

NEWSLETTER

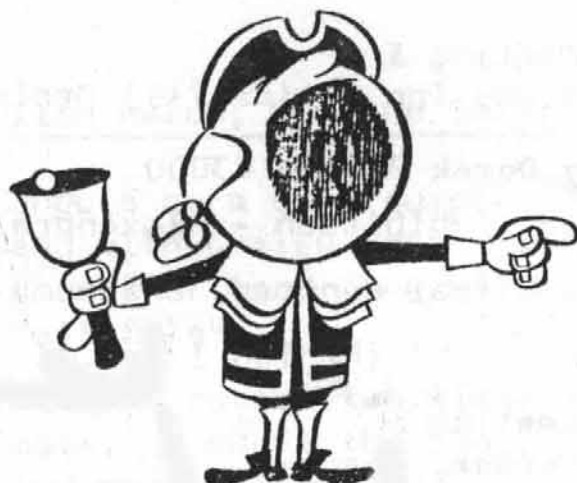
The Committee for 1981 is :-

Chairman	John Fogg	G8 UZZ
Secretary	Ian D. Brooks	G8 PMW
Treasurer	Malcolm McIntosh	ex- G4 IEQ (now GW4 IEQ)
Contest Manager	Graham Stamp	G8 NNS
Committee	G8 NDD      G8 NOY      G8 WOF	

Club meetings are held at 8 p.m. in the Dining Room (adjoining the bar) of the Concourse Sports Centre at West Kirby. Visitors are always welcome at the club. Further details are available from the Hon. Secretary.

Ian D. Brooks,  
28 Paignton Road,  
Wallasey,  
Merseyside,  
L45 6TT

Telephone: 051 639 5666



## FUTURE EVENTS

- |             |  |
|-------------|--|
| 25 February | Radio controlled model racing cars<br>talk/demonstration.    |
| 4 March     | D & W - Hotel Victoria, Heswall                              |
| 7-8         | 144/432 Contest  |
| 11          | Surplus sale   |
| 18          | Committee meeting &<br>D & W - The Parrot, Drury, N.Wales.   |
| 25          | Talk - making home-made wine & beer                          |
| 29          | NRSA Amateur Radio Exhibition, Belle Vue.                    |
| 1 April     | D & W - A lucky number that you can thank<br>your stars for. |
| 8           | Sota Communications Systems Ltd. - Talk/<br>demonstration.   |
| 11          | RSGB National VHF Convention - Sandown<br>Racecourse.        |
| 15          | Committee meeting &<br>D & W - The Green Lodge, Hoylake.     |
| 22          | Low Electronics - talk/demonstration.                        |
| 26          | Drayton Manor Mobile Rally, Tamworth, Staffs.                |
| 29          | D & W - The Lighthouse, Wallasey Village.                    |
| 2-3 May     | 144/432/1296 Contest   |
| 6           | D.F.Hunt Trial   |
| 13          | Talk by the G.P.O Radio Interference Staff.                  |

20 May	Committee Meeting & D & W - Railway Inn (alias 7+1) Meols.
27	Computer by Derek Roger, C3U00
28-30	National A.R. Exhibition - Alexandra Palace
3 June	D & W - The Wirral Hundred, Oxton
10	W.M. Furness G3SMM (Region 1 Rep.)
17	Committee meeting & D & W - Primrose, Liscard.
19	Medieval Banquet, Ruthin Castle.
24	The Visiting Amateur in the USA, by G8MMN
1 July	Barbecue (details in next newsletter)
4-5	VHF NFD
8	Eileen Medley Challenge Cup F. Hunt
15	Committee Meeting & D & W - The Green Lodge, Hoylake
22	D & W - Victoria Hotel, Heswall
29	D & W - Shrewsbury Arms, Chester High Road
5 August	D & W - The Harp, Neston
12	D.F. Winner Revenge D.F. Hunt

### 11th March, Surplus Sale.

Should be a good surplus sale, it's the first one for a while and with G 4IEQ moving to foreign parts no doubt a surprising amount of good junk will surface, as well as some "old faithfuls"

Please provide two lists with anything being brought for sale, as usual the club's treasurer will handle the finances and deduct the club's 10% commission. If you're feeling generous or the items rubbish that you want to disown, then you can donate all the proceeds to the club.

