



Chelmsford Amateur Radio Society

Established 1936

Affiliated to the RSGB
President: Harry Heap G5HF
Secretary: George Farr G3UTC

Club Call Sign: G0MWT
Chairman: John Bowen G8DET
Treasurer: Brian Thwaites G3CVI

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July 2004

This Month's Meeting. Experiences in the Fleet Air Arm in WW II by Les Sayer Tuesday 6th. July, 7-30pm at the MASC Beehive Lane.

Although our last meeting, the Constructors Competition, offered a little light relief, our recent talks have all been highly technical. We thought it about time for a little respite, particularly with this very warm summer weather. At this time many of the older ones among us will have thoughts of D Day in mind. It was, therefore, a stroke of sheer genius that our Secretary George G3UTC arranged the visit of our next speaker.

He is Les Sayer and he is going to recall some of his WWII wartime experiences for us. Les was with the FAA and was a gunner cum radio operator on Swordfish's. These were reconnaissance aircraft attached to aircraft carriers and I understand they were known as Stringbags! One of our Members has heard Les's talk and has said how much he enjoyed it, so be sure not to miss our next meeting.

I'm afraid I got it wrong in Dates for Your Diary last month. The G0TRM Tabletop Sale is next month, August. Sorry about that but, at least, you've had good warning.

Ron M3CAM and Denis 2E0BIA have volunteered to organise the raffle this month so dig your hand down deep in your pocket and give them your support.

Dates for Your Diary.

July 6	CARS Mtg. WW II Experiences by Les Sayer. MASC 7-30pm
July 14	CARS Committee Mtg. Danbury Village Hall 7-30 pm
July 25	Colchester Club Rally Sheepen Road
Aug. 3	G0TRM's Table Top Sale MASC 7-30pm.

The Club Net Controller for July – Colin G0TRM

The Amateur of the Year Award

It seems a long way away but it is the time that your Committee has to start thinking about the AGM in October! The AGM is the time when we pay tribute to one of our Members. Selection of the honoured one is entirely in your hands. Give your nominations to Carl G3PEM or any Member of the Committee for the Member who you feel has made an outstanding contribution to either the Club or to amateur radio in general or to both. A voting list will be prepared and a democratic vote will eventually decide who will receive the honour at the AGM.

CARS Member Receives American Licence

About 18 months ago CARS Member David Warboys got his Foundation Licence M3CCM through the Club. Since moving to Florida he has gained his Technicians Licence KG4ZLB/AG and he has just passed his General Class Examination which will enable him to be able to operate HF with up to 1.5 kilowatts. As well as the written exam they still have the Morse Test in the States. Congratulations David.

CARS meets at 7-30 pm on the first Tuesday of the month at the MASC, Beehive Lane, Chelmsford.

For details contact our Secretary: George G3UTC on 01277-622707.

Club Nets: Tuesdays 8-30pm: (2nd) 145.375 : (3rd) 1.947 : (4th) 1.947 : (5th) 145.375. All +/- QRM.

Newsletter Editor: Geoff G7KLV 01245-473822 or email: geoff@g7klv.free-online.co.uk

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Please advise changes of address to Geoff G7KLV.

Last Month's Meeting

The Constructors Competition

Report by Carl G3PEM

This year both the attendance and the entries were well down on previous years. There were only 4 entries and three of those were from current Committee Members! The entries were as follows: An LC bridge using a PIC by Geoff G7KLV, an announcement board for radio controlled racing cars by Anthony M1FDE, a high class valve audio amplifier built in the 1950's by Colin G0TRM and a presentation on my new radio shack.

Colin built this 15 watt audio amplifier over 50 years ago and it had not been used for about forty years. The only work required on resurrecting this amplifier was to reform the capacitors by gradually increasing the main's voltage over a day or two and some work was required on one of the valves. He demonstrated the amplifier working by connecting a small cassette player to the input. Colin also showed the cost of parts 50 years ago that added up to £7.12. 3 in old money or £7.62 in new money.

