get through the following day without too many mishaps although I have been known to rip finger nails off and stand on rusty nails when he is YOU KNOW WHERE.

The hour draws nearer when he is due to arrive home and as I sit looking at bare brick walls, (just one of the many jobs that need doing) I ask myself IS IT WORTH IT? But when that knock on the front door comes and you trip over the dog in the rush to open it and you see a scruffy, unshaven, bobble hatted, socks tucked into wellies husband looking like a little boy who has thoroughly enjoyed himself. YES - it has been worth it and I wouldn't have it any other way.

Pauline



**Solderless PWB interconnection field, 50x magnification.**

British Telecommunications plc

## Pirate radio men fined

INVESTIGATIONS were carried out in the Moreton area after radio interference on the Medium Wave band to emergency services and domestic reception was reported, and eventually two premises were raided, Wirral Magistrates were told by Mr Laurence Dunn, prosecuting.

Three young men involved in the running of a pirate radio station, Radio Mersey Waves, "for a hobby", faced the court.

Peter William Jackson, aged 17, of Meadfoot Road, and Paul Robert Wildman, aged 18, of Melrose Heights, both Moreton, admitted using broadcasting apparatus without a licence and also using a station for wireless telegraphy without a licence. Kenneth Dandy, aged 21, of Ternway, Moreton, admitted using a station without a licence.

Jackson and Wildman were each fined £100 and Dandy £50. They each had to pay £50 costs.

The court was told a large amount of equipment was stolen after the raids in November and December at Melrose Heights and Sandbourne Heights. The magistrates ordered it be forfeited with the exception of paperwork, a watch, a phone set and records. Items confiscated included transmitters, aerials, adaptors, receivers and cassette players.

Mr Dunn told the court the main transmitter used by the station had still not been located and he alleged the station was still on the air last weekend.

Mr Stephen McPeake, defending, said it was not a commercial station and no adverts were accepted. He said the three accused were pop enthusiasts occupying their time. Unfortunately, their enthusiasm went beyond the law.

He said they did not think they were doing any harm and chose a wavelength not used by others in the locality. They denied further involvement with broadcasting.

WIRRAL NEWS 23.1.86

## Calling my Yukon fan!

LOCAL radio producer Jacqueline France will say hello on the air today to her most distant fan—7,000 miles away in the Yukon.

Jacqueline, of Radio Newcastle, was amazed to receive a letter and cassette recording of her early morning news reading from the Arctic town of Elsa, in Canada.

Her voice was picked up by Radio enthusiast Brian Vernon, formerly of Bolton, Lancashire, who used an aerial consisting of a mile of wire strung out in the bush.

## Row as taxi radio chat hits church services

AN UNHOLY row has developed between a church congregation and a nearby taxi firm.

The voice of the radio car controller is being picked up by the church public address system and often booms out during services.

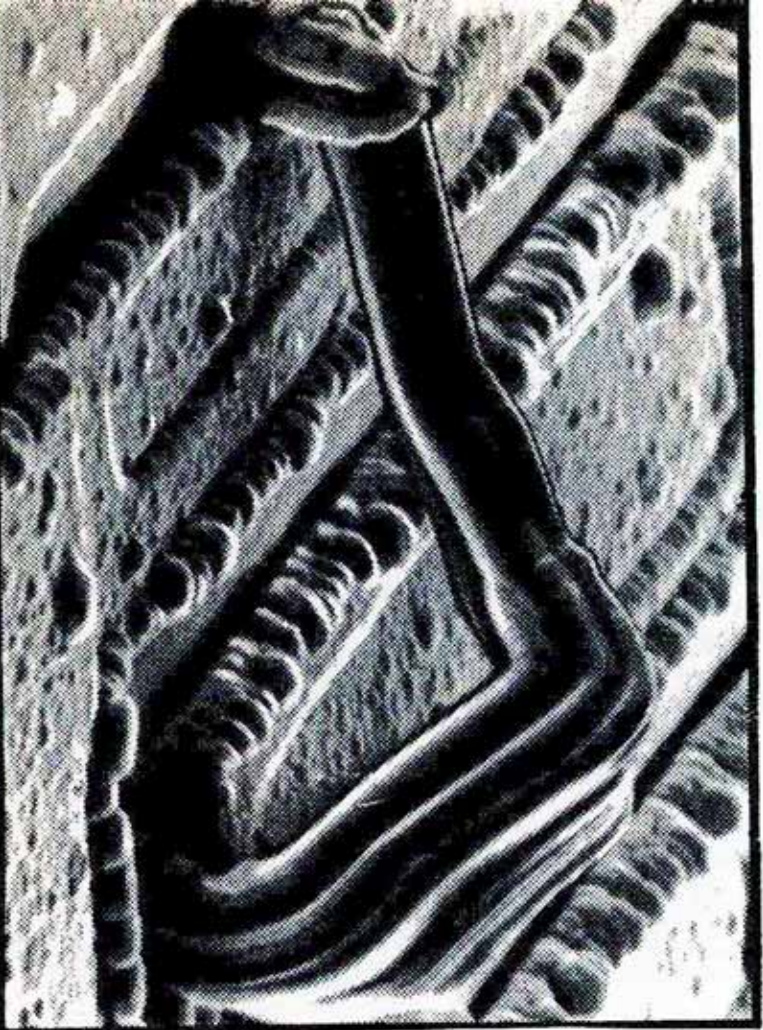
Now the congregation has signed a petition asking the district council to take action against the car firm, United Taxis.

The Rev. William Frame, of Colness Memorial Church, Newmans, Lancashire, said: "It is very annoying. It has even happened during communion services."

### Modify

Now Motherwell district council's planning committee wants the taxi firm to remove its radio aerials.

But taxi boss Robert Shaw said: "Our radio equipment has been checked three times by the Home Office and it's come up to standard. Our equipment is perfect."



Aluminium filament erupting from emitter contact.



## LADIES EVENINGS

---

An invitation is extended to all ladies and their friends to come along to the Cricket Club at Irby for a ladies evening where you can be guaranteed of a warm welcome and a very enjoyable evening.

In February the topic was bedding plants and shrubs. Bill Fletcher showed us some slides of various plants and bedding displays. He also brought along a selection of house plants and later in the evening there was a question and answer session. Later on there was a small meal and a raffle.

By the time this article goes to print we will have held another ladies evening which is entitled COBWEB PAINTING. Mrs Evers-Swindels is coming from Ruthin and will give us a talk on how she incorporates spiders webs into her paintings.