### 6th May. D.F. Hunt Trial

A short D.F. Hunt Trial, a chance to test your gear before the big event on 8th July. All competitors should report to the normal lay-by outside Heswall at 7.45 p.m., the frequency will be S13. Sorry no prizes for this one. D & W venue will be announced at 8.30 for those who are still lost.

### 10th June. W.M. Furness. G3SMM. RSGB Region 1 Rep.

Bill Furness, our regional representative, has agreed to come over from Manchester to give us a talk on the work of the regional representative.

### 8th July. Eileen Medley Challenge Cup D.F. Hunt

The club's main D.F. Hunt, your chance to hold the trophy for the year (rules in next newsletter).

### 12th August. D.F. Winner's Revenge D.F. Hunt.

Fox will be winner of the above, chance to get his own back. (same rules as above).

## WIRRAL RAYNET

Meetings start at 7.30 p.m. in Room G5/6 of North Wirral College of Technology.

Tuesday	10th March	Advanced message handling by G4GGG
Sunday	15th March	Arm chair exercise
Sunday	10th May	Field exercise
Tuesday	12th May	Analysis of exercises
1st June - Wirral Raynet becomes fully operational		

Even if you are not a member, you are welcome to come along to meetings at the college.

Ian D. Brooks  
Wirral Raynet Controller

Wirral Raynet members should find a short newsletter included along with this club newsletter. If yours is missing, please let the secretary know.





### EDITED EXTRACTS FROM CLUB COMMITTEE MINUTES

Points of controversy, information or expenditure recorded in the minutes and not shown elsewhere in this newsletter. The club's books, including the committee minutes are normally available on club nights for inspection by any member.

21st January

Special responsibilities for the ordinary committee members.

G8NOY	agreed to become	Publicity Manager
G8NDD	" " "	Social Secretary
G8WOF	" " "	Belle Vue Organiser

Room at Concourse hired for next 12 months

Secretary reported that Colin (G3RLA) had received a letter from Basil O'Brien, thanking us for the telegram sent to him on his installation as President of the R.S.G.B.

Telegram read :-

"QRZ G2AMV 73 on your appointment hope QRM and QRN are minimal. Wirral and District A.R.C."

## ANNUAL GENERAL MEETING

Membership fees for 1981 set as follows :-

Full Membership : £7. 00. plus extra £1. 00. for spouse

Student's  
Membership : £3. 00.

Senior Citizen  
Membership : £3. 50.

New constitution accepted with only one amendment,  
the quorum for A.G.M.'s and E.G.M.'s was reduced to 20%  
of the membership.

The secretary has a few spare copies of the treasurer's  
and secretary's reports, if anyone wants copies.

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### **DID YOU KNOW THAT...**

Now that we have your attention... so many of you  
have interesting jobs and backgrounds—won't you con-  
sider sharing your experiences, in writing, with the rest of  
the members? Don't forget that if you don't send us the  
stories we will have to make some up!

This is your newsletter, and besides, PMW is running  
out of new material!

