Chelmsford Amateur Radio Society

Club Station
Call Sign
GOMWT

Issue Number 326 March 1993

NEXT MEETING - The History of Radar

For our March meeting we welcome the return of our good friend Stan Wood to provide another talk in his series on the history of radio communication and radio related subjects.

Stan will continue the story of the evolution of Radar with "Some thoughts on the Battle of Britain", the talk will be illustrated with slides and some examples of the valves used in the sets during that conflict, including devices used in "Other peoples Radar"

The meeting will open at 7.30pm on Tuesday 2nd March in the Marconi College, Arbour Lane, Chelmsford.

DATES FOR YOUR DIARY

27 Feb. RAINHAM RADIO RALLY - Gillingham, Kent.
2 Mar. CLUB MEETING - History of Radar - Stan Wood.
9 Mar. FIELD DAY PLANNING MEETING - at QTH G0GJS.
6 Mar. VHF CONVENTION - Sandown Park, Surrey.
13/14 Mar. LONDON AR&C SHOW - Picketts Lock Centre.
6 Apr. CLUB MEETING - The Essex Water Company.

LAST MONTHS MEETING - Harry, G2HPF

We were very pleased to have a talk and working demonstration of Packet Radio by John, G6JPG. He began by giving a brief description of what Packet is and what the bits of information in a packet frame consist of, and some of the other things that go on inside the little black box called a TNC.

He then went on to tell us what the computer driving the TNC had to do to drive it, in the simplest case just behaving like a dumb terminal. How to connect, talk and disconnect from another station. How to connect via an intermediary station acting as a Digi-peater. How to send messages to distant stations by using the local Mailbox, which is specially licensed to pass these messages and will have a GB callsign in England.

These Mailboxes can accept messages for destinations all over the world, and long distance hops are made via HF links. The preamble to the received message contains all the details of the routing of that message, maybe containing twenty callsigns in ten different countries. Hence the fact that long delays occur in some cases, maybe weeks.

John then went on to talk about the use of private Mailboxes, where if you leave your equipment running unattended (quite legally), a friend can leave you a message in your absence, or pick up a message from you if you have put one in for him to collect.

There is very little real time operating, and you do not stand much of a chance in getting an answer to a CQ call.

John then went on to put theory to practise and gave an example of a Packet contact and called up G0IPU and established contact, but the station did not reply because Chris was sitting in the audience!

Then he connected to GB7ESX, our local BBS in Witham to see if there were any messages for the CARS from the Backnang group in Germany. There was nothing for us so John sent a message to them and it will be interesting to see how long before it gets there. At first the messages were passed very quickly, but then things slowed up a bit, which was really a very good demonstration of what happens in real life when the operating frequency is used by many other stations.

At the end of the demonstration a vote of thanks was proposed by Geoff G3EDM. Thanks also to Roy and Charles for putting up the 2M antenna on the roof for the live demo.

P.S. If Roy had packet going I could have sent this write up via a 2M link !!

THE CLUB LIBRARY

Our librarian Geoff, G7KLV reports that business has been brisk lately and as a result the modest charges for borrowing books has accumulated to the point where he can consider adding some up-to-date publications to the present stock.

The first addition will be "The Radio Amateur's Guide to EMC" and the committee have given their approval to make a loan from club funds for immediate purchase of other books when the library budget can forecast to repay, on the basis that we need to speculate to accumulate.

We hope that members will recognise the advantages of enhancing the library and give their support by borrowing as many books as they can afford.

PLANNING FOR 1993 FIELD DAY

A meeting will be held at the QTH of Charles G0GJS at 8.00pm on Tuesday 9th March to plan strategy for this years event.

If you are able to attend, please give Charles a call on (0245)256654 to reserve a chair and for directions.

COMMITTEE MEETING

The March Committee meeting will be held in the Telford Lodge at 7.45pm on Wednesday 10th March, you are welcome to join us.

