



Chelmsford Amateur Radio Society

Established 1936

Affiliated to the RSGB

President: Carl Thomson, G3PEM

Treasurer: Brian Thwaites G3CVI

Club Call Sign: G0MWT

Chairman: John Bowen G8DET

Vice Chairman Martyn Medcalf G1EFL



Newsletter No 566

Web Address: www.g0mwt.org.uk

May 2013

This Month's Meeting

- Very NEW DATE: **FRIDAY, 3rd May, 7.30pm for 8pm Start**
- Very NEW VENUE: **TARG QTH Canvey Island – Just for the May Meeting**

“Combined Meeting with Thames Amateur Radio Group Quality Table Top Sale and Social at Canvey Island.

Come along and look for a bargain at the first joint CARS/TARG Table-Top Sale. There is Free parking, Free Tea/Coffee and biscuits for CARS members. Four tables are allocated to CARS Members – more are £3 - £4 to non-Members. Please book in advance to CARS Editor.

Address: Jubilee Hall, Waterside Farm Sports Centre, Somnes Ave, Canvey Island, SS8 9RA

Directions: Waterside Farm is the first major roundabout you encounter when getting onto Canvey Island. From this roundabout, take the Town Centre turnoff (Somnes Avenue), and after a few hundred yards, you'll find a right-hand turn with filter lights taking you to Waterside Farm Sports Centre. There's ample free parking, and Jubilee Hall is behind the Sports Centre, at the back right of the car park. Please see TARG or CARS Web Sites for pictures.

Map: www.thamesarg.org.uk/events Car sharing can be arranged – contact Editor.

TARG will provide a good Raffle with a number of Prizes contributed by CARS. See you there.

Dates for your Diary

Saturday 27 th April	CARS operating GX0MWT from Sandford Mill to commemorate Marconi's Birthday. Open Public Day 10 to 5pm – Free to park and enter – fun for the family.
Friday 10 th May	CARS – NO MEETING IN GREAT BADDOW - See notice above for the 3 rd May.
Sat & Sun 11/12 th May	CARS Operating GB5SM from Stock Windmill. 10am to 5pm.
Friday 14 th June	CARS Meeting at Great Baddow Parish Hall – “Naval Radio Equipment for the Radio Amateur”. Meeting starts at 7.30pm.
Friday 5 th July	RSGB Centenary Day at Bletchley Park

To be/remain a Member of CARS, send a Cheque for **£15** – Adult Membership (16s and under are FREE) to:- Mr Brian Thwaites, 118 Baddow Hall Crescent, Great Baddow, CHELMSFORD, CM2 7BU.

If you would like a receipt, please enclose a stamped addressed envelope with a 2nd class stamp.

May we remind you that if you have NOT paid your Subscription for this year you may be deemed to NOT be a Member of CARS and NOT entitled to Newsletters, etc.

Thanks to Geoff, G7KLV for sending the postal Newsletters – could it go by E-Mail to reduce our postal costs? Please inform Brian, G3CVI by E-Mail at g3cvi@g0mwt.org.uk of any changes to your callsign, postal or E-Mail address, etc. Only by **YOU** sending Brian your E-Mail address, can we ensure **WE** get it right!

Club Nets: Tuesdays 7.30pm (1st) 145.375, (2nd) GB3ER, (3rd) 1.9475, (4th) 28.375 (5th) 3.756MHz +/-QRM
NOTE – Simplex 2 Metres on 145.375MHz at present – or GB3DA.

Net Controller is TBA

Many thanks to Geoff, G3EDM and Patrick, M0XAP for April.

Last Month's Meeting: "Kits for the Radio Amateur" by Mark Sanderson, M0IEO

Mark opened the presentation with a useful description of the hand tools and instruments usually needed when building and testing Kits. He explained how to look for the best and most suitable tools on the market and how to care for them to ensure a long and useful life. He also outlined the differences between analogue and digital multi-meters with their advantages and disadvantages. To end the introduction he reminded everyone of the need for electrical safety when working on electrical circuits, especially when mains or higher voltages were involved. He also included some useful hints and tips for assembly and for good soldering practices.



