

CHELMSFORD AMATEUR RADIO SOCIETY

NEWSLETTER No.220

June 1984

NEXT MEETING

The construction of equipment is traditionally part of the Amateur Radio hobby, and indeed many great developments have taken place as a result of Amateur experimentation. At this time of the year, every member has the opportunity to show off their projects at the Annual Constructors Competition. Please bring your projects to the next meeting and be prepared to give a short talk about the equipment, its performance, construction, operation etc. There are valuable prizes for the first three winners of £7, £5 and £3. This year we are also introducing a novice prize. This will be awarded to the best entry that does not win first, second or third prize and belongs to a member who has not previously won a prize in the Annual Competition, this prize is £3. There are, therefore, four chances of winning a prize, so don't be shy, bring your entry to the next meeting on June 5th at 7.30pm at the Marconi College, Arbour Lane, Chelmsford. This year we will have the unbiased opinion of two members of the Colchester Club who have been invited to be judges.

MEETINGS FOR YOUR DIARY

July 3rd - "Home Brew" - with plenty of samples !
Aug. 7th - High Power Transmitters by Ron Bradbrook.
Sept 4th - RTTY, Amtor and Packet Radio by Ian Wade G3NRW.
Oct. 2nd - Annual General Meeting.

COMMITTEE MEETING

Wednesday, June 13th at 7.30pm in the bar of the Marconi Residence, Arbour Lane.

REPORT ON LAST MONTHS MEETING - John Donnithorne G8MKX

Dick G3WHR gave us an insight into the world of RF power transistors; he highlighted the advances in technology since his last lecture five years ago. The major changes are the progress of VMOS; in 1979 VMOS transistors were just beginning to appear, now VMOS technology is established and is challenging bipolar transistors. Its advantages are freedom from thermal runaway; high input impedance and ease of paralleling devices. Its disadvantages are that at the moment the power limit at VHF for a single transistor is about 120W and they are more costly than bipolars.

The changes in the bipolar field are semiconductor processing changes which have reduced the size of the base emitter junction thus allowing operation of the device at a higher frequency. The available gains of transistors have increased along with increasing f_T and higher output powers, but their cost has fallen. For high power; above about 300W at VHF and above about 1KW at HF, the valve still reigns supreme. The talk was illustrated with a number of prototype amplifiers which showed the techniques used in power amplifier design.

Our thanks go to Dick for an enjoyable and informative lecture.

NEW MEMBER

The Society extends a welcome to J.Lane who is a SWL.

REPORT ON COACH TRIP TO BIRMINGHAM - Malcolm Nixon G6ADP.

Early in the morning one Saturday last month a gathering of club members boarded a comfortable coach for a trip to the N.E.C. at Birmingham for a visit to the R.S.G.B. annual exhibition. After a shorter journey than previously due to the opening of the new M25, we arrived after about 3 hours travelling. Many felt that the enlarged area used this year made for a better show, nevertheless, there were still large crowds around the stands and it was not until about two o'clock that it thinned out, and it was then possible to have a closer look.