Future dates for your diaries

---

October 15th - Bridale Glass

This is a glass blowing demonstration and a ladies evening not to be missed. It is also a chance to buy an unusual early Christmas present.

All the ladies evenings start at 7-30pm for 8-0pm at the Cricket Club. So come on ladies, accept the invitation, I would love to see you. If you havn't transport get the old man to bring you. He can have a drink in the bar with the other husbands who get pressed into taxi service.

See you soon - I hope!

Pauline

---

### COMPUNET The magazine on your telephone.

Compunet is an electronic mailbox set up primarily for users of Commodore computers although it can be accessed by any computer with a 1200/75 (V23) modem and the right software. You wont get very far without an I.D. and a password and that will cost you money, about the same as joining Prestel.

If you are a member of Compunet you can contact me by using the I.D. PRM1.

The material available from Compunet covers a number of computer utilities, a vast number of games, some free and some not, an area called a Jungle for whatever you want to display for others to read, to name but a few.

In common with other mailboxes it has a number of Specialist Interest Groups one of which is devoted to amateur radio and I have extracted an item from this which may be of general interest.

Peter GbcGJ

NARSA AT BELLE VUE - 1986

-----

As your duly appointed NARSA rep this space should be filled with a thrilling account of all that went on at Belle Vue this year. Unfortunately I spent the whole of that weekend flat on my back so here follows Paulines review of what happened.....

Paul G6JZP

"Your'e home early." I said to my husband.

"My back hurts." he said. And with these words my Belle Vue headache had started. Paul had been complaining about his back for a few days and it had been gradually getting worse. After the doctor had left muttering something about "being muscular - hot water bottles" I went upstairs to do my Florence Nightingale act.

"I should be OK tomorrow." he said, wincing with pain. "Your'e not going anywhere," I said " I'll drive the van." "You can't. The gear linkage has gone." My headache got worse.

I rang Phil (G6SNO) to let him know what had happened. Could he take the things for the club in his car to Manchester? No was the reply - a van or estate car was needed for the display boards etc. and only Pauls van was available.

( At this point I should point out that not only was I supposed to be taking the all the clubs stuff to Manchester but also the RAYNET paraphernalia as I was also NARSA rep for them. Talk about a lynchpin! - Paul.)

At this point I rang my my brother in law to see if I could borrow his father's estate car. Luckily my father in law had just gone on holiday so the car was free. I gave my brother in law an ultimatum. Either he could get up early on Sunday for a 6.30 start and drive me there or could I take the car.

I borrowed the car.

Another 'phone call to Phil to tell him I was on the way over to pick up all the gear waiting at his house. He wasn't in but his wife Jan said he would probably be back by the time I got around. On my way over I stopped off at the takeaway to order a meal for four. I hadn't mentioned that we were having friends over for a meal that night had I? Frank (G4DBG) and Heather Kneale had arrived to be met by a ranting lunatic gibbering something about bad backs and Belle Vue! At least when they come to the Robinson household they are never bored! I think they enjoyed themselves watching me going slowly round the bend.

Anyway back to the story. I duly arrived at Phils to be met by Jan who told me that Phil had gone round to our house. I looked at her in disbelief. She sat me down and made me a cup of coffee. Phil eventually arrived back and then we piled everything into the car before I went home to our guests.

The following morning Eddie (G6XHG) came round to the house for a lift as we had arranged that Phil and I would drive in convoy to

Manchester. As we set off I asked Eddie if he knew the way there. No was the reply. "Never mind" I said "We'll follow the signs." Eventually we found our way there and once inside the hall we started assembling the stand. I left them to it and started helping out the RAYNET stand as Paul was supposed to be helping them as well'

I wasn't able to give any constructive help on the stand when the rally opened so I wandered around the stands instead. I actually found it quite interesting and as I can now tell a capacitor from a resistor I wasn't too bored. I even did some door duty in the afternoon with Rennie (G0CDI).

Peter (G6CGJ) arrived in the afternoon with his van so I was able to soft soap him into bringing all the equipment back so I was able to get away reasonably early. On arrival back home I was treated to lovely box of chocolates from Paul and a cup of tea from my daughter. It was Mothers Day after all!

-----  
Pauline

(Wasn't that better than my account of lying in bed all day? For those that are interested I will be going to the NARSA AGM in July. Paul G6JZP)

SMILE PLEASE...

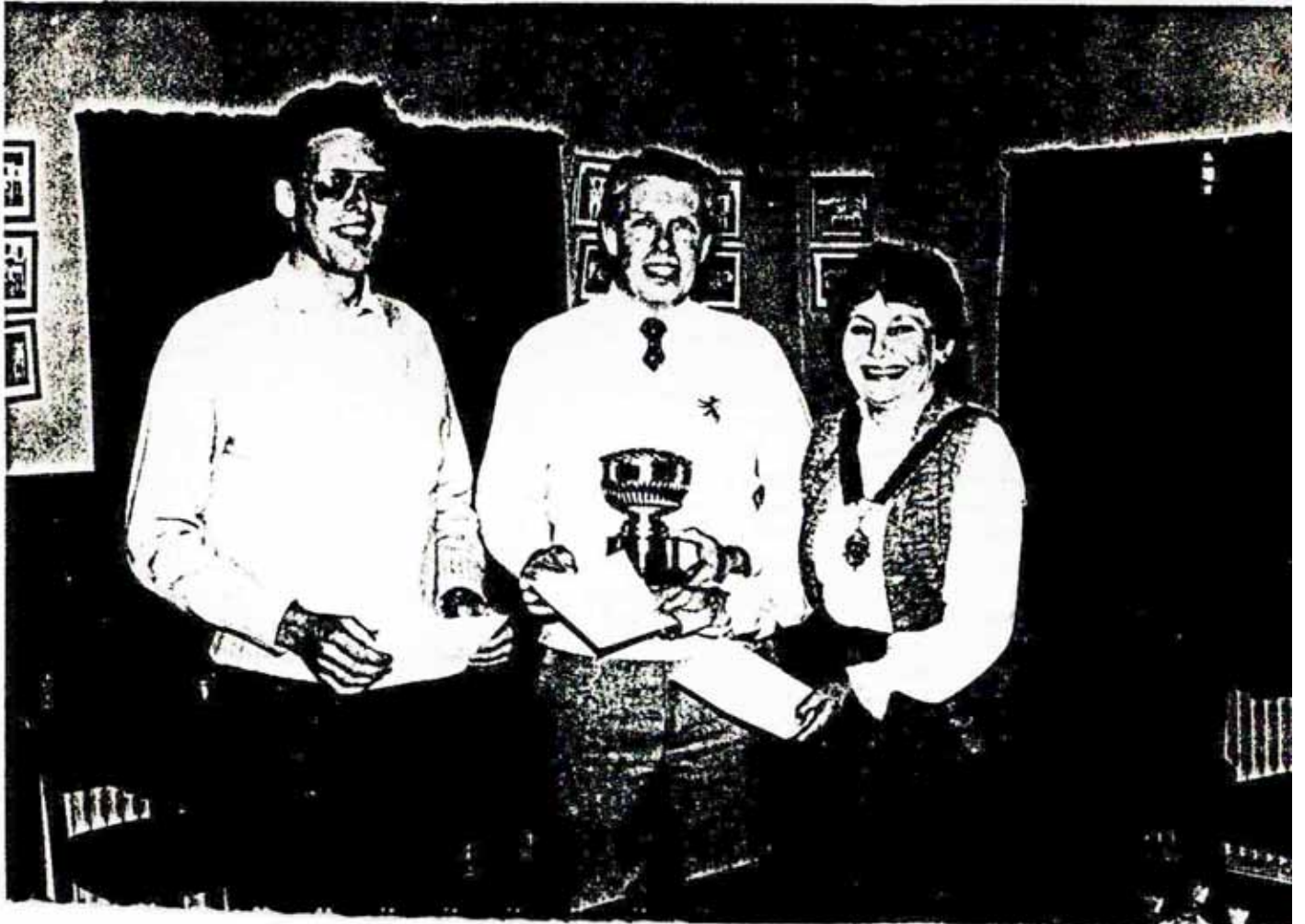
In this space there was going to be a photo of our stand at the rally, as I was going to take my camera along. Instead, here is a short report of why there is no photograph this time.