Mark, M0IEO showing a Kit Receiver. Photo by Peter Sipple, M0PSX

He reminded the audience that the CARS Constructor's Competition was now just a few months away and urged everyone to "have a go" and build something for the Competition. He explained that a wide range of radio projects would fall within the scope of the Competition. Home Brew designs and Kits built by both experienced constructors and beginners would all be welcome to enter their projects.

Mark then went on to describe a sample of the Kits available and with the aid of pictures and a receiver passed around the audience he described Kits supplied by Ramsey, Elecraft and MFJ. There are many other manufacturers and suppliers of Kits on the market and he suggested that constructors researched into the excellent products available in the UK. It was possible to find kits ranging from simple receivers up to sophisticated transceivers, such as the K2 and K3, which would provide enhanced performance using DSP techniques. Some Kits needed assembly at component level and others used a modular approach.

He suggested that constructors might be interested in other scientific communication projects, e.g. communication using laser light or perhaps those which used vintage components such as Nixie Tubes or vacuum tubes. There was a most interesting Doppler radio direction finding Kit available from Ramsey.

It was a most informative and interesting presentation by Mark.

Some Web Site references for you to look at: -

- www.ramseyelectronics.com
- www.spectrumcomms.co.uk
- www.wsplc.com
- www.genesisradio.com.au/
- <http://www.users.globalnet.co.uk/~walfor>
- <http://www.sdr-kits.net>
- <http://www.essexham.co.uk/news/cars-april-2013-club-night.html>
- <http://www.cumbriadesigns.co.uk>

Peter Bridgeman, G3SUY

This Month's Radio Sport (Contests) - All in Local times, unless stated

4 May – 432MHz Trophy – 14:00 to 22:00 UTC
15 May - RSGB Club – DATA – 20:00 to 21:30 hrs
23 May – RSGB Club – CW – 20:00 to 21:30 hrs

6 May – RSGB Club – SSB – 20:00 to 21:30 hrs
18/19 May – 144MHz May Contest – 24hrs
25/26 May – CQWW – WPX – CW – 48hrs

Steve, G4ZUL

CARS Propagation Forecast for this Month, prepared by Gwyn Williams - G4FKH

Asia *Dhahran* - around 20:00 on 18.1MHz for 85 percent of days, with poor signals.
Oceania *Sydney* around 20:00 on 7.1MHz for 62 percent of days, with poor signals.
Africa *Johannesburg* - around 20:00 on 10.1MHz for 91 percent of days, with fair signals.
S. America *Rio de Janeiro* - around 22:00 on 10.1MHz for 86 percent of days, with poor signals.
N. America *Saskatoon* - around 06:00 on 14.1MHz for 73 percent of days, with poor signals.

Gwyn, G4FKH

President's Jottings

Our thanks to Mark for last month's interesting talk on the building of Amateur Radio Kits, I hope that it will inspire some of you to have a go! To help you with selection of a project in this newsletter you should find some web addresses of kit suppliers in the UK, they have various types of kits covering all aspects of amateur radio.

During the meeting it was suggested by some members that we have a Club Construction Project, I have two suggestions "for discussion". A SDR receiver from a kit, this would give some experience at building and operating such a device.

OR....

I have been looking at past RadCom's and in June/July 2012 there is an article on a Digital VSWR meter. It seems a pretty straightforward construction project and has the advantage that it employs some programming of the PIC. There is also some state of the art components in the project. If anyone is interested in such a Construction Project, please talk to Mark or myself.

Please support the combined meeting with the Thames Amateur Radio Group in May.
Thanks to all club members who assisted at Sandford Mill this month.

Please make a note in your diaries for Saturday 27th April when we are operating from Sandford Mill for the Council's Public Open day to commemorate the Birthday of Marconi on 25th April 1874. 10am to 5pm.

Carl, G3PEM

CARS Training Courses – Advance Opportunity in July

Courses are held at the Danbury Village Hall near Chelmsford on Thursday evenings between 7 and 9pm.

Following our current Intermediate Course which concludes at the end of May, a specific session for the Advanced Exam is planned for Monday July 1st. Please contact Clive G1EUC for more information on this and later courses.

