

Chelmsford Amateur Radio Society

Affiliated to the RSGB.

President: Dick Brocks G3WHR
Secretary: Charles Shelton G0GJS

Club Call Sign: G0MWT

Chairman: John Bowen G8DET
Treasurer: Brian Thwaites G3CVI

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The February Meeting

The County Town of Chelmsford is known world wide as the birth place of Radio and Broadcasting, thanks to Marconi and his vision many years ago. Over the years many items of historical interest have been collected together and they form part of a unique collection which has only recently been saved from a sale which would have dispersed many of the items. GEC is a company which also has a long and diverse history, of which we are probably not so well aware, and has also amassed a collection of archives and memorabilia.

Louise Weymouth of the GEC Archivist's Department is coming to talk to us about the archives and memorabilia of both Companies, and she will also present a history of GEC. Members, their families and friends are welcome to join us in what promises to be an interesting meeting with a somewhat wider appeal than just amateur radio.

Our **Chairman, John G8DET**, will welcome Members and guests and, after announcements, get us away to a flying start at **7-30pm on Tuesday 1st. February** at the MASC in Beehive Lane. And just one more thing, please support Ela's raffle.

DATES FOR YOUR DIARY

Feb. 1st. Club Meeting GEC Archives. 7-30pm MASC.
Feb. 6th. Canvey Island Rally. We have a table booked.
We will dispose of your unwanted small goods for a fee!
Feb. 9th. CARS Committee Mtg. 7-30pm Ela's QTH.
Mar. 11/12th London Radio Show Picketts Lock.
Apr. 29th. Internatinal Marconi Day.

packets of components or crystals or even test equipment. This time we had a number of quality Hi Fi sets (which were purchased by our avid Hi Fi collector to add to his considerable collection), PSUs of all sorts and sizes (bought by those who realised a ready-made bargain) and a number of mobile radios. The soldering iron was put back into the sale and it was bid up to £3.50 - a bargain. A Video Recorder went for £5.00 and a Square Aerial and Decoder changed ownership. A box of WW2 aircraft parts included two Morse keys. The first, was a "Bath-tub" pattern key which was swiftly bid up to a delighted purchaser for £13.50, while a Pilot's Signalling lamp key went to another bidder for £5.00. Both items were donated. The Auctioning was brought to a close with an invitation to the large audience to have a drink and come back and have a look at the array of unsold items. A lot of enthusiastic horse trading then took place!

We have to thank Colin G4IHK for the very many goodies he gave to TRM to sell from his recent shack clearing exercise. Similarly to Brian G0BDS for his contribution and to everyone else who so kindly donated items, some anonymously, for the benefit of the Club Funds. After paying out the Commission Sales the Club Funds were swelled by an amazing £116, very good considering how slowly the evening had started.

Unfortunately one of the batteries on the radio mike was low giving rise to distorted audio. If anyone would like to improve the set up, please contact the Chairman.

Our grateful thanks to our resident Auctioneer, Colin G0TRM, and to Brian G3CVI and the Runners Chris G0IPU and Dick G3WHR, our President.

Report by John G8DET.

The Society meets on the First Tuesday of each month at the Marconi Athletic and Social Club in Beehive Lane Chelmsford, starting at 7.30pm. Club Membership fee is £8 annually. Free to Members under 16 and concessions to the elderly! A Club net operates on the second Tuesday of the month using 145.325MHz and 28.325MHz on the following Tuesday evenings starting at 8.30pm clock time. Club owned test equipment is available to members on request from John G8DET on 01245-224677. The Newsletter is distributed free either by the PO or Email.

Last Month's Meeting. Used Equipment Exchange

We were pleased that, although Scotland was having gales and rain, Chelmsford was blessed with a quiet night enabling Members and friends to bring in their offerings for the Annual Junk Sale. The reason for holding it in January was because the Committee felt a change from the usual film night would meet with Member's approval, which it appeared to do and because it would be nicely spaced from the Summer Table Top Sale. Further, it also fitted in well with the February Canvey Island Radio Rally, where we have booked a table, so that we can offer our unsold offerings to all and sundry.

The room was laid out with a parallel line of tables across the top, loaded with items for sale while the audience were seated in a near crescent in-front. Brian, our Treasurer was on the left of the top table, Runners Dick & Chris were stationed in the wings and our Auctioneer was Colin at centre stage.

Our Chairman wishing all present a Happy New Year and Millennium started the Meeting. A couple of minor Windows 95 date start-up errors were noted but generally everyone was Y2K bug free. The next hurdle being whether your computer will detect the 29th of February or think that this year will not be a leap year.

The Auction got under way with what the Committee thought would be a good starting item, namely a donated 25 watt, 250 volt soldering iron, brand new and still in its sealed plastic case. "Who will bid me £2.00?" No takers. "£1.50?" "£1.00?". "Well lets leave that," said Colin. "What about a nice Cassette Recorder?" No takers for that either! The large audience simply looked expectantly at the Auctioneer as if to see him pull a rabbit out of a hat. Slowly the bids began to come in. It was a very different Junk Sale from those in the past! There were no

Servicing Electronic Equipment - Geoff G7KLV

I had a couple of phone calls a few months ago and they both started off, 'Dad, do you think you could have a look at our telly?' All three of my daughters have perfected the approach that gives one the impression they are doing one a great favour by letting one mend their domestic equipment for them! Something to do with woman power? But, how does one refuse them?

