

CHELMSFORD AMATEUR RADIO SOCIETY

NEWSLETTER No.245

July 1986

NEXT MEETING - ELECTRICITY GENERATION AND DISTRIBUTION

This month our guest speaker will be Mr N. D. Stapleton who is a senior engineer with the South Eastern Regional Headquarters of the C.E.G.B.

Nigel Stapleton has worked in both conventional and nuclear power stations, and has since had experience in planning and management information systems. The illustrated talk will cover the generation and distribution of electricity.

We look forward to an interesting evening, beginning at 7.30pm on Tuesday 1st July at the Marconi College, Arbour Lane Chelmsford.

DATES FOR YOUR DIARY

- 1 July - Electricity Generation and Distribution.
- 12 July - Special Event Station, GB4NSC, North Springfield.
- 20 July - Anglian Mobile Rally, Colchester.
- 5 August - Sunspot Cycle Number 21.

SPECIAL EVENT STATION GB4NSC - Gwyn G4FKH

'N.S.C.' stands for North Springfield Community Association, who in common with many neighbourhood groups organise an annual fete. As part of this event our Society have been invited to erect an Amateur Radio Station at Nabbotts Farm School on Saturday 12th July.

The invitation was originated by Eric McPherson, G4WMT with the idea of attracting the public's attention to a working Amateur Radio station and a display of QSL cards to form a competition, with prizes, for guessing which part of the world they originated.

At the moment it looks like four stations will be operating, HF/CW, HF/SSB, VHF and UHF. Equipment for HF has been kindly offered by Arrow Electronics, which will be accepted. All members are invited along to help with setting up and operating the rigs.

An announcement will be made at the July meeting to advise all of the times involved. Enquiries about the event should be channelled through Gwyn G4FKH.

LAST MEETING - CONSTRUCTORS COMPETITION - Dick G3WHR

Last month we were pleased to welcome two guest judges from Braintree, John Saunders, G3QLU and David Penny, G3PEN.

There were seven competitors, and each gave a short talk about their entry.

Brian G0BDS led off with a Microphone, Amplifier and Operating Switch for mobile operation. All three items were designed to improve the safety aspect of mobile communication.

Andrew G4KQE presented a Crystal Marker Oscillator. This single transistor design produced 1MHz and 100KHz signals which were used to set the frequency of a DF receiver.

Ela G6HKM showed her computer program for QSL cards. This Dragon based system produces stick-on labels for use with ordinary printed cards. Ela demonstrated how the menu driven system prompted the user for information and printed the label.

Martin G4T00 is now on 6m, using a 10m Transverter and Linear Amplifier. After describing the construction methods, Martin mentioned some design problems and how they had been overcome. This had required a new input transformer and some rebiassing for a substitute PA transistor.

Dave G8UU0 operates 2m and 70cm simultaneously by using a duplexer to drive one aerial. This Ham Radio Magazine design used 4 band pass circuits to combine the signals at the output with 50dB isolation between inputs.

Paul G0BTH told us of the various fates that had befallen his Mk I, II and III DF receivers. However, experience gained from building and operating these sets had produced the Mk IV design which used the homodyne principle. Paul described the circuit and detailed some critical areas.

Simon G6ZKG showed us how a Wood and Douglas design 2m 25W Linear should be constructed, and gave details of its performance.

Dick G3WHR described how parts of a TV Tx, PCM link, computer, and various junk sale items had been recycled into a Bench PSU with twin 30V, 2A current limited outputs.

Andrew finished off the competition by demonstrating a model train controller which had regulator and brake controls, just like the real thing.

The Judges were very dilligent in examining all the entries, with additional questions where necessary, before giving us the results together with some 'constructive' comments.

Finally, they awarded the prizes:-

1st	Martin	G4T00	£7
2nd	Paul	G0BTH	£5
3rd	Dick	G3WHR	£3
Novice	Ela	G6HKM	£3

Many thanks to John and David for their hard work and well-done to all who entered.

ANGLIAN MOBILE RALLY

Please note new venue. This year the Anglian Mobile Rally will be held on the 20th July at HIGHWOODS SPORTS CENTRE, BRINKLEY LANE HIGHWOODS, COLCHESTER.

The Rally will start at 10.00am (but doors will be open for traders from 08.00am) and will go on until about 06.00pm.

COMMITTEE MEETING

The July Committee Meeting will be held in the Marconi College Residence at 7:30pm on Wednesday, 9th July. You are most welcome to join us.