Contact the **Training Organiser Clive G1EUC** on Tel: 01245-224577. Mob: 07860-418835
Email: training2013@g0mwt.org.uk See also our Training page: - <http://www.g0mwt.org.uk/training/>

Thames Amateur Radio Group (TARG)

Please put 19.30hrs Friday, 3rd May 2013 in your diary. This is the First Friday in the Month.
CARS is the usually the Second Friday in the Month but NOT in May when we team up with TARG for a combined Table Top Sale at Canvey Island – QTH of TARG.
Full details can be found at: <http://www.thamesarg.org.uk/news/>

Meetings are at: Jubilee Hall, Waterside Farm Sports Centre, Somnes Avenue, Canvey Island, SS8 9RA.
There is large free car park. The hall is immediately behind and hidden by the main Sports Centre.

Norman Crampton, M0FZW T: 07899 803714; E: m0fzw@btinternet.com

Sandford Mill – CARS Operating Amateur Radio

1) April-20: International Marconi Day – IMD – GB4IMD

Sandford Mill was open only to Amateur Radio Members on Saturday, 20th April to commemorate International Marconi Day for the Radio Amateurs. This event is organised from Cornwall by GB4IMD. CARS was an IMD Award Station and so persons were keen to work Chelmsford. We are using GX0MWT for most of this year.

SSB was organised by Brian, G3CVI from the Marconi Hut.

CW Morse was organised by Gwyn G4FKH from Dr Bowles outer Office.



Juhani and Adrian in the Marconi Hut



Carl, G3PEM looking at the log – Patrick on the microphone

It was a beautiful day only blotted by there being the obligatory CW Contest. Contest stations do not want to work IMD stations where often a friendly chat is involved with Marconi related topics.

It was lovely to see a number of CARS Members including Adrian M0ABY and Mavis Soane from Wheathampstead, Juhani Tapaninen, OG8C/OH8MXL from Finland who did some logging in the SSB Hut and made a CW Contact from the upstairs Morse Station. CARS Intermediate student, Lucy Powell, M6ECG had a go at computer Logging in the Marconi Hut and then took to the microphone like a “Duck to Water” for a couple hours including a number of “pile-ups”. She said she enjoyed herself – well done.

The SSB station worked 99 contacts mainly in the UK, Ireland or Germany. The CW Team made 88 Contacts mainly into America but found the going hard.

2) April-20: International Marconi Day – IMD – GB4IMD

As a practice CARS were QRV using the 6m band for IMD as well. This is their report.

The 6m Team assembled at 10.00am. Following a cuppa and exchange of the latest news and ideas about how the station should be manned, an IC-746 Pro III was connected to the Innovantenna 6 element LFA-Q which was then raised to 40ft. Beaming due East a clear frequency was identified, just HF of the International Centre of Activity at 50.150MHz. At this time of the year, with no Sporadic E, and Propagation Reports showing the band closed, it was clear but the team would be hard pushed to find any real DX. Nevertheless Clive G1EUC, Penny M6ZXB, Peter G1FOA, Santina M6TTR, James 2E1GUA and Norman M0FZW took it in turn to operate, working 10 stations including D, G, M and ON prefixes.

Weak signals from the UK stations that responded to our CQs were not on our beam heading. Swinging the beam around in their direction resulted in a huge increase in signal strength, proving that Justin, G0KSC's, claimed front to back ratio is well founded. It was no surprise that stations we had previously worked, called in for a second QSO when they heard our lady operators. Logger 32, QRZ and a Cluster website were installed on a PC and everyone familiarised themselves with their operation. Unfortunately the linear amplifier we had hoped to boost our signal, steadfastly refused to co-operate. By 17.00hrs we had satisfied ourselves that, with an overhaul or replacement of the amplifier, we will be fully prepared for 20/21 July when CARS have the G100RSGB Centenary Call-sign.

Norman, M0FZW

Ed: Thank you Norman for the write-up and to all who took part –and Clive G1EUC for the use of your equipment.



John, G8DET with Lucy, M6ECG and Brian, G3CVI in the Marconi Hut



Steve, G4ZUL standing while Andy, G0IBN works the Morse Key

3) Sandford Mill – Marconi Radio Interview.