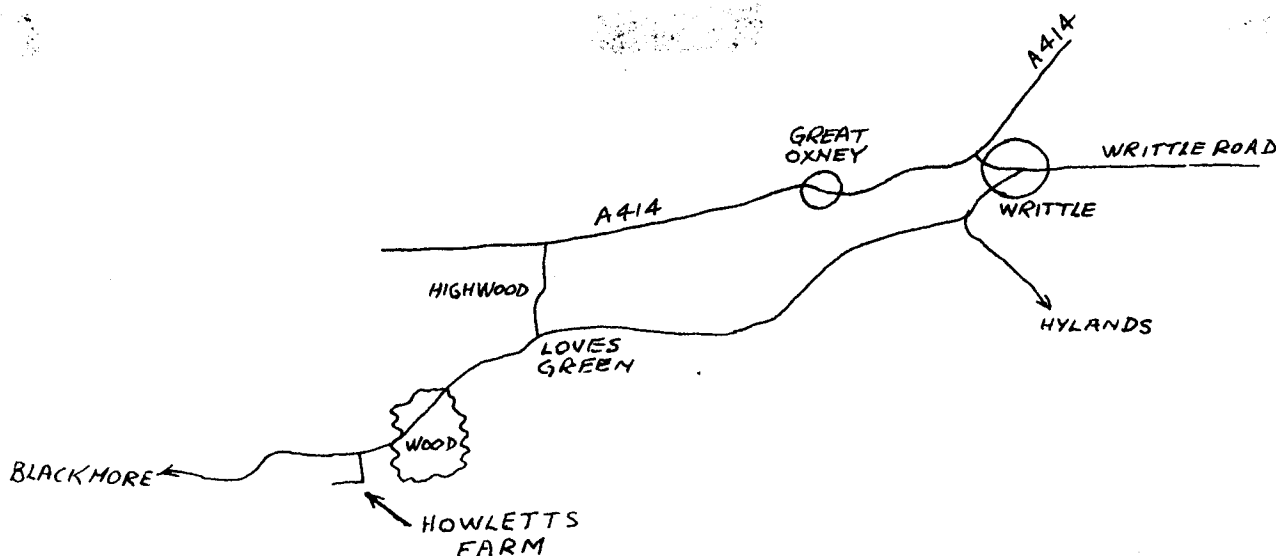
There was the usual mix of big dealers and the smaller traders selling all manner of components and used junk. The R.S.G.B. and affiliated societies were all there and the opportunity was taken to sign in and speak to fellow members on the stands who do stalwart work organising societies and writing the various journals.

Nobody appeared to spend great fortunes on new black boxes but many had bought the odd item or two, as was evident when people returned to the coach for the journey home. This was uneventful, with a welcome stop on the way for an hour or so social event in a conveniently situated wayside pub. With us were some welcome members from neighbouring clubs, who helped fill the coach and helped create the atmosphere for a pleasant day out.

NFD 2-3 JUNE - THATS THIS WEEKEND - Dick Brocks G3WHR

Writing this screed is the final item in my actions list for NFD. Its all arranged - site, tents, rig, WX, etc, except for one thing - and thats YOU. We will be very pleased to see any member or visitor on-site from 10am on Saturday morning to help with setting up the equipment. It takes 6 people to erect the telomast safely and there are many other tasks to suit all abilities. Some educational, like helping to assemble the clubs 3 ele: beam; some physical, like hammering in the earth stake - not too far! - we have to get it out again.

If you wish to operate the station then you must be an RSGB member. We have arranged operators and loggers for the first 15 hours of the contest but have no fixed operating or logging schedule from 9am Sunday morning. So if you can spare the time, COME. As they say about the Olympics - its not the winning, its the taking part. One thing though, leave the linear at home - because the PRESENCE on-site of excess power equipment will result in our disqualification. How to find the site :-



The site is at NGR TL617018 near Blackmore and is by kind permission of the owner. Access is via the Blackmore -Highwood road about 3/4 mile from Blackmore. Turn off the main road at Howletts Hall Farm, go past the farm buildings, turn right at the pond and approx 1/4 mile down the track.

DF NEWS - Dick G3WHR

Our first event was held on Friday 13th April, with Dick G3WHR/P concealed between the A12 and railway, N of Copford. The new team of Arthur G3KPJ and Andrew G4KQE found instant success - just beating the "expert".

Results:

Arthur Butcher	8.16	Pat Cranmer	8.29
Peter Larbalestier	8.16m, 15s	Jeff Herbert	8.30
Mike Hawkins	8.16m, 30s	Ian Butson	8.31
Alan Williams	8.16m, 45s	Frank Pearson	8.42
Andy Haynes	8.25	Roy Emeny	8.44

As was mentioned at our last meeting - Chelmsford has its first representative in the National Final. Any feelings of superiority were firmly squashed when at the next Colchester event, those who had found fame at Oxford came next-to-last, last, and one failed to find the station !