I was on my way to the rally, going along the M56, and prepared to give a hand to the lads on the stand, and put up some display material. When trying to overtake an Escort, I discovered that the car had lost power. I overtook the Escort but then I heard a strange noise, so I pulled of at the Frodsham exit which I was about to pass, and the Escort driver honked at me and waved. I stopped on the main road amidst smoke and banging from the engine. The big-ends had gone.

I nursed the car home, took a look, and decided no way it was going to go far. So, I took a bus, a train and a taxi and eventually arrived at Belle-Que at 4.15pm. (without camera) and did a quick once round, buying a few goodies on the way. Gave the lads some help clearing-up, and hitched a lift home.

By the way, the Escort driver was Gordon, G8MMM, giving me a wave !!!

GERRY G8TRY





### A NIGHT TO REMEMBER

Last years Social and Presentation Evening

Joan Heathershaw, G4CHH, 1985 President of the RSGB, is seen here presenting some of the prizes at last years Social and presentation. Any nerves that some of the members may have initially had were soon dispelled by Joans' friendly nature, and a very enjoyable and memorable evening was had by all.



## DEPARTMENT OF TRADE AND INDUSTRY

Radio Regulatory Division  
 Room 613 Waterloo Bridge House Waterloo Road London SE1 8UA  
 Telephone (Direct dialling) 01-275) 3323  
 GTN 275) .....  
 (Switchboard) 01-275 3000  
 Telex 261969 (DTIWBH G)

G L Adams Esq  
 2 Ash Grove  
 KNUTSFORD  
 Cheshire  
 WA16 8BB

Your reference

Our reference RD/CH/500/3

Date 30 June 1986

Dear Mr Adams

On behalf of Mike Lunn and myself I would like to thank you for your hospitality during our stay and for the tour of the repeater sites. I would also be grateful if you could pass on our thanks to the rest of the Repeater Committee and to Geoff Booth for showing us GB3SE in the making.

2 As you were aware, Mike Lunn made many notes not only at the meeting in the evening but also during the day. Most of what we were told must now be considered as part of the Department's review of repeater licensing but I hope you will, in the meantime, find the following observations useful in answer to some of your questions on other amateur matters.

3 Mobile Log Keeping - Under the current licence review, log keeping is one of the many aspects that is being considered. A further alternative to dispensing altogether with the mobile log, as you suggested, is the possibility of transferring written logs into tape cassettes for the safety and convenience of mobile amateurs and we hope shortly to be having discussions with the RSGB on these aspects of log keeping as part of the licence review.

4 Age Limit - The reason for the 14 years' minimum age limit to holding an Amateur Licence is because that is the age of responsibility in law for one's actions. Therefore we do not anticipate a change in this licence condition.

5 DTI Address - Although we aim that most enquiries can be handled by the Radio Amateur Licensing Unit in Chesterfield, we are aware that from time to time amateurs may feel it necessary to speak to someone in Waterloo Bridge House. Our enquiry number is, therefore, given on our new information sheets which also aim to keep amateurs better informed about what DTI are doing. On top of this we are currently compiling a mailing list which will enable us to provide the amateur press with all copies of future Press Notices and Information Sheets and groups such as yourselves can also be added to this list. If you can let me have an address I will be pleased to arrange for it to be added to the list.

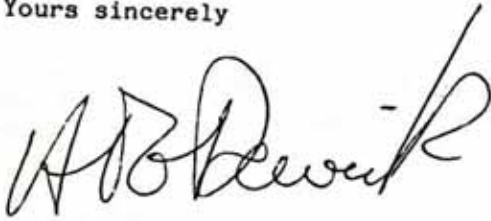
6 Details Withheld - The reason behind blocks of 'particulars withheld' appearing against callsigns in the RSGB call book is the result of their being processed together at Chesterfield for purely administrative reasons. We have, however, noted the point made at the meeting concerning the possibility of giving details of the town or county even when details are withheld.

7 Use of Repeaters for Sending Data - With the RSGB, we are currently looking into the unattended operation of stations when used for relaying data, in the context of packet radio, and the unattended operation of repeaters for conventional data will be looked into at the same time.

8 Currency of Morst Test - I am enclosing the recent DTI Press Notice concerning the currency of the Radio Amateur Morse Test which you may care to copy to your members.

9 Once again, I would like to thank you for a very useful and instructive day and I am sure our greater understanding of your problems will speed us in our review of repeater licensing to the benefit of all repeater groups. We hope the review will be completed very quickly and GB3SE will not be much longer delayed. I am sending David Evans at RSGB a copy of this letter for his information.

Yours sincerely



A F G DEWICK

Enc: Press Notice

cc. David Evans

ca! ca! ca!

THE CORNISH AWARD.