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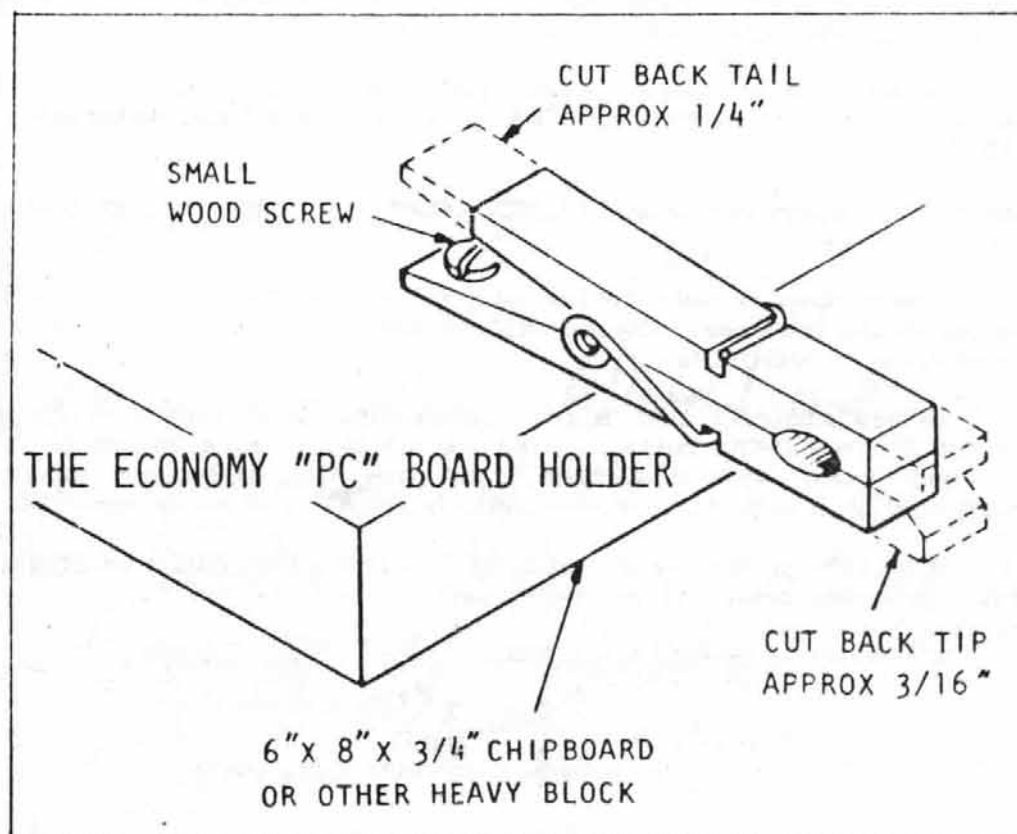
## Membership List

Members please check the information on the enclosed letter: if any of the details are incorrect please amend them and give it to the secretary before 31st March. It is intended to produce an up-dated members' address list, which, as last year, will be distributed individually to all members.

The information is also required by the secretary to ensure that you receive all the latest information.

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Where else could you pick up ideas like this?





# AMSAT-UK

## The Radio Amateur Satellite Organisation of the United Kingdom

Date as postmarked.

All communications to the Hon. Sec:

Ronald J.C. Broadbent G3AAJ  
94 Herongate Road, Wanstead Park  
London E12 5EQ England

Tel: 01-989 6741

Dear Club Secretary,

No doubt you and most of the members of your Club have already heard of the loss of the latest OSCAR Satellite on 23rd May, 1980. The cost to AMSAT was high, some 9 man-years of work, £40,000 in actual cash, £1,000,000 in hardware donated by various well-wishers and AMSAT Groups World-wide. This equipment now lays at the bottom of the Atlantic Ocean off Karcu (Devils Island).

This is an appeal for CASH from your members to assist AMSAT-UK to provide £40,000 inside ten months for the European Building Programme for the next bird to fly. The work-team has already agreed that they will re-build and in fact, have already commenced as of July 6th, 1980. Money however is what is required NOW.

Would you ask your members for a donation towards this project, however small or large. All monies received will be sent without administration charges to AMSAT-DL, Treasurer, as soon as received.

Please send any amount in any form CASH, CHEQUE, P/O's or STAMPS to:  
The Hon. Secretary, AMSAT-UK; G3AAJ, 94 Herongate Road, Wanstead Park, LONDON, E.12 5EQ.

Please mark envelopes AMSAT PROJECT OSCAR and cross cheques "AMSAT-UK". Many thanks.

Please display this letter on your Notice Board and if possible in local Amateur Radio Premises. Copies will be sent on request, together with any other information on AMSAT-UK.