Geoff entered a "PIC" LCF Meter, having bought a copy of Everyday Practical Electronics on the bookstall in the market and found this project which appealed to him. It uses a PIC [Programmable Integrated Circuit] which is a simple computer and the functions can be programmed in by the use of software provided by the magazine or can be bought already programmed. The article also gave the address for the purchase of a ready made PCB. The specification for the meter measurement is for capacitance from 1pF to 6500 uF and inductance from 1uH to 10H; it can also be used as a frequency counter up to 2 MHz with a 5 Volt p-p input. Geoff stated that there were still some snags and during the question and answer session some one said that there had been further comments and suggestions in later issues of the magazine.

Anthony has a friend who is into radio controlled model racing cars and he did the design work for his entry which is an electronic scoreboard which gives details of the races and times etc. The scoreboard measures about 3' X 3' and uses over 300 super brightness LED's. There is one single digit display, six 1½ digit displays and a 3 ½ digit counter with it's own controlling PIC. It is all controlled from a lap top by a cable with the additional option of radio control over an 868 MHz radio link to enable remote positioning. A sensor monitors the cars crossing the finishing line. The board has been designed to be readily visible in bright light and was effectively demonstrated against the brightness of large windows.

I entered a presentation on my new shack which has been my major project since last June. This involved the selection and purchase of a new 10' X 8' shed and installation of all my equipment. I

gave a description of the selection of the shed carcass, the construction of the base and the final fitting out. Particular attention was paid to improving the layout based upon experience in the old shack as well as increasing the area and conductivity of the RF earthing.

Those were the entries and the audience had time to examine the documentation before voting for their choice. The winner was G7KLV, second was G3PEM, third was M1FDE and G0TRM was fourth.

As I said earlier the audience turn out was low and with fewer entries as compared with previous years and I wonder why. Was the turn out low because of the holiday season, or were you put off by the previous months lecture, or, heaven forbid, that you did not wish to support the constructors evening? I would be grateful if you would give me your thoughts at the next meeting.

The low number of entries is very worrying. Are we becoming too much of a 'black box' hobby? Were you put off from entering because you thought your entry would not warrant a place. Just remember that because it is a constructors competition it does not have to be particularly radio related although it would be nice to have some electronic bias! But that is not essential, as long as YOU have constructed it yourself it is eligible.

I would like to suggest that next year, if we decide to continue with the competition, that you have a go at making items of test gear that every shack should possess, that is a dummy load or a VSWR meter. Talk to a QRP member for advice. These are just suggestions and there are many other things that can be easily constructed. You will get considerable pleasure and satisfaction from a spot of DIY!

Was the lack of notice a contributing factor? Geoff.

Memories of D Day 1944

Our Chairman John G8DET watched the D-Day Programmes on TV & listened to many of the memories of those who took part in the liberation of Europe.

At the Constructors Competition Evening he invited those who had some thoughts about what they remembered 60 years ago to share a few words in the CARS Newsletter.

From Brian G3CVI

On D-Day minus about one and a half I found myself aboard HMS Actaeon steaming down Southampton Water to carry out the trials which every new ship must complete before the owners will sign her acceptance papers. The pilot said that we should experience some congestion due to other vessels. There were hundreds of ships of all imaginable types. They were anchored or moored to buoys in multiple rows on either side of us and as far as one could see. We were to do the degaussing tests off Hurst Castle at the western end of Spithead on the mainland opposite The Isle of Wight. Turning the "corner" at Calshot to fetch

Hurst, the craft were so close that we were ordered to drop to five knots to avoid swamping some of the smaller landing craft and one man subs. Having completed the tests we looked for a space to turn round and continue to an area for veering cable but it was impossible; the width of clear water was less than the ships length by many feet so we were forced to steam astern all the way back past Cowes to Lee-on-the-Solent in order to go ahead and re-enter Southampton Water and so return to the yard. Such a manoeuvre is normally never performed and "chiefy" was NOT pleased.