For our May event, Mike Hawkins G3WMM/P was well hidden in a wood near Fordham Heath. Camouflage and cunning kept the expert away until 8.30 - then what a pile up. Results:

Peter Larbalestier	8.30	Frank Pearson	8.37
Ian Butson	8.32	Paul Clark	8.37m, 30s
Dick Brocks	8.33	Pat Cranmer	8.38
Andy Haynes	8.34	Alan Williams	8.38m, 30s
Roy Emeny	8.35		

Future events :- N.B. changed date for Dartford Heath

- 1 June Colchester - start Fordham Heath 7.30pm
- 15 June Chelmsford - start Tiptree Heath 7.30pm
- 10 June Dartford Heath - See May Rad.Com.

THE ALBATROSS CONTEST GROUP PERSEIDS METEOR SHOWER EXPD.1983 - Paul G4PVM.
We set off on August 7th for our third expedition, the previous ones being GM3OUL/P (X028h) and G3OUL/P (XJ05h). Having used the site before we were able to get set up very quickly on a site on a cliff top within sight of Goonhilly Downs satellite earth station. The main party of 8 people arrived and set up the tents leaving the radio gear until the next day when the generator was due to arrive. Here was the first problem - a 320V generator. After 4 years of contests using hired generators we were easily capable of fixing this - even in a field in the middle of nowhere. The two 144MHz tx were soon set up in time to work a few Gs before the first sked starting at midnight on the 8th. The main station consisted of a FT221 + 3SK97,7213 PA and 8 x 9 ele yagis at 21 feet with a standby 4CX350A amplifier. The yagis were beaming slightly south of east across F,OE,OK,HA and YO to UA6YAF our most distant sked. The second station (using synchronised tx-rx periods) was a FT221 + 3SK97,3CX1500 PA, with 2x16 ele yagis at 25 feet with a reserve 2x4CX250B amplifier. The calls used were GB4ULX and G4NFD/P as our chosen call G4ULX had not been issued at that time.

In all 63 2m MS QSOs were completed, 13 incomplete QSOs and 16 nil returns. Best dx was YU1EU in KE square with 7 QSOs over distances greater than 1700Km. In between skeds, when not QRV on the MS random calling channel, we worked a few stations via tropo to bring our squares total to 83 in seven days operation. Conditions were quite flat most of the time, the only redeeming feature was the sea path to PA/ON. For the second year running nothing was heard from Spain.

432Mhz was activated using a FT101,SOTA transverter (1.5dB NF), 2x4CX250B PA and 4x21 ele yagis at 15 feet. To say the band was quiet is an understatement. We could call CQ on the calling frequency for hours at a time with no reply. (No equipment faults - we got 59 from the few people who were QRV). Were it not for the many well equipped French stations - is 70cms worth the effort for 84? The highpoint of the expedition for me was a 70cms QSO with DK1PZ (EL59g) on MS. Very few 432MHz QSOs have taken place so when Heinz suggested it, after initial surprise, I agreed. Heinz is QRV 2m/70cms eme and we had worked previously on MS from YN,ZN,XO (twice) and XJ (in 1982) on 2m. Paul G4NFD operated for the first sked on Aug 11th but copied nothing although some string bursts were heard in Staufenburg which Heinz played for us on the 14MHz "VHF" net. Another sked was arranged via DL7YS for the following day with tx periods synchronised with the 2m stations. Reflections were few and far between, even at the shower's peak. Nothing heard in the first two hours then a burst which was almost inaudibly weak, especially when the signal was slowed to 30wpm. We started sending a 26 report but it took 66 minutes to decode our burst - both call signs and a report so we amended our transmission to send "Roger 26" after 3 hours 6 minutes - 54 minutes to go. Only 30 minutes later a 2 second burst came out of the noise - both call signs and a "Roger report". Only "final Rogers" to go - forget the midnight deadline. The 2m station was now on 1 minute periods for an SSB sked so we lost a lot of receiving time but we carried on sending until 0230. Was the QSO complete? 20m wasn't open to DK so we had to wait until morning for a confirmation that the QSO had been completed just after midnight. A distance of 1050Km only just short of the IARU Region 1 record.

Plans for the 1984 expedition are in hand - UL and VL, again for the Perseids. This time we plan a bit more tropo operation - full details a bit nearer the time. We will also be QRV in all RSGB VHF contests as GW4ULX/P from YL15c - Operators G8KWX, GM8QFV, G4NFD, G4QPC, G8KQP, G4NOY, GW4LXO, GW6UTP and G4PVM.