We are mindful that a new launch date is available early in 1982 if we can get the new OSCAR built, tested and to launch site inside of twelve months. If every Radio Amateur in the U.K. gave the equivalent of one packet of cigarettes or a pint of beer, we would have half the money required.

Upon receipt of any donation collectively from Clubs or Societies, we will send a progress report(s) as the spacecraft is being built.

The money is needed NOW. TNX.

G3AAJ

for AMSAT-UK PROJECT OSCAR APPEAL

Quarterly Magazine — OSCAR NEWS

Chairman: Dr. A.C. Gee. G2UK.

Treasurer: N. Crick RS 41667

**WE DON'T  
MEAN TO BUG  
YOU, BUT...**



are you sure that you have paid your membership fee? Please do not overlook this reminder with the excitement of reading your free newsletter, since your membership lapses on 11th March. Either give your money to the treasurer or send a cheque (payable to Wirral & District A.R.C.) to the secretary - address on the front cover.

Receipt from AMSAT for collection held on 28.1.81.  
If anyone wants to give something (however small) please hand it to the secretary for forwarding to AMSAT.

*No 40*

*2 2 . 1981*

*Received from Wirral and D. A.R.C.  
a cheque for the sum of*

*Three Pounds - 51p*

*for Phase III B/C  
with thanks*

*£ 4.51*

**AMSAT - UK**

**R. J. C. BROADBENT, G3AAJ  
94, HERONGATE ROAD,  
WANSTEAD PARK,  
LONDON, E12 5EQ  
ENGLAND**

TERSTON PRODUCT

VHF DX-ing - Sporadic E by J. Branegan GM4IHJ

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VHF DXing. Part I SPORADIC E. by GM4IHJ

Introduction At various times of the year, the very thin upper atmosphere at about 110kms height becomes ionised in patches. These patches of ionised charged particles can bend VHF signals back to earth at points between 1000 and 2500 kms from the transmitters.

When Sporadic E (spE) occurs most frequently in summer, mid-May to late August. There is also a second weaker peak in winter from Christmas to end of January. SpE only occurs very infrequently at other times, with April and October the most likely months with perhaps one or two SpE days each.

Time of Day In summer SpE can occur any time 0600 to 2300 GMT, with strongest signals, highest frequencies, usually peaking at about 1100 and again strongest of all 1700 on summer days. Winter day peaks are 0900 and 1900 GMT.

What Bands 28 Mhz (60), 50 to 60 Mhz TV (140), 70Mhz East Europe FM (40), 90Mhz European FM (20), 144Mhz Amateur (4). Figures in brackets are number of likely SpE days per year in each band.

Event Pattern Signals are usually heard first from stations about 1500kms away on the 50Mhz TV band. They can come up from nothing to S9 in a few seconds. If the event is a big one, 70Mhz signals will soon start to come in and when they get strong, start listening for the next band around 96Mhz. Once you get strong signals at around 96Mhz there is always the possibility (particularly in early January, June or July) that the event will go briefly to 144Mhz. Very few events stay at 144Mhz for long for a particular receiving station - say 20 minutes, but if it fades on 144Mhz do not give up. It can often come back in another burst later. Perhaps once a year an event will linger at 144Mhz for an hour or more but this is very rare. Only extremely rarely does SpE propagate frequencies above 144Mhz. At the end of an event the high frequencies usually fade first.

Double Hop Now and again two separate SpE zones can form about 1500kms apart providing brief communication paths to about 3500kms. This effect can occur 3 times in a year at 50Mhz, but at 144Mhz it is very rare in UK.