During the night the citizens of the town were aware of a low rumbling sound which at first was assumed to be a last fling from the Luftwaffe but there were no sirens and we had a quiet nights rest. Imagine our surprise on the following morning when we set out in the same vessel to carry out the remaining trialsthere was not a ship in sight other than a few wrecks which had been there for weeks. The invasion had begun as we heard "over the wireless" during our unimpeded passage to the open sea.

From Anthony M1FDE

I'm afraid I wasn't born then.

My thoughts anyhow....My mother was a young girl and she was sent to live in the countryside.

My grandfather worked in the Austin car factory in Longbridge, Birmingham, making Lancaster bombers.

And I've also been to Auschwitz - fortunately as a tourist, although "tourist" isn't the right word at all. I'm sure it affects different people in different ways. It is together staggering and shocking when confronted by the huge evidence of the scale of the death that took place. It is something no one forgets, and perhaps something every young person should experience.

Why is it that during wartime they built the Colossus computer in 10 months but after it took 6 years to build the ACE?

From Patrick 2E0XAP

I'm too young for such things at age 58. My folks grew up in pre-war Burma and had to get out on foot over the Himalayas on the notorious Trek'. They spent the rest of the war in India, except for the Battle of Kohima where I think my Father was a very junior doctor. He described a battle for the governor's tennis court, with a duel between the Japs and Allies across its width. My folks came to England in 1946, and never went back for which I'm grateful.

I'm sorry about the lack of involvement in D-Day! A cousin, Eddie, a Tank Commander in the Duke of Wellington's Regt., was killed at the Battle of Coriano Ridge, the last of the series of engagements consequent upon the failure to exploit the Anzio landing.

That was the nearest anyone in my family got to D-Day.

From Ken G7RFT

As an 8 year old living near Sherborne (Dorset), I remember that we had many American troops training around our village in the spring of 1944 and became quite used to their activities - very exciting for us kids, mainly infantry with Jeeps but some larger half tracks with mounted cannon, also some towed guns. Then quite suddenly they were no longer in evidence, presumably around 1st of June, although I didn't keep a diary at that time.

As a child I had no idea why they had ceased their training until the morning of D Day itself when the skies were filled with aircraft towing gliders all day long. I seem to recall that there were Dakotas', Halifaxs' and Stirlings' being used as tow aircraft and upwards of twenty at a time passing over our location and heading south, but the outstanding memory is that this flow of aircraft seemed never ending, and persisted throughout the whole of D Day and at reduced rate the following day. In all my days of observing aircraft I can honestly say that I have never ever seen as many aircraft in the skies at any one time and I still marvel at the scale of the Allied effort on that Day.

More on DRM by Geoff G7KLV

Our recent talk on DRM was one of our best. However such is the complication of the modulation process, and the brief explanation given in Simon Gosby's presentation, that I felt somewhat bewildered and I confess to not understanding it. I knew that there were some other Members who felt the same way. Dick G3WHR had drawn the short straw and had reluctantly agreed to do the write-up. I asked Dick if he could give us a simple explanation of the process and he readily agreed. Dick being Dick, spent a lot of time preparing the text with much revision and endless honing until he got something that he was happy with. Time was getting on and when he came to email it to me his server played up! He finally delivered it to me by hand the evening of the day before my printing deadline.

I still do not claim to fully understand the DRM modulation process but I certainly understand it much more than I did. His write-up has been praised by a number of Club Members and has attracted favourable comment from unexpected quarters, a member of the Verulam club, but it just goes to show the technical expertise available within our Club!

This is rather a belated word of thanks and praise for his efforts to enlighten us! He has asked to be excused from doing future write-ups for the time being! Thank you Dick.

June 144 MHz Contest by *Chris M5CSM*

On the 15th of June Steve G4ZUL and myself entered the 144MHz 6 Hours Others contest. The weather was sunny and hot all weekend which made it very pleasant to be out and about on the field. The location was as before, the 75m hill in South Hanningfield. A very scenic location overlooking the reservoir.