OTHER NEWS

The nomination of Les Turner G4CUT for the Regional Representative has been submitted to the RSGB, the supplement to the latest RAD COM includes the ballot voting form, if members would like to complete this and bring it along to the next meeting we will submit them en-bloc to the RSGB.

The jackpot raffle prize of a Call Book was purchased at the Birmingham Exhibition and duly presented to John Bowen G8DET at the last meeting.

Members who came to last months meeting would have seen our new notice board. This was obtained by Roy G3PMX at very low cost to the Club. Several notices and letters were put on the board, and with the superb club name that Roy produced on his computer, the notice board made quite an impact on the club room. All members are welcome to pin any literature, adverts etc., on the board.

Our congratulations to Dick G3WHR for qualifying for the National DF final at the first qualifying event at Oxford recently. Dick came second at the event, beating another twenty or so teams competing. Chelmsford was well represented at the event, having four teams taking part.

HERE AND THERE - E1a G6HKM

Producing the newsletter this month has been rather like a Chinese puzzle 13 sheets of paper in assorted sizes, even written on the back of a strip of 5 raffle tickets and in all types of handwriting. I hope I've got it all complete, words typed so far total 2115.

Roy and I have been on holiday for a few days touring Northumberland and over the border into GM land, the WX was very good and we had a couple of days working portable in ZP square, we found ourselves a good site on the moors, Catteran Hill 876' ASL, plenty of sheep but only about 1 car an hour, the only thing to disturb the peace was the Starfighter jets darting through the valleys and skimming the hill tops, our equipment was TR9130, 25W on SSB and a 9 ele Tonna on a 20' mast, in 4 sections. We were able to get the whole antenna system up and working in about 12 minutes, Roy erecting the mast and guywires etc., and myself assembling the antenna. It was strange to hear the Angus beacon 59++ and the Wrotham beacon just audible, we had a good number of QSOs into Scotland, working as far as ZR square and getting south into Yorkshire. We had 3 friendly locals Oliver G3BRA, Brian G1FFF and Bill G1AWP who called us from time to time to see how we were doing. It was ironical that we should be working in ZP square as although I had worked 106 squares I had not worked ZP, however this has now been rectified and a chance CQ call to the North on Wed.23rd May brought a reply of "is that you E1a, this is Bill G1AWP" so now the score is 107 of which 91 have been confirmed. We had hoped to work back into Essex to Paul G3YDY and Les G4CUT, but conditions were just not good enough. However, we now have a good portable set up and hope to do more in the future on 2m and 70cm.

ADDRESS LABELS - Roy G3PMX

You may have noticed that since your newsletter went 'computerised' the envelopes use pre-addressed self adhesive labels. So far we have used a sample batch which has been very successful and saved many hours of labourious handwriting, however, the society must now make the investment of a stock for future use. Unfortunately the minimum quantity we can purchase at an economical price is 12000 labels.

As our rate of use is 1000 per annum a surplus will result, therefore, we are considering making this surplus available to anyone associated with the society (including other clubs) who would like to take advantage of the bulk purchase price of £5 per 1000.

In case you have already thrown away your envelope, the size of the label is 2.75 x 1.5 inches, they are mounted on A4 size fanfold sheets, 3 labels across by 8 down, track feed, 9.5 inches wide.

The surplus of labels, approx 8000, will be discussed at the next meeting, so we need to know very soon how many would like to take advantage of this offer. It is proposed to sell these in minimum lots of 500 (504) labels.

73,
Andrew.

Witham 512316 (Day)
Silver End 83094 (any other time)

9, Abraham Drive,
Silver End, Witham.

FOR SALE.

Eddystone EC10 general coverage receiver, mains power supply, battery box and circuit diagram. Needs re-aligning. £25. Brian G3CVI Chelmsford 71919.

FOR SALE.

45 Amp-hour 12V battery, less than a year old, nothing wrong with it (reason for sale - upgraded to 60Ah) Offers over £20. John G6JPG, not QTHR, Chel (0245) 73331 ext: 3136. (Room B259 Baddow).