Operating High power is not essential. 10 watts is usually adequate. SSB and CW are much better than FM. Main thing to look for is location of SpE cloud which can be very small. Best plan is to listen for European stations on VHF TV and FM. Identify where signals are coming from by language, station announcements, TV captions, or best of all accurate station offset frequencies. If you hear FM from Germany on 96Mhz point your 2m aerial (horizontal preferred) at Germany and listen on 144Mhz around the calling frequencies. If frequency is clear make a short "CQ Es" call. Remember a SpE cloud can drift, so other more favourably placed stations may already be using it. When you hear someone make sure he is calling CQ or answering your CQ. Then KEEP YOUR ANSWER SHORT Eg "I5TDJ this is G80XQ your 55 Zn6la break". Get his confirmation your report, his report and QRA. Then go back "I5TDJ G80XQ QSL QSL break". Now you have officially got a good complete QSO format, and confirmed contact, you can waffle on if you want to, or if he answered your CQ give him "73 clear with I5TDJ G80XQ CQ SpE". Remember time is often short and one SpE contact usually attracts lots of others. If you get QRM'd, try again further from the calling frequency.



If you have no low VHF Rx and cannot steal the family FM Rx, listen direct on 2m around the SSB CW calling frequencies. First you should hear other Gs talking to inaudible Continentals. Find out who and where the Continentals are (call-sign or QRA), point your aerial at them and put out a CQ SpE regularly on a clear frequency near the action. Sooner or later you will hear someone or get a reply to your CQ.

Always remember that what the other chap most needs to hear is your call-sign. He does not want endless CQ CQ CQ CQ CQ etc. or garbled calls. The basic "CQ SpE G80XQ K please" is best then listen for a few seconds. SpE operating is extremely exciting and it is easy to lose yourself and gabble. KEEP COOL. Say or send your call slowly and carefully. Remember, you may know your call fast enough to gabble it, your recipient has not got a clue who you are.

Keep a good log. It is disastrous to forget a QSO in the heat of the moment. You can easily get pile-ups calling you if you are quick off the mark in a SpE event. Write all the call-signs down as they come, enter all reports as they come. If you work, say, 3 or 4 stations from one country (say OK), remember to make your next CQ, CQ UA or SP or HG, the countries adjacent to Czechoslovakia. Under all the OKs there are probably a couple of UAs whose cards will look fine on your wall. A QSL is a QSL even if you only get him RS 11 as long as you get across the vital information.

Last but not least try not to QRM other people's QSOs. Tell RadCom 4-2-70 how you got on, it helps to build up a better picture of what SpE is.

GOOD LUCK.

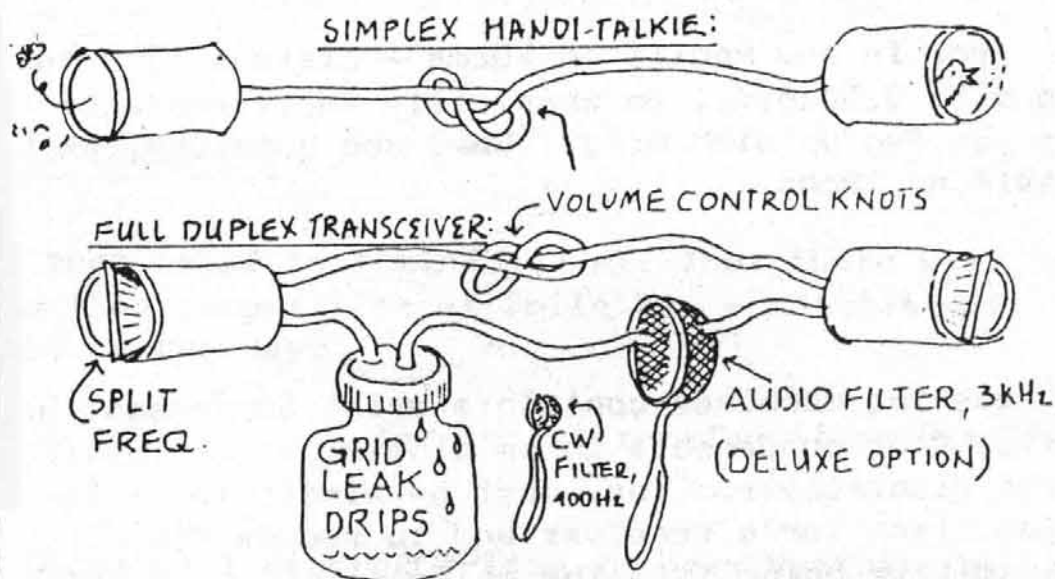
GM4IHJ.

