

# Chelmsford Amateur Radio Society.

NEWSLETTER No.267

April 1988

## **NEXT MEETING - 2MT Writtle, The Birth of British Broadcasting.**

It is not widely appreciated that our Chelmsford is synonymous with the art of radio broadcasting, since it is a fact that just over sixty years ago at the Marconi Works in New Street the first historic broadcast was made, to be closely followed by the regular service from 'Two Emma Tock' at Writtle.

In his recently published first book, 2MT Writtle:-The Birth of British Broadcasting, Tim Wander, G6GUX, formerly a member of our society, has assembled the results of his four years detailed research into the station called 2MT and other historical events not previously revealed from the archives.

Tim has kindly agreed to talk about this interesting subject at our next meeting and will bring along some first editions for any members who would like to purchase a copy for their bookshelf. The meeting begins at 7.30pm on Tuesday 5th April, at the Marconi College, Arbour Lane, Chelmsford.

## **DATES FOR YOUR DIARY**

5 Apr. CLUB MEETING - 2MT Writtle, The Birth of British Broadcasting.

3 May CLUB MEETING - Visit to Chelmsford Police Headquarters.

Please note, THERE IS NO MEETING AT THE COLLEGE IN MAY.

7 June CLUB MEETING - Constructors' Competition.

## **LAST MONTHS MEETING - Phil GOELM.**

This featured a lecture on the general servicing and repair of amateur equipment presented by Bob G6AKL. Bob had brought with him a wide selection of equipment ranging from rigs to microphones, loaned by Arrow Electronics.

Servicing of amateur equipment has really only been necessary over the last ten years. This is mainly due to the influx of 'black box' Japanese equipment. Prior to this a lot of ex-forces equipment was used, this obviously was more reliable.

Over the past few years the complexity of radios has increased and most utilise at least one microprocessor to control the frequency synthesiser, display and front panel controls. At the same time, the size of the components is reducing and it is important to be able to gain access to all the circuit boards in the radios to ease servicing. With this in mind, most large rigs have their circuit boards on hinges enabling the boards to be unfolded during testing.

The miniature components (chip) which are available enable the size of the radios to decrease. However the heat produced in the P.A. stage must be dissipated and with manufacturers using smaller heatsinks, means that the P.A.s will be hotter thus reducing the life of the component. To compensate for this the length of the 'overs' must be kept short. This is particularly important if mobile rigs are used as base stations, where 'overs' tend to be longer. Particular care must also be taken when using handportables as mobiles due to their even smaller internal heatsinks.

This problem with heat dissipation is also apparent with linears. Some are supplied with small heatsinks and some with more substantial metalwork, enabling the heat to be conducted from the P.A. transistors efficiently. Obviously larger heat sunk linears last longer and most have better in-built protection circuitry. Protecting against input level overloads and high VSWRs.

Microphones for rigs can also be a source of problems. Microphones basically fall into two types; dynamic and electret. Dynamic use a moving coil principle and the electret use a charged variable capacitor varying with sound level. The electret needs a buffering amplifier and the output level is about twice that of the dynamic. Dynamic microphones can be prone to producing R.F. feedback, the R.F. being picked up in moving coil, however this can be eliminated by careful screening and decoupling. Microphones can provide a path into the internal circuitry of the radios for any stray R.F. fields. This can cause problems with the microprocessor control electronics. Again this can be eliminated by decoupling, however if these components fail it can be very difficult to locate the offending component due to the range of symptoms which can prevail. These problems can be accentuated in the mobile environment due to the more localised R.F. pickup within the vehicle.

Test equipment for the amateur when setting up a station can provide inaccurate results, particularly when measuring power and SWR. This is due to the sensing mechanism within this type of equipment. Bob suggested that it may be worthwhile for the club to purchase a good quality professional power/SWR meter, for loan, to save the amateur money on substandard versions.

The lecture came to a conclusion with questions from the floor. Our thanks to Bob for a most informative and well presented lecture.

## **MEMBERS NEWS**

The Society extends a welcome to Dennis Butcher, G1UB0, nice to hear you on the net.

The Jackpot raffle will be drawn at the April meeting and the prize will be a choice bottle of Asti Spumante.

On Feb.24th Brian, G0BDS, our Chairman attended a meeting organised by Ted Whitworth, G4UTO the newly appointed RSGB Regional Liaison Officer. The minutes of this meeting will be on the notice board for you to peruse.

## **COMMITTEE MEETING**

The April Committee Meeting will be held in the Marconi College Residence at 7:30pm on Wednesday, 13th April. You are most welcome to join us.

**DF NEWS - Dick G3WHR**

The DF season starts this month, and a full program of events has been organised. As in previous years the Chelmsford and Colchester local events have been interleaved, and will take place on Friday evenings.

