

# Chelmsford Amateur Radio Society

Affiliated to the RSGB

President: Harry Heap G5HF

Secretary: David Bradley M0BQC

Club Call Sign: G0MWT

Chairman: John Bowen G8DET

Treasurer: Brian Thwaites G3CVI

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## Next Month's Meeting - Visit Of RSGB President, Don Beattie G3OZF.

Whilst many Club Members have achieved fame in a variety of ways, others have made their mark in the amateur radio world. Perhaps the most famous of all is the late Louis Varney G5RV, of aerial fame, who served as a Council Member of the RSGB. Peter Naish VK2BPN, G3EIX is currently Federal President of the Wireless Institute of Australia. No less than three Club Members have held office as President of the RSGB; Willie McClintock G3VPK held office in 1986, Peter Chadwick G3RZP in 1993, and **Don Beattie** in the current year. The Club is justly proud of their achievements!

It is with great pleasure that we welcome **Don G3OZF** as our guest speaker this month. His talk is entitled 'Amateur Radio, Yesterday, Today and Tomorrow'. We are glad to have him back after far too long an absence. Way back in the sixties it was Don who struck a decisive blow for local amateurs in their battle with the local town planning nannies! That was indeed a victory for common sense and tolerance. He will probably be far too modest to tell us about that but, believe me, it's a jolly good story!

So come along and meet Don for an interesting and informative evening. Our **Chairman John G8DET** will be opening the meeting at **7-30pm., usual venue, next Tuesday, December the 5th.** Do your bit and support **Ela G6HKM's** raffle and, if you haven't done so yet, see **Brian G3CVI** and pay your subs!

### Before We Forget!

Christmas seems a long way off in mid November, which is why we forgot to extend the compliments of the season in previous years. Anyway, that's our excuse! We therefore take this opportunity to thank our readers for their support and wish them all a **Very Happy Christmas!**

### Dates For Your Diary

Dec 2 RSGB 74th. AGM Harrogate.  
Dec 5 CARS Mtg. Don G3OZF MASC 7-30pm.  
Dec 7 **CARS Xmas Dinner White Horse Pleshey 7-30pm.**  
Dec 13 CARS Comm. Mtg. Colin G0TRM's QTH 7-30pm.  
Dec 25 At last!

**The Net Controller for December is Chris G0IPU.**

## Stop Press CARS Quiz Team Come Second!

CARS fielded a four man team at the Dengie Club Quiz Night and came second against strong opposition from eight teams. The Essex Repeater Group won with Wickford in third place. Other teams were from Colchester, Southend, Raynet and two from the host Club. The Cars team consisted of Geoff G3EDM, Ken G7RFT, Trevor M5AKA and Colin G0TRM. Our thanks to the Dengie Club for a good evening with excellent food at half price. Watch out, we will be back!

## CARS Christmas Dinner - Change of Venue.

**This popular event will now be held at the White Horse Pleshey on Thursday December 7th, the time is 7-30 for 8pm** There are still a few tickets left at £14. See David M0BQC at the next meeting or ring him on 01245-602838.

## The Junk Sale - Auctioneer Colin G0TRM.

We will be holding the Annual Re-distribution of Surplus Equipment Sale on Tuesday January 2nd. 2001. You should be having a long hard look at all your surplus gear, components and all the stuff you bought last year and never used.

Please note that unsold items must be removed by the owners or donated to the CARS table at the Canvey Rally. You can either donate items to be sold for Club funds or items can be sold with 10% commission to the Club. The message is;

**Start looking now!**

## Last Month's Meeting - Rig Testing and Evaluation - Malcolm G3XVV, Nigel G6ZVV and Geoff G8GNZ

Our Chairman John G8DET opened the meeting with a welcome to our visitors. He related a cautionary tale concerning a flu jab which produced a severe reaction. For those who have not had an annual jab talk to John. The flu could be a healthier alternative! He also gave details of a visit he had made to the most interesting Bletchley Park Museum and had presented them with some valves for restoration projects. This brought a response from the floor that the engineers at BP are looking for metal rectifiers, as well, for the reconstruction of a piece of code breaking equipment. I checked my notes, as I remembered this was a news item on GB3RS, and believe the type number is STC RECTIFIER H18-8-1 60 ma. They are the grey ones with metal fins and smell like rotten eggs when they go faulty! Any lurking in the junk box? A straw poll of hands showed interest for a Club visit to Bletchley Park in April 2001.