The County of Cornwall contains a small but increasing number of radio amateurs and in order to promote further contacts the Cornish Radio Amateur Club have introduced the Cornish Award. The Club will issue award certificates for three specific areas of operation: 1.8-146Mhz, 432Mhz and higher or RTTY (any band) with each having a choice of 3 classes of attainment. On the basis of 1 point per QSO, a Class 1 certificate for the h.f./144Mhz section requires 30 points, Class 2, 20 points and Class 3, 10 points Correspondingly 432Mhz and up, 9, 6 and 3 points and RTTY 20, 15 and 10 points. Non-European claimants are required to obtain 15, 10 or 5 points for the h.f. section with the requirements for the other options as for Europe. Valid contacts cover resident or visiting stations, operating in all permissible situations (A,P or M etc) Search back through your logbooks because all contacts made since 1st January 1946 (yes 1946) are valid! Further details available by S.A.E. from:-

Mr.J.E.Bowben, 22, Whites Close, Polbreen, St.Agnes,  
Cornwall. TR5 0TU or Tel. (087255) 2278

Peter G6CGJ.

HOW TO INFLUENCE PEOPLE AND MAKE FRIENDS  
*(Or loose your licence in one easy lesson)*  
From Geoff - G8DZJ

On 23<sup>RD</sup>. June, 1986, I had the pleasure of spending the afternoon with two executive officers from the Department of Trade and Industry, from Waterloo Bridge House, London.

Firstly the officers visited my shack, where it was possible to explain the basic In's and Out's of an amateur radio station. It was also possible to show them GB3SE, The Potteries' Microwave Repeater which happened to be on the test bench running into a termination watt meter, but is not yet licensed. The said gentlemen had many questions to ask about all aspects of Amateur Radio, including planning permission for aerials. After a period of time, we prepared to leave to start a journey visiting the local repeater sites.

Werrington, Stoke-on-Trent, was the first stop where our visitors from the D.T.I. were able to obtain first hand experience at finding out what was involved, and what an amateur repeater looked like, (well our repeaters anyway).

All aspects of GB3VT and GB3ST were covered, our visitors were able to check the switch-off operation for themselves, (all repeaters need to have this to comply with their licensing conditions). They also asked about lightning conductors, (rather appropriate for GB3ST, when one remembers that it was struck by lightning back on 5<sup>TH</sup>. June, 1980). Both repeaters were demonstrated as operational by turning on their monitor speakers, thus making it possible for the D.T.I. officers to listen; this was about 3.30 p.m. to 4.00 p.m. Were you operating through "ST/VT" at that time?

Next it was time to double our A.S.L. and visit GB3SM in the Staffordshire Moorlands. First things first, it has to be said that the men from the D.T.I. were most impressed with our "country side", and the view available from the SM site was most spectacular, (All be it rather windy!) After getting out of the car I instructed our visitors to put their hands in their pockets, unless, that is, they wanted to test our site security! (The SM geese and dogs enjoy a chew on the odd finger, and a D.T.I. finger may prove to be a different flavour than your average repeater builder's finger!)

The SM building was built in 1849, the year is indicated on a stone in the brick-work and this was pointed out to our visitors. Whilst at the SM site I produced my FT70BR and spoke to two stations with the repeater speaker switched on, just to prove that the equipment did indeed function, yes, I did have my log book with me, and after producing it, that was also looked at. Just before leaving the SM site I asked our D.T.I. visitors to stand below the repeater aerials. After waiting a little while, there was still no sign of any lightning so instead I had to make do with just taking a photograph!

During the journey back to my Q.T.H. in the car, many discussions were had, such as the names of the "Real Ale" pubs closest to "Waterloo Bridge House", and the increase in numbers of female operators, to name but two.

My thanks go to Tony and John of the D.T.I. for making this an unforgettable afternoon, and their many complimentary comments made regard to what they had seen. Without doubt this was P.R. work on both sides, of the very best possible.

GEOFF - G8DZJ



## FUNCTIONS

The main functions of the division are:-

- International negotiations on the use and allocation of radio frequencies and on the technical and operating standards for radio.
- Licensing of non-Crown users of radio : equipment performance specifications and technical criteria.
- Enforcement of the Wireless Telegraphy Acts : control of interference.

## ADDRESS

Department of Trade and Industry  
Radio Regulatory Division  
Waterloo Bridge House  
Waterloo Road  
London SE1 8UA

## ENQUIRY NUMBERS

(ALL NUMBERS PRECEDED BY 01-275 UNLESS SPECIFIED OTHERWISE)

Cable and Satellite Broadcasting	3122
Fixed Services	3174
International Regulations	3052
International Standards	3391
Legislation on Radio	3353
Licences	See opposite
Monitoring	0462 45457
Propagation systems and antenna — ring 3000 and enquire	
Space Services	3138
Type Approval	01-660 8456

# DTL RRD

## **LICENSING ENQUIRY NUMBERS**

TV licences are the responsibility of Broadcasting  
Department of the Home Office — Tel. no 01-213 6285

(ALL NUMBERS PRECEDED BY 01-275)

Aircraft	3024
Alarms	3184
→ Amateur — — — — — — — — ←	3316 ←
BBC	3207
Citizens' Band	3316
Citizens' Band (Complaints of interference or licence abuse)	3339
Cordless Telephones	3008
IBA	3207
Induction Communication	3058
Local Communications	3256
Local Radio	3207
Long Range Paging	3387
Metal Detectors and Model Control	3058
Offshore Communication (ie Fixed Links to oil and gas platforms)	3163
On Site Radio Paging	3114
Point to Point Links — On Shore	3034
Police and Fire Services	3256
Private Mobile Radio (Land)	3152
Private Mobile Radio (Service Provider Systems)	3284
Private Mobile Radio (Maritime)	3137
Radar Speedmeters	3058
Radio Microphones	3058
Search and Rescue	3256
Ships	3316
Telapproach	3058
Telemetry — Low Power	3256
Testing and Development	3119
TV Receive Only Satellite Receiving Apparatus	3221
Vehicle Detection	3058
Velocity Sensors	3058

# MEMBERS ONLY

Do YOU attend meetings and mingle with the flock ?  
 Or do YOU stay at home and criticise and knock ?  
 Do YOU take an active part and help the work along ?  
 Or are you only satisfied to just belong ?

When the buisness session comes along, do you pretend you're sick ?  
 Then leave the work to a few and talk about the clique ?  
 Think this over member, YOU know right from wrong,  
 Are YOU an active member, or do YOU just BELONG ?