Peter Watkins was interviewed by Phoenix FM DJ Scott Ross about the special event taking place next Saturday, April 27, at Sandford Mill Museum in Chelmsford to celebrate Marconi's birthday.

You can listen to a recording on the web at <http://www.phoenixfm.com/2013/04/20/is-there-anybody-out-there/>

It is a very good Interview – thank you Peter for doing it.

Trevor M5AKA

4) April-27: Chelmsford City Council - Marconi Open Day

The radio collection at the Sandford Mill Museum in Chelmsford will be open to the public on Saturday, April 27th from 10am-5pm to celebrate the Birthday of Marconi who was born on April 25, 1874.

CARS will be operating SSB using GX0MWT from the historic 2MT Writtle Marconi Hut inside the museum, while CW Morse will be sent from Dr Bowles outer office on the First Floor.

The Annual Meeting of the Radio Officers Association is in Chelmsford this year and they are visiting Sandford Mill at 1.30pm. The Mayor of Chelmsford is visiting at 2pm.

The Sandford Mill Museum is home to an extensive collection of historic radio equipment, including Spark Transmitters from the late 1890's and also include, ship's radio cabins 1900s to 1970s and historic collections from Marconi and other Chelmsford industries. There are also special displays on the New Street factory, ship's radio officers and the steam yacht Elettra - Marconi's floating laboratory. Furthermore, there will be plenty of family fun with CARS Members (Colin, G0TRM and helpers) mechanical Morse Code sending and activities with sound, light and electricity.

Sandford Mill is run with the help of the Friends of Chelmsford Museums and other ex-industry volunteers. It relies on the support of several voluntary bodies including the Radio Officers' Association, the Marconi Veterans Association and the Susan Trust. Susan is the last wooden Chelmer Barge and is moored at Sandford Mill. Sandford Mill Post Code for SatNav users is: CM2 6NY.

The museum is open to the public between 10-5pm on Saturday, April 27. Admission and parking are free.

- A map showing Sandford Mill can be seen at: <http://tinyurl.com/7mh7b>
- Chelmsford Council <http://www.chelmsford.gov.uk/marconi-day-sandford-mill>
- CARS at Sandford Mill <http://www.q0mwt.org.uk/sandfordmill/index.htm>
- 2MT hut teaches pupils of past http://www.southgatearc.org/news/april2010/2mt_hut_teaches_pupils_of_past.htm

Trevor M5AKA

Blackpool Radio Rally

Every year I say to myself that I will go to the Blackpool Radio Rally. This year I finally made it. Val and I decided to make a break of it by staying for 3 days. We set off at about 10 o'clock on Saturday morning travelling 272 miles to our hotel in Blackpool. We had a good run until we got to the outskirts of Preston where we held up due to an accident, eventually arriving at our destination at 4 o'clock. The hotel we stayed in was called the Bona Vista about a mile away from the Radio Rally.

On the Sunday morning we left the hotel and walked to the Rally which was held at the Norbreck Castle Hotel. The hotel was very large and we eventually found the hall. The hall was packed with about 90 stands. Moonraker, Sandpiper, Radio World, RSGB and off course Waters & Stanton were some of the companies attending. We spoke to Steve Hoy from W&S they had travelled up the previous evening and had been up since 6am that morning setting up the stand. They were travelling back that same day not getting home until very late that night. I purchased a 2m/70cms aerial from them - this may sound silly travelling over 500 miles to purchase an aerial which I could have bought at Hockley, but I did save £5!!

After leaving the rally we took a tram ride to the tower and went up to the top. The tower is 518 feet 9 inches comprised of 93 tons of cast iron, 2493 tons of steel and over 5 million bricks. We didn't try to count them!! We bought a few souvenirs to remind us of our little break. We both enjoyed our time in Blackpool, but do not think we will go back. We returned home on the following day. The journey was much better and only took us 4.5 hours. Total mileage 544 miles. A very enjoyable but tiring expedition.

Martyn Medcalf G1EFL assisted by Val Medcalf.

Radio Balloon Launches near Chelmsford

On Saturday, April 20 at 9am the NSE balloon was launched from Bicknacre, near Chelmsford.