MEMBERS NEWS - Ela, G6HKM.

The Society welcomes three new members this month, they are Angus Ellefsen G3FJO, John Peters G3VMJ and Andrew Chapman a SWL.

Congratulations to Stan Dodd (ex G7KJN) on passing the CW, Stan's new call is G0SXK.

NEW PREFIXES FOR YU AND OK - Ela, G6HKM.

Are you as confused as I am over the new prefixes? I have done some research to try and clarify the situation and thought the information could be useful to others.

Former Yugoslavia

YU2 - 9A Croatia
YU3 - S5 Slovenia
YU4 - 4N4 Bosnia-Hercegovina
YU5 - 4N5 Macedonia

Regarding YU1 Serbia, YU6 Montenegro, YU7 Vojvodina and YU8 Kosovo these were to be discussed by the DXCC committee in Jan. 1993, new country status will NOT be officially granted until after this time.

Former Czechoslovakia

States of Bohemia and Moravia will continue to use OK1 and OK2 but Slovakia will use OM3 (previously OK3).

N.B. It would appear that not all the above have been accepted for DXCC yet, for those that have, there are specific starting dates.

RSGB INTERNATIONAL HF & IOTA CONVENTION

The final part of the report by Charles, G0GJS.

C.A.R.S. are most grateful to Charles for compiling this report and I recommend that we read and digest this page to inspire our effort towards planning for Field Day. *Ed.*

The main challenge was to get everyone motivated and involved and this year 40 members of the Club took part. They had a "Vision" (they were going to win), a strategy and they made very detailed plans - certainly the recent completion of a 4 year university management course by a leading member was put to good effect. They took very careful note of the rules and on their own admission bent them (without breaking) to their maximum advantage. They noted that, double points applied for 10 and 160m, double points for /Ps, not a multiplier contest, what equipment and antennas were allowed. They took into account that it would be mid-summer and with sunset at 2030z and sunrise at 0345z there would not be long propagation openings for 160 and 80m. They took into consideration that sporadic E was likely and the good possibility of contacts with W and VE on 10m.

Technology considerations included the need for frequent band changes, the requirement to track the stations that had been worked by which operator and on what band, to achieve the best signal within the rules, to provide secure uninterruptible power supplies and to maximise operator comfort and convenience. The thought that "the second placed competitor is only a few QSOs behind!!" provided great motivation.

Building the team was of course a high priority for Reading. They had an 'A' team and a support 'B' team which was situated on the same site and within walking distance. The 'A' Team philosophy was - 'go for gold',best equipment, best expertise. 'B' team guidelines were - best equipment also, training ground for new licensees, restricted section, adjacent site logistics and they had to 'give way' to 'A' station in the contest (the 'B' team achieved around 550 QSOs). 'A' team also had a Transport Manager, Station Manager, a Sky Hooks expert and good operators. The best equipment for the 'A' team included the Yaesu FT1000(circa £3k) which in addition to every conceivable "bell and whistle" has two receiver front ends, IF strips and VFOs which allows the simultaneous reception and display of two different frequencies and the audio outputs can be monitored mixed or split between each ear with headphones or external stereo amp. Ideal, of course for checking propagation conditions on the other bands without having to change the operating band! As the rules stand NFD participants are allowed only one receiver and one transmitter or one transceiver, but the FT1000 is sold as a transceiver..... Perhaps we can 'strap on' a receiver to our FT747 for the next NFD?