## XTAL EXCHANGE

Bob Williams GBXEX is organising a crystal exchange. If you want to use it pass on to him a list of crystals you want to exchange (frequency, holder if known and rig) along with your call-sign and phone number. On a separate sheet of paper list any wanted crystals (frequency, holder if known and rig), call-sign and phone number.

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Circuit diagram of the equipment at station GBWDF.



N.B. Operator Steve will be doing a simplified circuit diagram for the non-technically minded, which we hope to include in our next issue. (Ed.)

Congratulations to the 15 new amateurs who passed their examinations at North Wirral College of Technology in December.

Rumour has it that the "Godfather" of the Wirral Mafia is trying to fit 2 mikes on to his Cambridge so he can get the odd word in.

Hon.Sec. is now mobile on 70cms - Listens LI 8 to 8.30 a.m. and 5 to 5.30 p.m., on absolutely empty repeater. Are you fed up with M.P.? Come and join GGB, BKF and myself on 70cms.

Old washing machines contain a mains suppressor unit, two coils, four condensers in an aluminium can looking like a large electrolyte. They must be almost ideal to keep the mains clean for a receiver and to reduce the R.F. from a transmitter going into the mains.

#### FOR SALE

TS500 all value H.F. Transceiver 80-10m. Remote V.F.O. Remote P.S.U, Spare Set of Valves. £160.

Brand new S.W.R. Power Meter H.F. to V.H.F. (will work on 2m) £15.00

Trio MC50 Microphone as new. £19.00. Phone Eric G4J2R on 677 0632 about the above.



## MAIL BAG



On the subject of correspondence I am receiving only the barest minimum of material from members for the magazine. Any material will be gratefully received, whether it is serious or just plain humorous. All will be welcomed. Air your views, criticise and praise - it's your magazine and your club.

Last date for summer issue is the end of April.

### N.R.S.A. BELLE VUE

I have been asked to remind you all that there will be a construction competition at Belle Vue - entries will be accepted on the day.

See club notice board for letter received from Gemini Ten.

On 30 December I dropped a line to Joan Heathershaw, our new Zone A representative, and along with wishing her all the best in her new job, I asked what was happening about the proposal that G8's be given 4 metres and also would it be possible for envelopes to be sent to the QSL bureau sub managers, via the bureau along with the QSL cards in order to save on postage.

See over for replies:/.....

LIMITED BY GUARANTEE

# RADIO SOCIETY

## OF GREAT BRITAIN



35 Doughty Street, London WC1N 2AE. Telephone: 01-837 8688. Telex: 25280. Founded 1913. Incorporated 1926.

Ian D. Brooks Esq.,  
Hon. Sec. Wirral & District A.R.C.,  
28 Paignton Road,  
Wallasey,  
Merseyside L45 6TT

DAE/SA

20th January, 1981

Dear Mr. Brooks,

Our brand new Council member, Joan Heathershaw, G4CHH, passed your letter dated 30th December, 1980 to me for reply on 10th January, 1981.

In connection with the 70MHz band this allocation is available only in the UK, Eire and Gibraltar. It is not an international amateur band appearing in the ITU Radio Regulations and for this reason it is doubtful if Article N30 of the radio regulations will be implemented in connection with 70MHz, that is it may not be available to Class B licencees after 1st January, 1982. For the record, perhaps I should say that within the Society we consider present operation by UK amateurs as being on a grace and favour basis. If you look in the licence schedule for a Class A station you will note that this band is only available until further notice.

With regard to your suggestion concerning the QSL Bureau it would seem to have some merit and I am passing the suggestion on to our QSL Bureau Manager, Ted Allen, G3DRN to obtain his reaction.

With best wishes.