### NEW MEMBERS

We are pleased to welcome the following new members -

G6YCC	Richard Barnes	Figher Bebington.
GLUHO	Harry Court	West Kirby.
	Frank Crowther	Upton.
G4DEE	Dr. John Clark	Pensby.
	Dereck Edwards	Bebington.
G1GVX	Gerry Dove	Lower Bebington.
G1TAW	Tom Wardle	Moreton.
G1TWZ	Howard Jones	Wallasey.

Thank You all for joining our club. We hope you have a long and happy time here.

### Other members news.

We would like to welcome back Bill Bibby, G4SYJ, to the Club.  
 One of our founder members, Peter Hilton G8GYO, and his wife moved to St. Albans a few years ago, due to work commitments. We are pleased to say that Peter has not only stayed a member of the club during that time, but has now moved again, but this time its back to Heswall for them both.  
 Graham Stamp, G8NNS, and his wife Linda, G8TFW, have moved house as well. This time , it was a relatively short journey across Wallasey. We are pleased to say that Graham was soon reading the news on Sunday again after the move. Graham is another one of our founder members who has done much for the club.

### MEMBERS ADVERTISEMENTS

Texas TI 99 Computer  
 16k colour, c/w PSU, recorder lead and demo tape. £35 onc

One pair of Pioneer Car Stereo Speakers. £7.50. ono.

Contact Frank Robinson, G8REQ

.....

4 OFF 2 x 12" Boxed Loudspeakers. (Ex disco eqpt.) £20 each.

Contact Gordon G8MMM 336 7143

.....

Yaesu FRG 7 ) All VGC.  
 FT 200 )  
 HF Linear 600 watt. )

All reasonable offers invited.  
 Contact David Barrowclough G6ETG 678 8129

# RAYNET



IN ACTION & ON DISPLAY AT  
FIRE & RESCUE

## YELLOW FINGERS.

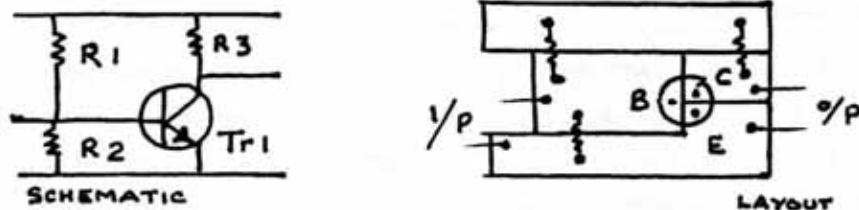
( or a guide to various ways of making printed circuit boards.)

This article is meant to give a few ideas of how to design and etch your own P.C.Bs. Those of you who feel proficient enough can skip it and go back to monitoring .325, although there may be a few helpful ideas contained within these scrawlings. I intend to split the subject into separate methods each with its own merits for one particular job or another.

### PAD TYPE P.C.Bs.

This is perhaps the easiest way of making a P.C.B. but it has its uses. The copper clad board is coated with paint ( car type aerosol paint, nails varnish etc.) and allowed to dry. The surface is then scribed into separate squares, each one a junction, connecting various component parts.

Fig. 1



This board is then etched in ferric chloride solutions, either a proprietary brand or one made up from crystals. This process is greatly speeded up by the addition of heat. The way that I have found the best and cheapest is a photographic development tray half full of etchant, floating on a sinkful of hot water, simple but effective. Heating elements could be tried, but ferric chloride attacks most metals not just copper. Incidentally - it also attacks clothes, skin and other organic substances. **BE CAREFUL !!!** It also stains stainless steel ( which will no doubt impress the AYL ). Once the board has been etched, which will probably take ten to fifteen minutes, the paint can be removed with acetone or household paint thinners. All that is left is to drill holes where desired and you are now the owner of a simple but practical P.C.B. This form of P.C.B. can be useful in making H.F. Pas, but at higher frequencies the stray capacitances formed by the pads would be detrimental to the whole design. I have even seen an SSB modulator built on a board designed in this way.

### ETCH RESIST PENS.

A rather nice device came on to the market in the 1970s which made P.C.B. design easier, this was the DALO pen/etch resist pen. These pens are similar to a felt tipped pen but contain a very thick ink/paint that is resistant to etchant when dry. This allows constructors to copy P.C.B designs from magazines more easily than has been possible in the past.

18

The method is fairly simple, lay your clean piece of copper clad board under the article to be copied, then mark each hole position with a pin or end of a compass, remove the board and then join up all the holes as shown with the etch resistant pen. The board can then be etched in the usual manner. Unfortunately this method has a couple of drawbacks, it is very difficult to produce even-width neat looking tracks, also, the pen has a nasty tendency to ooze large quantities of ink invariably in the wrong place ( the tip has a valve mechanism which issues forth torrents of ink when pushed too hard). Having said all this, it is still probably one of the most convenient ways of making a custom P.C.B. It is also good for writing warnings or labelling inside equipment. Incidentally, you do not need acetone to remove it - Servisol switch cleaner or W.D 40 does the trick admirably.

#### ETCH RESIST TRANSFERS.

Available for some time now have been etch resist transfers, these are similar to Letraset in appearance and use. They enable the home constructor to produce professional looking P.C.Bs at a fairly low cost. The transfers can be bought in packs of assorted pad shapes, d.i.l package layouts or lines. You can also buy sheets of one particular pad layout. When the transfers are applied to the board, not only do you get a nicely shaped and nicely finished pad but also a hole is etched in the pad during the etching process, this allows for precise and easy positioning when drilling the board. Laying out of I.C. holes is no longer a problem as you can use the transfers which precisely position 14,16,18 or more perfectly formed pads. After etching the transfers can be wiped off with acetone or some other suitable solvent. The time spent in preparation of such a board is directly proportional to the degree of professionalism realised in the end product.

#### ULTRA VIOLET RESIST BOARDS.

The three previous types of board preparation all have one drawback, once you have etched the board and removed the etch resist - that's it - no second chances, all your precious time consuming layout is lost. If there is a mistake you have got to start all over again. U.V. resist coated boards solve this problem. Basically these boards are coated with a U.V. sensitive layer, when this is exposed to U.V. light it becomes soluble in sodium hydroxide ( Caustic Soda). Therefore, for example, if you place a Yale key on the board and expose it to U.V. light, then place the board in a suitable strength solution of sodium hydroxide, the only piece of resist that would remain would be the shape of the Yale key. After etching the board the key shape would be left in copper. This means that

as long as whatever you make your design out of is transparent to U.V. where you do not want copper and opaque to U.V. where you do want copper to remain. You have cracked it!