This year the mast was extended to a total of 30 feet but still using the same 11 element Yagi. Once the mast was hoisted up in the air the next thing was to erect the tent and to sort out the M5CSM/M5AKA generator. Since we decided to manually rotate the mast, we placed the tent as close as possible to the mast. We then placed the generator as far away as possible, although it still gave us a lot of problems and we had to use the noise blander on the radio throughout the contest. The rig used was an ICOM 706 MKIIG driving a 100w 2m amplifier. This is the maximum power that the generator 850w peak / 650w continuous generator can handle. Electrics have to be kept to a minimum: radio, laptop, and a 15w energy saving light bulb!

Due to delays in getting the mast sorted out and into the air we started an hour later than intended so started at 4pm and finished at 10pm. At 4pm we soon got to business and called throughout most of the contest clocking up an average 27 QSOs an hour. The contest was reasonably busy throughout with a little drop in activity during dinner time! Our best DX was 786km into Germany JO50 square.

We had a really good time and have made significant progress from last year. We have high hopes of getting a certificate for the '6 hours others' section so now the eager wait begins!! Many thanks for QSOs from Frank G3FIJ and Jim 2E1GUA/M3GUA.

Mention of Jim reminds us that he came second in the 2003 Harwich Challenge with 36 2m and 21 70cms squares. Congratulations.

Trevor's Timely Topics

There will be an updated CARS CD at the next meeting. This will include a number of new features: a selection of typical questions on the Advanced Course, a considerable amount of excellent antenna radio engineering design and propagation software, in total over 60 separate programs, courtesy of Reg G4FGQ, coaxial cable data, HF propagation predictions and the DIGTRX program for SSTV. This is all available for free on the new CD, but be sure to get there early to be sure of your copy.

Bob MIDTA was up against the bureaucrats, trying to get a licence to allow him to transmit in the Philippines, his wife's home. The RA after some persuasion issued him with a new

licence M0DTA which overcame the problem, so listen out for him when he goes on holiday!

Trevor is looking for old Amateur Radio licences from the period 1920 - 1975. This includes the separate ATV and Mobile licences that used to exist. If anyone has any that he can either have or borrow for scanning will they please contact him on 0794 103 9832 or email m5aka@amsat.org

This month sees the fifth anniversary of the CARS website and under John G8DET's supervision it has developed out of all recognition.

The Hit Counter was introduced in October 2002 and hits average about 500 a month and the 10,000 mark was exceeded recently. Visitors include amateurs from NZ, Australia and the US.

The success of the CARS website is the result of John's hard work and his tireless efforts in keeping it up date. It provides the latest Club news to Members and tells the world what the Chelmsford Club has achieved.

Antenna Toolkit by *Geoff G7KLV*

A few months back I gave a brief review of this book by the late Joe Carr. I had borrowed the book from the Central Library and the accompanying CD was missing. Simon G7HCD gave me a copy of the CD. Since then it hasn't been possible to find space to finish the review.

My first problem was to install the CD. There are two versions of the install program, one for Win 3.1 and the other for Win 95. Repeated attempts to install it on Me and XP failed. I eventually got it working by going into Windows Explorer and single clicking on *antennas.exe*. From then on it's easy! Using a 98 computer it did install itself after a little coaxing but I couldn't access the data.

ANTLERS III then comes up and you select the group of aerials you want, corresponding with the chapter headings, and then the particular type. You then select frequency with a sliding control; the range is 100 KHz to 32,767KHz and the various dimensions appear instantly. Clever stuff but nothing that could not be done quite easily using a pocket calculator.

There is a group of photos of various plugs and pieces of test equipment. The illustrations showing details of the plugs are so poor as to be virtually useless. Also included were some data files that I couldn't access.

Perhaps I'm a trifle sceptical but my feeling is that the accompanying CD doesn't enhance the book itself at all. However, my main criticism of the book itself is that the title is somewhat misleading! It should be titled 'HF Antenna Toolkit'. My own feeling is that it is a good book and well worth a read especially if you are just starting out.

Simon has very kindly presented his copy of the book complete with the CD to our library and if you would like to borrow it yourself, get in touch with our Librarian Ron M3CAM on 01245-265739.