Yours sincerely,

David A. Evans, G3OUF  
General Manager



Registered Office: 35 Doughty Street, London WC1N 2AE. Registered No. 216431 (England).  
Patron: HRH The Prince Philip, Duke of Edinburgh, KG Member Society: International Amateur Radio Union



# RADIO SOCIETY OF GREAT BRITAIN

FOUNDED 1913  
INCORPORATED 1926

## MEMBER'S CORRESPONDENCE

26th January 1980

Mr. I.D.Brooks G8PMW,  
28 Paignton Road,  
Wallasey,  
Merseyside L45 6TT

please reply to  
QSL Bureau,  
30 Bednant Gardens,  
London S.W.20 0UD

Dear Mr. Brooks,

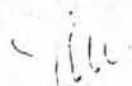
Society Headquarters have asked me to reply to that portion of your letter to Mrs. Heathershaw which referred to the QSL Bureau.

First of all, it is permissible for members to send their stamped addressed envelopes to me, and many have always done so. The only disadvantage is that it can cause delays of up to 4/6 weeks, because I only pass the envelopes on to the Sub-manager when sending the next parcel of cards. If the member had cards on file for some time but no SAEs, this extra delay could be the difference between the cards being delivered and destroyed.

With regard to the lists of Submanagers and the amendments and additions thereto, these are certainly not printed for the benefit of non-members (how would they all see "Radcom"?), but to keep readers up-to-date with the position. All routine enquiries concerning the delivery of cards should be addressed to the Sub-managers, who do of course hold the envelopes and cards until sufficient have accumulated for the postage paid. Unfortunately I do not share your apparent view that everyone knows these details by heart. HI.

Nevertheless please accept our appreciation of your continued interest.

Yours faithfully,

  
E.G. Allen G3DRN  
Manager, RSGB QSL Bureau

cc RSGB

G8 WDC

Applications by club members to use the club call-sign for special events/contests, must be made in writing to the secretary four weeks before the event, stating which of the supervisors will be helping you.

The club's licence differs from your own licences in that while the secretary is the official holder, the call-sign can still be used in his absence (e.g. when he's asleep during contests or down at the pub) provided that one of the following is present :

G4BKF	G8NDD
G4GGB	G8NNS
G8GYO	G8NOY
GW4IEQ	G3RLA
G8MGY	G8TSG

These names and call-signs have been officially recorded at the Home Office as the station supervisors.

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FOR SALE : All below from Louis G4HJU Phone: 653-6369

"COPAL" Digital clock & calendar,  
24 hr. flip over type. £ 9. 00.

PYE "Handy" Cambridge 2 metre with  
P.S.U. 6 channels, MP, S20, 21, 22,  
23 & SØ £50. 00.

Swivel chair £ 3. 00.

"MICRONTA" P.S.U. 1.75A at 13.8 V.D.C. £ 4. 00.

We now have a dolly operator as a member - G6ADO alias  
MMM's Sue.

## FOR SALE

Drawing Board and T.Square, ideal for schoolboy or for designing the new shack or the mast - offers to G8PMW.

Mobile log books - have you got one? price 20p, available from G8PMW, GW4IEQ or G8NNS. All money raised goes to club funds.

Trio QR66 General Coverage Receiver - good condition, cost £120 a year ago - £85. - see G8WOF.

Fishing rods and tackle - one ideal for fly fishing and one for fresh water - Offers to Ian G8PMW.

Trio TS700G Multimode 2m £ 300 o.n.o.