The ideal layout medium is drafting film, and you can use transfers on it, Letraset, and most useful, you can use drafting pens such as a Rotring pen which allows for great precision. This is the way I make 99% of my P.C.Bs. If you make a mistake, or miss off a connection you can alter the master copy and produce another board. Consequently I have in my collection many films ranging from Iambic keyers, radio transceivers through to the P.W. Meon transverter - if anyone wants one of these boards give me a call.

The U.V. resist boards are available from R.S., Maplin and many other suppliers and U.V. exposure units are also available from such distributors. Standard U.V. Striplamps such as the small ones used for Discos etc. can be used as long as you move them around during the exposure time to even the intensity over the board area. Also, exposure times vary from one board maker to another so test pieces are a good idea, but to give some idea, R.S. boards need approximately seven minutes exposure in one of their own exposure boxes.

Using U.V. resist boards produces probably the best printed circuit boards that the amateur can make. Double sided boards become easy as you can place the two layouts on top of each other to enable you to precisely position through connecting holes. There are also all kinds of other techniques you can use to produce master artworks e.g. 2:1 photo reduction, but these can become costly and difficult to do.

Well, I hope that these quick sketchy outlines on P.C.B. production haven't bored you too much, but they may encourage you into having a go if you have never tried before. The article was meant to be fairly simple in its outline of the techniques, but if you need any help, information, boards or indeed any boards making for you, contact me and I will help as much as I can. This hobby of ours is meant to be just that, a hobby and fun, and P.C.B. production can be interesting and satisfying when a good job is done, but the chemicals involved can be hazardous if not treated properly.

Lets hope we see some more home made P.C.B. based projects constructed and don't forget the construction competition later in the year.

Next month. 2000 watts H.F. from a liquid nitrogen cooled BFY 51 H.I.

'73' Chris GODVV

Lacytown Georgetown  
Guyana  
07-05-86

Dear Mr Gerry Scott G8TRY,  
Personal Greetings, to you and  
the members of the Wirral and District Amateur Radio  
Club. I do compliment you for your contribution to the  
Amateur Radio Service individually and as a club  
and I must also congratulate you on your achievements  
in the Amateur Radio Service

C/o Office of the City Clerk,  
Mayor and City Council,  
Lacytown, Georgetown.  
Guyana. 7/5/86

Dear Mr. Gerry Scott G8TRY,

Personal Greetings, to you and the members of  
the Wirral and District Amateur Radio Club. I do compliment you for your  
contribution to the Amateur Radio Service individually and as a Club and  
I must also congratulate you on your achievements in the Amateur Radio  
Service.

By way of personal introduction, I am a serious Short Wave Listener,  
with a deep interest in the Amateur Radio Service, so as to fulfil my  
desire to participate in it as a licenced amateur radio operator.

At this moment, I am the owner of two recievers, one of which is  
an Short Wave Reciever and the other one is a Realistic Comm-  
unications Reciever.

At this time, I do make a special request of you to obtain for me  
a copy of the 'Radio Communications Handbook' and or other copies of any  
other book which concerns Amateur Radio, so that I can read, study and  
know the theory of Amateur Radio and prepare myself to sit the Radio  
Amateurs Examination and I am confident that I would pass it and be a keen  
licenced Amateur Radio Operator. When I do recieve my licence and callsign,  
I would then set up my station and participate in the Amateur Radio Service.

There are no books on Amateur Radio available in Guyana. We therefor  
have to obtain them from overseas. Guyana is experiencing a serious  
economical crisis, with a restricted amount of Foreign Exchange of which we  
are not able to send out.

Because of the above mentioned circumstances and my desire to be a  
licenced Amateur Radio Operator, I do make this special request of you.  
I must compliment you on setting up the Special Event Station with the  
special callsign GB2IWF which was operating in the HF-VHF-UHF Bands in the  
Boat Museum, Ellesmere Port to celibrate the International Waterways  
Festival on 25th-27th. May 1985, the Spring Bank Holiday.

I do hope that you have established friendly contacts and relation-  
ships with stations in South America and the rest of the World on the  
different modes and frequencies. I do hope that this letter was not too long  
and boring, but was very much interested and informative and also do hope  
that it did not inconvenience you in any way. I must also thank you for  
your consideration and concern for reading and answering this letter.  
I do wish you all sucess and greater acheivments in all your future Amateur  
Radio operation and Club activities.

I do wish you Happy DX and 73's. It was an honour to write you  
this letter.

I am

Yours

L. Stanley Browman.

of course and club activities! I do wish you Happy DX  
and 73's. It was an Honour to write you this letter

I am

Yours

L. Stanley Browman.



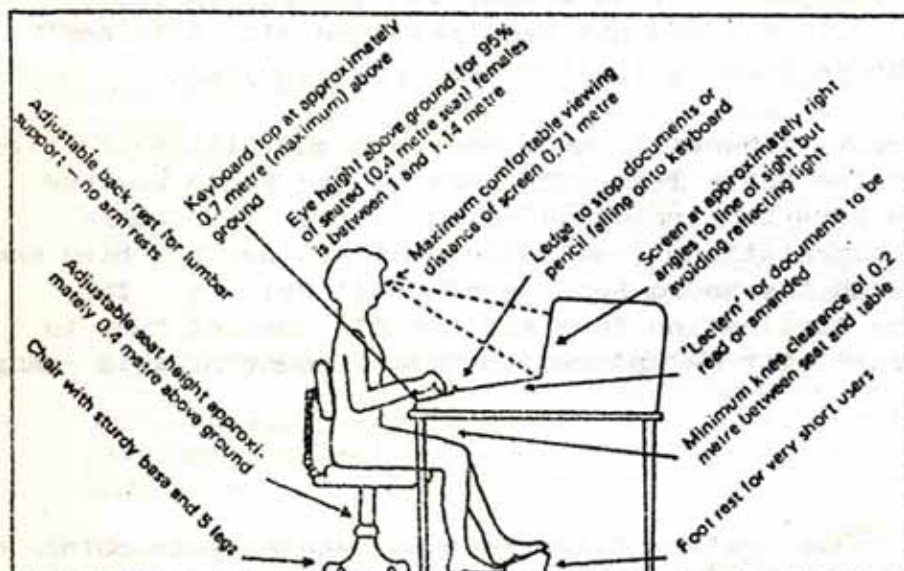
## MORE ON VDUs

### YOU AND THE VDU

A VDU is in fact a 'Visual Display Unit' and is now in use in most workplaces in Britain. This Nalco Health and Safety Newsletter aims to draw attention to the hazards and effects of working with VDU's can bring, to help members not familiar with the Code of Practice agreed under the 'New Technology Agreement' to familiarise themselves:

All word-processor operators should have had an eye-test prior to operating a VDU. This should be arranged with your employer. Migraine sufferers using VDU's will probably need to be monitored and, if an increase in migraine is experienced, it is recommended that this be reported to their doctor. Operators must note also that certain tranquillisers affect the speed of eye-movement and may therefore cause eye-strain.