For antennas Reading 'A' team used a 60' Versa tower, cranked up through the courtesy of enthusiastic young novices (who also put up the tents), which supported a TH5 array for 20/15/10m. Dipoles were used for other bands with two antennas per single band to achieve contacts with stations "on the side". On 40m, cubical quads were also employed, two separate installations covering different sectors each with a radiator and director. A single cable from the FT1000 connected to an auto antenna selector switch. The FT1000 has band change data and as it was connected to the computer and the contest logging programme, it changed the computer 'banding' as well. The operator`s iambic paddle output impulses were immediately converted to a callsign input to the computer which could then with a keystroke modulate the transmitter with the RST and serial number! The aerial farm occupied a big area, but the new site was justified by a large number of QSOs being achieved into W and VE on 10m via double-hop sporadic E under conditions when no other station could work such contacts. It is interesting to note that on this aspect of 10m operation; Reading scored 1926 points against CARS 1116 and we knew at the time that we were scoring well on this band. Reading said they made "hundreds of band changes", undoubtedly the second receiver facility was of vital operational importance to the decisions.

John, G3WGV who incidentally is the originator and purveyor of the Turbolog computer software said that his programme had an automatic dupe check facility. Furthermore, in the substantial number of advantages that he listed for computer logging he made the point that as no transcription was involved there was less risk of errors compared with manual logging. Each operator worked four hour shifts and operated his own computer logging and station operation; he was left to his own devices although supported by the necessary comforts.

The software also produced rate meter outputs so that at any time operators could tell if they were maintaining the required number of QSOs. I gathered that there were 2/3 operators involved in total. The judgment required to decide whether to continue to "burn a hole" or go hunting for QSOs was an important factor - no doubt the second receiver could play a most helpful role. John said that they had the facility to record the whole of the contest but did not do so.

Reading placed great emphasis on training and preparation. They were of the opinion that 75% of the required effort in winning NFD was expended prior to going on the air. On training 60/70% went on learning how to use the computer as there was a huge capacity for getting it wrong. They used laptops because of their freedom from creating RFI (CMOS components have a much tighter rating) which fact is endorsed by the liberal attitude that airlines have towards allowing passengers to use them on board aircraft. On the downside they are another item to go wrong.

John described the events on the day including the last minute rush. He talked of the ability to obtain realtime feedback by monitoring serial numbers to determine how the competition was performing. Feedback about propagation was very important and the need to change plans "on the fly" meant flexibility. Internal competition between their operators on running rates was encouraged. The requirement for a station inspection by the RSGB was also kept in mind.

After it was all over came the post mortem (dismantling and packing up was not mentioned!), the generation of the logs and the planning for next year. The conclusions that Reading and District Radio Club reached and the advice they passed on relating to their successes were:-

i) have the vision
ii) plan beforehand
iii) make the most of your support
iv) get the best equipment and antennas
vi) be ruthless about the selection of operators
vii) learn from experience
viii) watch out for G3ULT/P again next year!

As the session closed and the RSGB president presented the last magnificent HF trophy - one of 36 - I went upstairs to the HF Competition Committee room to check the 1992 NFD results list. CARS were listed in 16th position out of 39 entries. We had moved up four places since 1991 and six from 1990. Furthermore, we had gained some 20% more points than in those two previous years. A very big thank you to our support team, especially those newer members who turned out to ensure such a fine result. G0MWT/P has every potential and incentive to further improve whereas G3ULT/P are in a rather precarious position!!

The Beaumont HF and IOTA Conference showed me how flourishing and vigorous is the state of our hobby. The enthusiasm of all the good people that we met was only matched by their competitive spirit - amateur radio can only go from strength to strength! The 1993 Conference will be held at the same venue and if you have the opportunity to attend do go along.

JACKPOT RAFFLE

Twice a year we have a free draw; the next will be at the April Meeting when the prize will be a Digital Clock.

For the benefit of new members, the "Jackpot" draw tickets accumulate from an extra one reserved for every five purchased at the monthly meetings. Please support the raffles which help to keep the club funds solvent!

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73 from Roy & Ela Martyr, G3PMX & G6HKM

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MEMBERS ADVERTISEMENT

FOR SALE (Collectors Items)

"HRO-MX" H.F. Receiver with Power Supply. £10.

"KW-VICEROY" H.F. Transmitter. £15.

Brian, G0BDS, Tel:(0245)74892