Icom IC255E FM 25 watts synthesised 2m with Scarrier mic  
£ 195 o.n.o. G8GYO  
phone 342-7155

Tiger 100 transmitter. Offers to Steve 625-9696

## WANTED

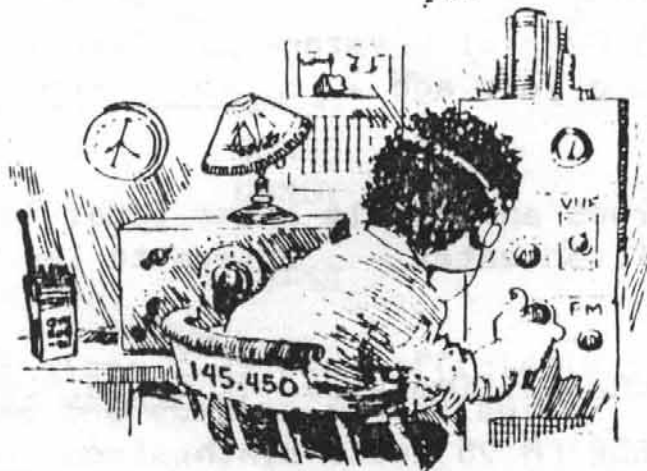
G8PMW is desperately in need of a Stolle rotator.

To borrow QST October 1973 for sight of Page 97 - Graham  
G8NNS phone 639-7698.

# Metroplex

Box 237,  
Leonia, New Jersey 07605.  
201/592-1579

Amateur  
Communications  
Association



## How it started.

The name Metroplex, the philosophy of the Club and the concepts for the repeater system were conceived in January, 1978 by Burt (K2KLN) and Alex (WB2MGB).

The plan was: to establish repeaters on all allocated FCC frequencies utilizing state of the art equipment and technology; to expand the system to include all currently available modes of transmission including FM, SSB, RTTY, and FSTV; to provide a forum on the air as well as at the Club meetings for all radio amateurs; to provide emergency communication services; to avoid competition with any other repeaters, modes, clubs or concepts; to make the system as open as possible; to ask for support only in terms of membership on a voluntary basis to maintain the expanding operations; to create an amateur license teaching series on color videotape for presentation on the TV repeater; and to stimulate activity on relatively unused amateur frequencies by cross-linking repeaters from band to band.



### **The technical side.**

At this time the repeater systems are located in New York City and North Bergen, New Jersey. Additional repeater sites are under construction and will substantially increase the coverage areas.

The 2 meter transmitter and receiver are located in the Washington Heights section of New York City, just south of the George Washington Bridge. The repeater is carrier-access with fully computerized autopatch facilities.

All the Metroplex frequencies have been coordinated by the Tri State Amateur Repeater Council (T-SARC) and authorized by the FCC. Due to the wide area coverage of the 2 meter repeater in New York, New Jersey, Long Island and Connecticut areas, T-SARC has not coordinated a co-channel for these frequencies.

The 2 meter antenna is a four bay, 6.2 db gain, omnidirectional, vertically polarized array. The transmission line is  $\frac{7}{8}$ " nitrogen pressurized Heliax. The antenna is 560 feet above sea level and the ERP is 260 watts.

The Metroplex 10 meter FM repeater operates from dual sites and is heard all over the world. The receiving facility is located in North Bergen, New Jersey. The signals are relayed to New York City where the 10 meter transmitter is located. The antennas are vertically polarized, 560 feet above sea level and produce an ERP of 100 watts. The 10 meter repeater is cross-linked to the 2 meter repeater so that 2 meter operators can take advantage of 10 meter DX conditions.

The Metroplex 440 repeater, located in New York City, is also an open machine but requires 4A or 5Z tone for access. The repeater runs 600 watts ERP utilizing a 10 db gain Phelps Dodge Super Stationmaster antenna fed with nitrogen pressurized  $\frac{7}{8}$ " Heliax transmission line and is located 565 feet above sea level.

All the Metroplex repeaters are set up on an emergency generated power system, stay on 24 hours a day and are equipped with 2:00 minute time-out timers.

### **Metroplex International Ltd.**

To take advantage of the 10 meter and 6 meter long distance repeaters and the 2 meter band openings, Metroplex has members and users throughout the United States and the rest of the world. The dues for Metroplex International are \$7.00 per year and entitle the member to all Club privileges. Metroplex International is available to stations located more than 100 miles from New York City. We are expecting considerable activity in the International Division with the introduction of autopatch and SSB on 10 and 6 meters.