Both sets were past their prime but, up to now, giving quite reasonable pictures. Just by chance they were both Fergusons.

The first one had made a popping noise when it was switched off and had emitted a horrible, pervasive, smell which hung around for a few days. My immediate thought was that it was probably a line output transformer failure. As usual my spot diagnosis was way off the mark! Removal of the back revealed an absolute dust trap. After treatment with a soft paint brush and the vacuum cleaner there didn't appear to be any signs of roasted components! Plug in to the mains, switch on, stand back and nothing! Fuses were OK and after continuity checks the culprit turned out to be one pole of the ON/OFF switch. These essential components are usually not very accessible, but after releasing it from the front panel the trouble was obvious. One side of the switch was a charred mess. In addition to the ON/OFF function it also had a momentary contact for booting the switch mode power supply into life in the stand-by mode. The switch was beyond repair. I shorted out said switch, plugged into the mains, shorted the boot switch contacts, and, to my surprise and delight, the set burst into life, giving a satisfactory picture!

The obvious thing would have been to purchase a replacement switch, but it was a special with the additional passing contact. Instead I replaced it with an ordinary switch and fitted a very compact delay-on-energising relay, which had a normally closed contact which opens a second or so after being energised. A sledge hammer..... Well, yes!

The other set belonged to our third daughter. It worked quite well and gave quite a good picture. There was just one snag. It was green mono most of the time but did, sometimes, have good days, and would then behave itself impeccably for a day or so!

Opening the back and after a good dust out, the trouble was immediately obvious. All modern tellies combine the CRT socket with a PCB carrying the RGB gun driver transistors together with other components and spark gaps etc. This board is connected to the main board by various plug/socket combinations. One of these had got the associated wiring caught tightly round a tall component and the tension was so great that the associated PCB had become distorted. This in turn had put the tube socket under tension, producing five dry joints, including the connections to the red and blue guns. Re-dressing the leads and five minutes work with a soldering iron and the set was going great guns. Sorry, that just slipped out! It worked OK for a few months.

Number three daughter called me again a few month's later and put on that characteristically weedling voice she's developed into an art form! Her telly now refused to work at all. How does one resist, particularly when they imply that it should be well within one's capabilities! Anyway, the set was dead and with the help of the circuit, (that is if you can even understand them with their jungle of IC's), I had a go. This was a Ferguson and the Library came up trumps. Anyway, the line output stage HT line was down to earth. After eliminating all the easy things it appeared to be the

line output transformer itself and the only way to be really sure was to take it out of the board. Sure enough the primary was shorting across to the low voltage windings. The worst possible scenario, as they say! Our daughter decided not to spend out for a new transformer so up it went to the resting place for old tellies, the Boreham dump!

The Answer to Something You've Always Wanted to Know. From John G8DET via the Internet.

The US Standard railway gauge (the distance between the rails) is 4ft.81/2 inches. That's an exceedingly odd number. Why was that gauge used? Because that's the way they built them in England, and the US railways were built by English expatriates. Why did the English people build them like that? Because the first railway lines were built by the same people who built the early tram ways, and that's the gauge they used. Why did they use that gauge then? Because the people who built the tram ways used the same jigs and tools that they used for building carts, which used that wheel spacing. Okay!

Why did the wagons use that odd wheel spacing? Well, if they tried to use any other spacing the wagons would break on some of the old, long distance roads, because that's the spacing of the old wheel ruts. So who built these old rutted roads? The first long distance roads in Europe were built by Imperial Rome for the benefit of their legions. The roads have been used ever since. And the ruts? The initial ruts, which everyone else had to match for fear of destroying their wagons, were first made by Roman war chariots. Since the chariots were made by, or for, Imperial Rome they were all alike in the matter of wheel spacing. Thus we have the answer to the original questions. The United States standard railway gauge of 4ft.81/2 inches derives from the original specification for an imperial Roman army war chariot. Specifications and Bureaucracies live forever. So the next time you are handed a specification and wonder which twit came up with it, it may be exactly right because the Imperial Roman chariots were made to be just wide enough to accommodate the back-ends of two war horses.

When we see a Space Shuttle sitting on the launch pad, there are two big booster rockets attached to the sides of the main fuel tank. These are the solid rocket boosters, or SRBs. The SRBs are made by Thiokol at a factory in Utah. The engineers who designed the SRBs might have preferred to make them a bit fatter, but the SRBs had to be shipped by train from the factory to the launch site. The railroad line to the factory runs through a tunnel in the mountains. The SRBs had to fit through that tunnel. The tunnel is slightly wider than a railroad track, and the railroad track is about as wide as two horses' behinds.

So a major design feature of what is arguably the world's most advanced transportation system was determined by the width of a horse's back side!!

Follow that!

WANTED 7" reels of recording tape. Do you have any, no longer in use? A Club member would like to know. Please contact the editors. Would the member who made the request to Colin G0TRM at the junk sale please refresh his memory!

Remember. You only get one chance to create a good first impression.

Joint Editors

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Deadline for the March N/L is Friday 18th February.