The main purpose of the rig testing evening was to assist Members in getting their FM gear to comply with the latest specification. In addition, testing of HF equipment was also available. Murray G6JYB gave an introductory talk on the reasons behind the new regulations for FM gear. A summary is given overleaf.

The visiting rig evaluation team set up three workstations. Malcolm G3XVV provided two test sets driving one himself, with Nigel G6ZVV driving the other one. Geoff Blake G8GNZ brought along his space age spectrum analyzer to measure rig spurious. The cost of this piece of HiTech was about 30K in the mid eighties! The test set frequency was locked to an off air standard which enabled frequency measurements to a very high accuracy. Malcolm was quite prepared to sign Member's log books as evidence of 'time to time' testing to comply with Licensing requirements.

A number of Club Members took advantage of the opportunities on offer. The testing team were kept busy right up until closing time but we don't know how many rigs were actually tested.

Those Members not engaged in rig testing formed a number of discussion groups and generally socialised whilst Fred G2HNF did a brisk trade in books and odd and ends from

# Repeater Regulations - Summarised by Murray G6JYB

## The Background.

IARU 1996 - 12.5kHz Operation for Y2K to allow for New Channels. Replan to Reduce Co-Channel Interference. Bandplan Reforms (esp for Data users, VHF beacons). Repeater Equipment to comply starting in 1998. Users have longer - but not forever !  
2m Reforms: Also Replans Data/Packet, Beacons etc. Doubles Channels for Repeaters for Infill.  
Issues are Tx Output Deviation and Rx IF Filter BW

## 12.5kHz Requirements.

Don't confuse channel spacing with deviation. Tx Peak Dev. for 25K: +/- 4.8kHz, for 12.5K: +/- 2.3kHz. Rx IF Bandwidth for 25K: +/- 8kHz, for 12.5K: +/- 3kHz. For Repeaters Requirement is Mandatory on 6m & 2m, Optional on 70cm (no extra channels), 25K BW on 23cms  
Many systems just have Tx. Dev reduced (quieter audio). When IF filters present unadjusted users are distorted or chopped out.

## 12.5kHz Implementation.

Jan 1997 RMC announce intentions. Spring 1997 12.5kHz Plans/Options in ERG Newsletter. Aug 1997 All new applications to the RMC must comply. July 1997 DA/ER re-start on new site in 25kHz BW. Jan 1998 DA/ER Output Dev reduced to 12.5kHz BW (Rx left open for unadjusted 25kHz users) Jan 1999 12.5kHz IF Filters fitted - unadjusted/hi-dev users distorted (RMC starts licensing new channels)  
Jan 2000 All 2m Repeaters to be 12.5kHz - Mandatory. Jun-30 2000 Final Grace from RA Expires.

## And Next.

Jan 2001 Remote Control of Repeaters Mandatory. Toneburst Access (1750+/-25Hz) to be phased out! CTCSS Mandatory for all FM Voice Repeaters as of Jan 2004 (as per 6m now). CTCSS in Essex is Tone H:- 110.9Hz (other frequencies for other areas) TX Dev is 400Hz.  
Oct.2000 GB3AL New Amersham 2m Repeater CTCSS only to suppress interference/intermods.

## See Draft Licensing Guide on [www.radio.gov.uk](http://www.radio.gov.uk)

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Silent Key Don G0LLA's shack, raising £18 for Club funds.