The Chelmsford/Colchester clubs have been asked by the RSGB to host the National DF Final in 1988, so there will be no local Qualifying event. If you would like to take part in any of the local events, but don't have a DF set - No Problem - just turn up at the start, wearing old clothes, and arrangements will be made for you to accompany another team. A torch is also necessary for the spring and autumn events.

If you would like to operate the hidden station - sorry Class A only - then contact me as soon as possible. There are 3 trophies to be won on the local events. So if there's a gap on your sideboard that needs filling, then the more events you enter - the greater your chances of success.

**Programme of DF Events for 1988. (\* for RSGB Qualifying Event.)**

25 March	Chelmsford	10 July	* South Manchester
8 April	Colchester	15 July	Chelmsford
17 April	Mid-Thames (Peck Trophy)	31 July	* Mid-Thames
24 April	* Oxford	5 Aug	Colchester
29 April	Colchester	14 Aug	* Dartford Heath
6 May	Chelmsford	4 Sept	* Grimsby
15 May	* Salisbury	9 Sept	Chelmsford
20 May	Colchester	18 Sept	* National Final
12 June	* Northampton	30 Sept	Colchester
17 June	Chelmsford	16 Oct	Mid-Essex Trophy
26 June	* Coventry	4 Nov	Colchester
1 July	Colchester		

Chelmsford Events start from Tiptree Heath NGR 884148.  
Colchester Events start from Fordham Heath NGR 945264.  
For further details of RSGB Events, see Radcom.

**R.S.G.B. EXHIBITION - N.E.C. Birmingham.**

The response to our proposed coach trip to the NEC on Saturday 16th July has been favourable, we have 14 names so far but obviously we need more to fill a 52 seater coach. Please let it be known as **WIDELY** as possible that 'Chelmsford' are running a coach and to contact any member of the committee with names of those wishing to join in.

**PLANNING AHEAD**

**CONSTRUCTORS' COMPETITION** Now is the time to plan your strategy for winning a prize!..  
....there are only 9 weeks to go!

**VISIT TO MARCONI MUSEUM** We have been offered the opportunity of a summer evening visit to the museum at Baddow. In order that the committee can plan this event we need to know how many members would like to attend?

**NOSTALGIA NIGHT** We thought it might be a good idea to have our own version of the Antiques Roadshow at one of our club meetings, however, to ensure variety - we dont want you all turning up with an AR88 - Dick Brocks has been volunteered to act as exhibits co-ordinator.

If you have an Amateur Antique, and dont mind others having a careful twiddle of the knobs or peering into the glass case then please contact Dick at the next meeting or by phone on 0621-891868.

**LOGICAL THINKER - SOLUTION AND ANSWER - Andrew G4KQE.**

G4FKH was not on 80m on Monday or Tuesday (clue 1) and the 6m sked was on Wednesday (clue 4), so G4FKH cannot have used the piece of wet string, which had already been used by the time the Trio 2A was used on Thursday (clue 6). He did not use the Hotpoint 2203 (clue 1) while the Trio 1100EX was used on 160m (clue 2) and the Spark Transmitter was G3WHR's rig (clue 5) so G4FKH must have used his Trio 2A on Thursday. Therefore, from clue 1 the Hotpoint 2203 was used on Tuesday by G3CVI (clue 3).

As G3WHR's Spark Transmitter was used the day after one of the Trio rigs was used (clue 5) it cannot have been used on Monday or Wednesday, so it must have been used for the Friday sked. This leaves the Trio 1100EX to be used on Top Band by G3PMX (clue 2) and therefore the piece of wet string by G0BDS.

The 160 sked is not Wednesday (clue 4) so the band must have been used on Monday, leaving G0BDS to use the piece of wet string on Wednesday on 6m (clue 4). G3CVI did not use the Hotpoint 2203 on 2m (clue 3), so he must have used it on 20m, which leaves 2m as the band for G3WHR's Friday sked.

- To Summarize:-
- G0BDS on 6m on Wednesday using a piece of wet string.
  - G3PMX on 160m on Monday using a Trio 1100EX.
  - G4FKH on 80m on Thursday using the Trio 2A.
  - G3WHR on 2m on Friday using a Spark Transmitter.
  - G3CVI on 20m on Tuesday using a Hotpoint 2203.

I am pleased to hear that several members had a go at the puzzle in last months newsletter, and I hope you all enjoyed doing it, and didn't wear down too many pencils. Correct answers have been received, but the first one to be thrust into my hand at the last meeting was from Arthur G3KPJ - well done Arthur.

73 from Roy & Ela Martyr, G3PMX & G6HKM  
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