It was agreed that VDU operators working continually at screens should preferably work shorter periods i.e. one hour on and a fifteen minute break from the screen but, if this was not possible, a spell of no longer than one hour and fifty minutes working at the screen with a break of not less than thirty-five minutes, again taken away from the screen.



VDU's should be positioned so that the operator is not directly facing a window since the contrast of looking at a dark screen and direct natural light or sunshine on the screen can cause eye-strain. The VDU can be placed at right-angles to the window to avoid glare. If glare cannot be avoided, blinds on the window should be considered.

Noise should be kept to a minimum, as it can be considered to be very stressful if a printer is being operated without a printer-hood, in addition to the background noise of typewriters, telephones, conversations etc.

Word-processor and full-time VDU operators should have adjustable chairs with adjustable back-rests to suit each individual. It is also advised that document holders be used so that eye-movements can be kept at screen-level when inputting work, again to minimise eye-strain.

There are masses of information in relation to VDU's and a lot of conflicting reports. Not all the information given has proved to be absolutely true but statistics show that there is a leaning towards working on VDU's and miscarriages/birth deformities. (See

OR

LESS OF THE KEYBOARD,  
MORE OF THE MIKE, OR KEY.

# DTI Press Notice

Department of Trade and Industry

1 Victoria Street SW1H 0ET

Press Office: 01-215 4467

Out of hours: 01-215 7877

Number: 86/457

Date: 18 June 1986

## CURRENCY OF RADIO AMATEUR MORSE TEST

The Department of Trade and Industry announced today that a pass in the Radio Amateur Morse Test will be regarded as valid for life. Previously, where a break of over 12 months had occurred in licensed operation, or where a licence had not been obtained within 12 months of having passed a Morse Test, a further test was required.

This change of policy will benefit radio amateurs and will bring into line the currency of the Morse Test with that of the Radio Amateur Examination, where a pass is already valid for life. The change occurs following representations from radio amateurs and has been made after consultation with the Radio Society of Great Britain. The Amateur Radio Licence Application form and the DTI booklet "How to Become a Radio Amateur" will be updated to take account of this change as soon as possible.

### NOTES FOR EDITORS

1 A pass in the Radio Amateur Morse Test is necessary to obtain a Class A licence, which gives access to all the amateur frequency bands. The Radio Regulations require that amateurs using frequencies below 30 MHz (in MF and HF bands) must be competent in Morse.

2 The Morse Test is conducted on the Department's behalf by the Radio Society of Great Britain (RSGB). The test fee is £7.

3 Morse for life represents yet another radical change by the DTI in the regulation of the Radio Amateur hobby; it follows closely on the release of the new frequency band at 50 MHz, the award of Morse testing to the RSGB and the relaxation for Class B licensees to use Morse.

ENDS

DO YOU OPERATE ON 2-METRES 145MHz, 70-CENTIMETRES 433MHz OR 23-CMS 1297MHz?

If you operate on VHF and/or UHF, then you will be aware of the extensive repeater network which exists in certain portions of the 145MHz and 433 MHz bands. Similar facilities will be available shortly on 1297MHz.

In the North West of England there is a large and carefully planned repeater network which gives good service to FM operators throughout Lancashire, Cheshire, Staffordshire, Greater Manchester, Merseyside and North Wales.

These repeaters include:-

On 145MHz (2-metres VHF) - Ch RO GB3MB North Manchester & parts of Cheshire  
 Ch R1 GB3VT Stoke-on-Trent, The Potteries & Staffs  
 Ch R2 GB3MN South Manchester, Liverpool & parts of Lancashire & Cheshire  
 Ch R6 GB3MP Merseyside incl. Liverpool, North Wales, Lancashire and most of Cheshire

plus on 433 MHz (70cm UHF)-Ch RBO GB3LL Llandudno, North Wales  
 Ch RB2 GB3ST Stoke-on-Trent, Staffordshire  
 Ch RB4 GB3MA North Manchester  
 Ch RB6 GB3CR Chester, Cheshire & North Wales  
 Ch RB10 GB3LI Liverpool, Merseyside  
 Ch RB12 GB3MT Winter Hill (RTTY & DATA only)  
 Ch RB13 GB3SM Leek, Staffordshire Moors  
 Ch RB14 GB3MR South Manchester & Cheshire

and on 1297 MHz (23cm UHF)-Ch RMO GB3MC Winter Hill (Beacon & Repeater)  
 Ch RM3 GB3SE Stoke on Trent (Beacon & Repeater)

All these facilities are planned, operated and maintained by the UK FM GROUP (WESTERN) - without any help from the Radio Society of Great Britain. The Group also issues 2 or 3 comprehensive news letters entitled "Talkthrough" per year.

Membership of the Group is voluntary, but in practice most radio amateurs who operate on these bands join - for without their subscriptions there would be no repeaters in this part of the Country! The annual subscription is only £4.00 - and for all the facilities described above that is pretty good value for money by any standard. Many people make an additional donation to the Group and this is of course gratefully received.

WHY NOT JOIN NOW. Make your cheque/PO payable to UK FM GROUP (WESTERN) and send to:-  
 UK. FM. Group (Western)  
 P.O. Box 73  
 CREWE  
 Cheshire  
 CW1 1GB

Your membership card will be posted to you within a few days and you will be included on the "Talkthrough" mailing list.

All communications except memberships should be directed to G3LEQ, 2 Ash Grove, Knutsford Cheshire (0565 4040)

## NOTES FOR THE GUIDANCE OF HOLDERS OF AMATEUR RADIO LICENCE (B) WHEN USING MORSE CODE

Class B licensees are now permitted to use morse code, in any band for which they are licensed, for an experimental one year period. These notes, which have been prepared by the Radio Society of Great Britain in consultation with the Department of Trade and Industry are intended to give some guidance to users of this facility.

