

# CHELMSFORD AMATEUR RADIO SOCIETY

NEWSLETTER No. 252

January 1987

## NEXT MEETING - The Annual Film and Video Show.

We start the new year in traditional style with some 'Movies' for your entertainment.

Dick G3WHR is putting the finishing touches to his film - NFD 1986 - another epic, shot in the outback of Blackmore, recalling the endeavours of the Field Day Team in their search for Solar Cycle 22.

Les G4CUT has again kindly offered the loan of his Video Equipment to show a cassette from Marconi Radar entitled 'The Innovators', two from the RSGB collection and a cartoon to round off the evening. The show begins at 7.30pm on Tuesday 6th January at the Marconi College, Arbour Lane, Chelmsford.

## DATES FOR YOUR DIARY

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|------------|---|
| 6 January  | - Film/Video Show.                            |
| 17 January | - Club Social - Springfield Mill, Chelmsford. |
| 18 January | - SNOWMAN D.F. Event                          |
| 3 February | - Rig testing session - Steve Dakman, G8MRO.  |
| 3 March    | - Kite Antennas - Tony Gilbey, G4YTG.         |
| 7 April    | - Short Waves and Beams - Mr J.S. Woods.      |

## LAST MEETING - Phil G0ELM.

This featured an illustrated talk and film show about the history and development of Radar given by Mr Bruce Neale of Marconi Radar Systems Limited.

The first attempts to demonstrate the principle of radar were carried out and published by Tesla (1900) and Hulsmeyer (1904), however, the technology was not available at that time. An acoustic radar system was set up at Rodney Marsh and this consisted of a large acoustic mirror made out of concrete. This gave crude bearing information but no range data, it was claimed that it was possible to hear an aeroplane at 18 miles!!

A committee was appointed to calculate the amount of R.F. energy necessary to raise the temperature of 8 pints of water by 10°F at a range of 5km, this proved to be an enormous amount and was not possible. However, it was possible to measure the reflected energy, this was demonstrated by Watson-Watt in 1935 using the large SW station at Daventry, a Hayford bomber and a pair of dipoles. He found that he could detect the reflections of the signals from the bomber up to a range of 8 Miles. This led to the foundation of the Bawdsey Research Station where the Chain Home radar system was developed. This system worked with separate Tx and Rx aerials, transmitting at 30Mc/s with a power of 300kW. Stations were placed every 20 miles along the coast and by March 1945 there were 190 systems in operation. The only remaining 360 foot tower can be seen at Marconi Research Centre, Great Baddow.

Research was quickly underway and this led to various radar systems, 'Oboe' which had a resolution of 17 yards at 300 miles and a portable system 'Wigwam' which had a range of 30 miles.

Meanwhile, the Germans were also developing radar systems, mainly in the 500Mc/s band, the standard of engineering in these systems was much better than the British.

The talk was concluded by a film, covering all the aspects of radar previously described by Bruce and contained scenes actually taken secretly during the war years.

Our thanks to Bruce Neale for a most interesting and well presented introduction to the history and development of radar systems.

## ANNUAL SOCIAL

For those who missed the announcement at the last meeting, there has been a change in venue for our annual Dinner and Social.

The original venue, the Army & Navy, has recently changed hands and the new management will not honour previously made bookings!, apparently leaving us 'high and dry' but due to the resourcefulness of our chairman, an alternative venue was found in a matter of hours.

Our Social will still take place on Saturday 17th January but make tracks for SPRINGFIELD MILL, Victoria Road, Chelmsford, where a warm reception will await you.

We will assemble in the Chelmer Bar, on the first floor (diners only), at 7.30pm for dinner at 8.00pm. Although we do not have a room of our own we have the guarantee that the tables are ours for the evening. The cost will be £7.50 per head (balance paid on the night). Menu is soup or fruit juice, choice from the carving table, sweet from trolley, coffee or tea. Wine may be ordered and paid for individually to suit your own requirements, likewise the gratuities. Car parking is in the public car park opposite.

## CLUB NET

Unfortunately some frequency adjustments are necessary, one due to a change in the band plan and the other from an oversight on our part to the existing band plan.

On 2M FM our usual frequency of 145.275MHz has recently been allocated to Data Transmissions, so our continued presence will not be welcome (let's hope the RTTY people recognise this as well!), therefore we will meet on 145.225MHz in future.

On 10M SSB our original frequency of 28.200MHz was within the space allocated worldwide to Beacons (28.200 - 28.300MHz). Although no signals can be heard at this time (e.g. GB3SX) we must honour the band plan and it has been agreed by the stations participating that in future we will meet on 28.325MHz.

A reminder of the times for the nets, 8.00pm for 2M FM and 8.30pm for 10M SSB.

**DF NEWS - Dick G3WHR The SNOWMAN event.**

Following the success of last years event, we have organised a two station Snowman on Sunday 18th January. The event will follow National Qualifying rules with frequent but random transmissions between 2pm and 4pm.

The start will be from Tiptree Heath NGR 884148, with first transmission at 1.20pm.

After the event tea will be available Chez Butson, 60 Churnwood Road, Colchester - NGR 021263. As usual, tea is on a 'bring a bite' basis. Please contact Ian Butson or me to confirm tea numbers.

This is the time of year when the soldering irons come out of hiding. Not only do they keep the shack warm, but they may be used to construct something! If you're short of ideas then may I suggest a DF set. They're quite easy to build, some kits are available, and the finished receiver will allow you to take part in the summer DF events.

The 1987 Chelmsford local events will be scored on a cumulative points basis, and the competitor with the highest score will be awarded a Trophy, to keep for one year.

**REMINDER from Membership Secretary - Ela G6HKM.**

Subscriptions are now overdue, if you are unable to attend the meeting, renewals may be posted to me (see address below) cheques made payable to 'Chelmsford Amateur Radio Society'. If you have not renewed this could well be your LAST Newsletter!

**CLUB LIBRARY**

A list of the books available from Brian, G3CVI, together with additions and amendments, is on the notice board at the meetings.

If any member would like to contribute a book to the collection, Brian will be glad to add it to the list.

**COMMITTEE MEETING**

The January Committee Meeting will be held in the Marconi College Residence at 7:30pm on Wednesday, 14th January. You are most welcome to join us.

**MANY THANKS - Roy G3PMX.**

May I take this opportunity to thank you all for the good wishes expressed through the greetings card sent for my recent short visit to hospital. I am pleased to report that the fault has been correctly diagnosed and a satisfactory repair carried out!

**SPECIAL THANKS**

I am sure all members will join in thanks to Chris and Sylvia for providing the excellent cups of tea during our intervals also for the tasty mince pies in the festive season.

Finally a reminder that space is always available in the Newsletter for Technical Articles, Letters to the Editor and Members Ads.

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\* A VERY HAPPY AND PROSPEROUS NEW YEAR TO YOU ALL \*  
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73 from Roy & Ela, G3PMX & G6HKM  
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**MEMBERS ADVERTISEMENTS**

**FOR SALE**

FT203R 2M FM Handheld transceiver, 3.5W output, c/w Nicad Charger. £150

Phil, G0ELM, Chelmsford 356877.

**FOR FREE**

To a good home, 18" Colour TV which needs attention.

Brian, G3CVI, QTHR. Chelmsford 71919.