Bearing in mind Murray's introduction to the evening it was with some trepidation that I offered my third hand FT480R for test. The frequency was some 600 Hz low, but unfortunately I couldn't find the adjustment for this. However the deviation was suitable for 25 kHz channel spacing so this was tweaked down to 2.5 kHz which means that I will not interfere on 12.5 kHz channel spacing.

John DET related to me a couple of tales about his VHF rig Just before the meeting he tried a test call with Colin G0TRM. Colin reported he was receiving a good signal strength but no modulation. When they met at the meeting the penny dropped. Colin was receiving on FM but John was transmitting SSB!!!. John offered his set for evaluation, on VHF. All parameters were within spec but a lazy oscillator meant that the UHF section could not be checked. John also had the club HF equipment tested and this was found to be within specification, the receiver sensitivity being particularly good.

Many thanks to all Members who brought their sets along for testing. A special thank you to Chris G0IPU who organised the event, but our particular thanks must go to Malcolm, Nigel and Geoff for giving their time and expertise to produce such a memorable evening.

*Report by Carl G3PEM*

## On Radio Interference Duties at the GPO by Dave G3PEN.

I have memories of my time in RI duties, when I covered the UK from HQ, on the "sticky" or "flag-case" interference jobs. On one occasion I went to Glasgow and Gairloch to look at interference from the new railway electrification, using a large vehicle filled with radio and TV gear covered in aerials and with a 40ft pump-up mast. I spent a week or two travelling up and down near the railway, making many measurements in all sorts of residential areas, including the Gorbals - during a major un-employment period. It seemed as if the entire local populace was either gathered on street corners, or peering from behind tenement lace curtains, and the trouble I had with the local youths trying to rip-off the vehicle you wouldn't believe!

Anyhow, unknown to me, the GPO had been advertising locally that a major TV licence evasion investigation was due in the near future, and my activities scared the s..... out of the entire area. All the local POs were inundated with licence applications,

and the Post-Master (postal equivalent of the Area Engineer) had to put staff on massive overtime to cope. It ended up with him sending instructions to my London HQ to leave his area immediately, else he would "take things to the top" - whatever that would have been. My boss simply told him to mind his own business, and think of the profits the licences were bringing in! Apparently, letters went back and forth between Glasgow and HQ for months after. Some P-Ms were really little Hitlers in their area, and certainly thought they were God!

As it turned out, eventually much of the interference, which was caused by sparking between the over head pick-up wire and the pick-up itself, gradually diminished as the rough spots were worn down, thus making better contact. Together with increased TX power, and additional local transmitters, acceptable S/N ratios were eventually obtained.

## Successful JOTA by Chris G0IPU.

October 21/22nd saw the 2nd C'ford Scout Group HQ's turned into a very successful JOTA station. It was run by the Scout leaders that are now in the Scout Am. Radio Fellowship. One hundred Cub Scouts and 10 Scouts earned their Communications Badge. There were many activities to aid in getting the Cub badge and the radio shack was well used. There were 22 contacts on 6M, England, Melilla-N.Africa, Spain Portugal & Belgium; 70cms, 11 contacts and 2M-FM, 25 contacts both England; HF, 32 contacts. UK, Germany, Holland, Faroe Is., Taiwan, Canada, W. Sahara and Portugal.

The Jamboree On The Internet - JOTI was also well attended with 115 messages received from 22 countries world wide using a mobile phone!

## Silent Key Sale for Don G0LLA

Fred is disposing of the following items on behalf of Doreen: Trio 530/S £150; KW 2000B + Spkr. & PSU £110; FT 747GX £150; FT290R £100; Microwave Mod. 30W Linear £30 (£115 if the last two items purchased together); Meteor Counter 600MHz. £75; Maplin GDO £40; 100W Dummy Load £10; MFJ 259 in case £100; AOR 2000 Scanner and PSU £100. All above items in GWO and with handbooks. Contact Fred on 01245-265676

## Joint Editors.

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**Deadline for the next N/L is Wednesday 13th. December**