You are permitted to use morse so that you can —

- \* practise morse sending and receiving in preparation for the amateur radio morse test.
- \* see its advantages in overcoming language barriers.
- \* gain experience using morse under real operating conditions.

The above clearly involves a large element of self-training.

### GUIDELINES

1. When using morse code, the licence still requires you to identify your transmissions using telephony in the usual way because your morse cannot be guaranteed to be readable.
2. It follows from this that in order to comply with the common accepted principle in the interest of efficient use of the radio spectrum (bandplans), you should not operate in the parts of the bands reserved exclusively for morse operation. This is particularly important in the case of the morse segments of the 144-146 MHz and 430-440 MHz bands, which are in regular use internationally for weak-signal CW operation and experimentation.
3. When using the channelised parts of the bands, on-off keying of an audio tone is recommended (eg A2A, A2B, F2A, F2B).
4. In the multimode segments, any of the common keying methods can be used, eg, on-off keying of the carrier (A1A, A1B), frequency shift keying (F2A, F2B), or keying of modulating tones (A2A, A2B, F2A, F2B).

### GENERAL POINTS

- \* be prepared to spend time listening to experienced operators to become familiar with current operating techniques and procedures.
- \* a recommended way to start is to practise during a normal telephony contact. This is conveniently done using a keyed audio sine wave oscillator the output of which, together with your voice, can be picked up by the transmitter microphone.
- \* remember always to announce your callsign in telephony at the start and end of each transmission.
- \* do not send morse at a speed faster than you can receive it; other operators will usually assume that you can receive at the speed you send.

# Application to be ill

This form must be submitted at least 21 days before the date on which you wish illness to commence.

NAME: ..... CALLSIGN/BRS  
CLOCK/DIVISION No. ....

DEPARTMENT: ..... POSITION HELD: .....

NATURE OF ILLNESS: .....

DATE ON WHICH YOU WISH ILLNESS TO COMMENCE: .....

(Applications to suffer from Pregnancy must be submitted 12 months prior and accompanied by Form No. VS.36/24/9B.)

Consent of Husband/Wife: .....

HAVE YOU EVER APPLIED TO SUFFER FROM THIS ILLNESS BEFORE? .....

IF SO, GIVE DATE: .....

DO YOU WISH ILLNESS TO BE SLIGHT/SEVERE/CRIPPLING/FATAL?: .....

IF ILLNESS IS FATAL DO YOU WISH TO BE CONSIDERED A PERMANENT DISABILITY? .....

(Applicants wishing to suffer a fatal illness should indicate at the foot of this form whether they wish to be represented at the funeral/cremation).

DO YOU WISH TO SUFFER THIS ILLNESS AT HOME/HOSPITAL/COSTA BRAVA/NEWPORT PAGNELL/MILTON KEYNES? .....

DO YOU WISH THIS ILLNESS TO BE OF A CONTAGIOUS NATURE? .....

IF SO, INDICATE APPROXIMATE NUMBER OF PEOPLE YOU WISH TO INFECT? .....

HAVE YOU EVER BEEN REFUSED PERMISSION TO SUFFER FROM AN ILLNESS? .....

IF SO, GIVE DETAILS: .....

DO YOU WISH YOUR WIFE/HUSBAND TO BE INFORMED OF YOUR ILLNESS IF HE/SHE CONTACTS THE COMPANY REGARDING YOUR WHEREABOUTS? .....

I, the undersigned, declare that to the best of my knowledge the answers given above are true and accurate

SIGNED ..... DATE .....

Applicants are reminded that all applications will be considered on merit and that more than three applications per annum will be considered excessive. Under NO CIRCUMSTANCES will any employee be permitted to suffer more than ONE fatal illness.

EXTRACT FROM THE RULES OF IRBY CRICKET CLUB

5. CONDUCT

- (a) Any members who wilfully or by gross negligence damages any property of the Club or any property entrusted to the Club shall be liable to make good such damage at his/her own expense. The question of the damage being or not being accidental shall be decided by the Management Committee from such evidence as they may be able to obtain.
- (b) A member may be expelled by resolution of not less than two-thirds of members present at a Special General Meeting duly convened to consider the conduct of such members. No person whose membership has been so terminated shall be introduced by any other member as a visitor to any part of the Club premises.

6. CLUB PREMISES AND BAR

- (a) Any voting member, or lady member, may introduce a guest to the Club premises. Such guest must sign his/her name in a book kept for this purpose and no guest may be introduced to the premises more than six times in any one year.
- (b) Members or visiting teams and their guests and bona fide members of visiting Clubs may purchase intoxicating liquor for consumption on the Club premises on the day or days on which the visiting team plays on the ground.
- (c) No person under 18 years of age shall be permitted to purchase or consume intoxicating liquor on the Club premises.
- (d) Hours of Opening and Closing the Club Premises

Subject to the right of the Management Committee to open and close the Club premises at it's discretion the Club shall be open as follows:-

Weekdays.....	.....	.....	10.00 a.m. to 11.30 p.m.
Sundays	)		
Christmas Day	)..	.....	10.00 a.m. to 11.00 p.m.
Good Friday	)		

Notice of the hours during which the Club premises will be open will be posted in the Clubroom.

(e) Hours of Opening and Closing the Bar

Subject to the right of the Bar Committee to open and close the bar at it's discretion within the permitted hours the bar shall be open as follows:-

Weekdays.....	.....	.....	11.30 a.m. to 2.00 p.m.
			4.00 p.m. to 10.30 p.m.
Sundays	)..	.....	12.00 p.m. to 2.00 p.m.
Christmas Day	)..	.....	7.00 p.m. to 10.30 p.m.
Good Friday	)		

The Bar Committee may on special occasions arrange for the supply of intoxicating liquor at other times subject to legal requirements

Notice of the hours during which the bar will be open will be posted in the Clubroom.

MICROWAVE MODULES  
RAYCOM ICOM  
MUTEK BNOS  
ALTAI YAESU  
DATONG REPAIRS

Part Exchange  
New and  
Secondhand.

WOOD & DOUGLAS  
CIRKIT  
M.E.T.  
TIGER TONNA  
JAYBEAM

ACCESS

# M G R SERVICES

VISA

*48, Shrewsbury Road, Birkenhead, Wirral.*

FIRE EXTINGUISHERS  
Is your shack  
protected?

051-653 3437.  
CELLCALL  
0860-315938.

TELEPHONE SYSTEMS  
& EXCHANGES  
MARINE RADIO  
CELLPHONES  
INSTALLATION

*Please ring before calling.*

SERVICES