HF NATIONAL FIELD DAY, 7-8 June - Dick G3WHR

Our alarm clocks sounded an hour earlier this year, owing to the RSGB having agreed to an earlier start time of 1500GMT. By 9.20am when I arrived on-site at Howletts Hall farm, both tents were up and a start had been made on the telomast. A large clump of nettles had to be flattened before the stakes could be positioned, next year we'll take a scythe. The beam was assembled and mounted on the rotator, before they were fastened to the mast. Then all hands were required to raise the beam to 40ft. It takes 8 people to erect the mast safely, three of them to do the lifting!

Arthur's bow and modified arrow provided cords over the nearby trees to raise the wire aerials to a good height.

By now it was lunchtime, with plenty of provisions; sausage rolls, cakes, flapjacks, and raisin buns.

Afterwards it was time for the top band aerial. This turned out to be a spectacular single span of over 600ft, which took two people to tension the support cable.

We had hoped to try a new 80m aerial this year, but a vital length of feeder was delayed in the post; so the old dipole went up again.

A blend of teamwork, ingenuity, and brawn ensured that the station was ready to be tested with an hour to spare. There was a minor problem when the generator burnt out one of the lightbulbs, but we adjusted the volts and fitted the spare bulb.

It being near 4pm I entered the NAFFI tent and found one raisin bun left, which I ate. This action did not go un-noticed, "the chairman had eaten the LAST raisin bun!"

We had a new callsign this year, Peter G4DAN having moved away from Chelmsford, Les had kindly agreed to let us use G4CUT/P for 24 hours.

We began the contest on 40m but quickly switched to 10m when European /P stations were heard on the search receiver. After a good spell on 10m we changed to 15m then 20m as the sun's angle declined.

One QSO was lost when the generator was being fueled, it didn't like being filled up and nearly stopped. It was much later the following day before we found a solution to the problem. The engine air filter was right above the fuel tank and sucked in a very rich mixture during filling; this could be prevented by fanning fresh air towards the filter.

Illness and an earlier injury robbed us of an operator and a logger, which required some adjustment of operating/logging schedules. However, the remaining team coped very well. We have our key personnel, but the logger is just as important to the operating team otherwise duplicate contacts occur.

It was cold overnight but the WX stayed dry. My session on the key began at 2.45am with Brian G0BDS logging. My practise with the club morse tutor paid off because I could read the 30wpm morse OK. Sending was a little slower though, and it was a bit embarrassing to hear some operators slow down to my 20wpm and then speed-up again when the QSO was over. My 3 hour session passed all too quickly, dawn had come and Gwyn was tapping my shoulder, time to change over. Outside the operating tent it seemed that the whole world was sending morse code; birds chirped 599, tents flapped CQ, even my electric razor sent G4CUT/P. Imagination? no in the last case it was true - the generator voltage regulation was none too good!

Unfortunately the return of the sun did not produce a second opening on 10m as happened last year. Daytime operation was on 40m and 20m.

About 11am we had a visit from Ilford, who had come to do an official RSGB inspection. We were deemed to be operating within the rules, so it was all smiles and we gave them refreshments.

We were pleased to welcome several visitors to the site, some of whom were pressed into service - they didn't seem to mind. At the end of the contest we had sent serial No. 512 which was 20 more than 1985. Congratulations all round, we finished off the food, had a final cup of coffee - then we set to work dismantling everything. As usual, it didn't take long before the site was cleared.

When the logs had been checked for duplicates and mistakes the final claimed score was 504 QSOs and 2278 Points. The logs have been submitted to the RSGB HF Contests committee, so now we wait for the October Radcom.

Finally my thanks to all those who turned up on-site, and to those who couldn't but gave us their support in other ways - some of them quite delicious.

DF NEWS

No reports this month, just a reminder of some dates for your diary:-

4th July, COLCHESTER. 13th July, RSGB (South Manchester). 18th July, CHELMSFORD.

LETTERS TO THE EDITOR

Further to last month's reminder that there is usually room to spare in the newsletter for members news items, articles, advertisements, etc.....I would also like to receive letters from members to publish in our columns. Any views that you have on subjects relating to club activities or Amateur Radio in general will be welcome, even controversial subjects worthy of reply from other members will be considered!

The dateline is usually the third Wednesday of each month.

73 from Roy & Ela, G3PMX & G6HKM
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