It carried two transmitter payloads:

NSE: 434.650MHz, 50 baud, 425Hz shift, ASCII-7, 2 stop bits, no parity

CHEAPO: 434.300MHz, 50 baud, 425Hz shift, ASCII-7, 2 stop bits, no parity

It reached an altitude of ~27 km and landed in Sussex. G8DET reports hearing it at 9.35am but lost it at 10am.

Watch a video about the Bicknacre Balloon at <http://www.youtube.com/watch?v=gABmEogsZxI>

On Saturday, April 27 at 10am, Matt Whitehead is planning to launch ESRB from Galleywood Common, just south of Chelmsford. It carries a single transmitter payload:

Frequency: 434.075MHz

Call sign: ESRB

Data format: 500Hz shift, 50baud, 8N1 ASCII

For more information:-

- Tracks of balloons such as these are available at <http://www.spaceneer.us/tracker>
- UK High Altitude Society <http://ukhas.org.uk/>
- Beginners Guide to Tracking using dl-fldigi http://ukhas.org.uk/guides:tracking_guide

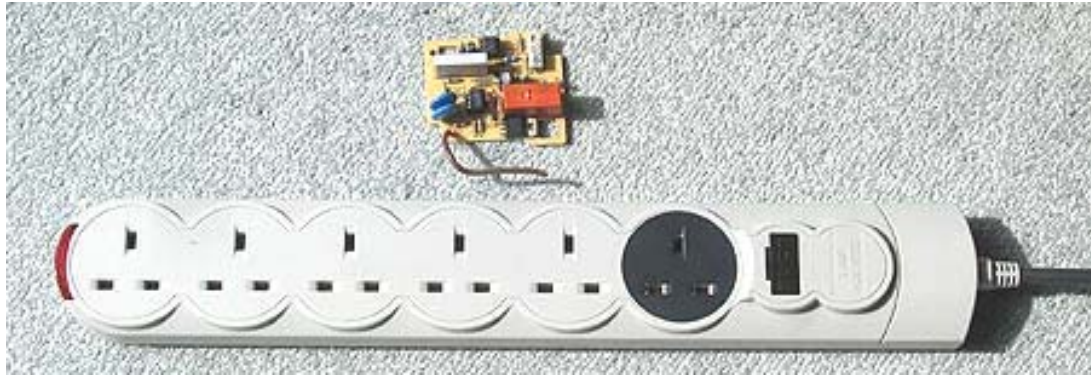
Trevor M5AKA

Mains Distribution Boards

All Radio Shacks have a selection of Mains Distribution Boards used to feed Receivers, Transmitters and associated equipment besides the obligatory computer.

Problem 1: For a number of years my computer had been fed from 6-way Dis Board which was designed to have Tower plugged into the first socket – when the computer was powered up the remaining 5 sockets became alive so feeding things like printers, scanners, audio amplifiers etc. When the computer was powered down the 5 auxiliary sockets switched off after 20 seconds or so – so saving a quiescent mains load.

This failed some years ago after a computer upgrade but was only taken apart this week – to my amazement the 5Amp Fuse only fed the first black coloured socket. The five auxiliary sockets “Live” terminals were always LIVE – the distribution board electronically switched the NEUTRAL to the 5 sockets. Against all IEE and common sense electrical rules.



The faulty Distribution Board which originally had “switched Neutrals” with the Fuse only to the black socket.

The other potential problem was the Triac was rated for only a couple of Amps and not mounted on a Heat Sink of any kind – this seriously under-rated the power capacity of the dis board – hence they are not liked by professionals in the industry. All electronics now taken off and all sockets strapped together to make a nice simple six-way distribution board.

Problem 2: My computer was fed using a collection of distribution boards but recently I spotted a very nice looking six-way board and fitted it instead of the previous collection – **big mistake!**

Every so often my computer would shut down on its own. Screens and hard drive went off, leaving the computer PSU on. First I had to get my computer running and fix a problem caused from downloading a Microsoft Update on Sunday, 14th April due to a conflict and Kaspersky Anti-Virus program – thanks Murray, G6JYB - it popped off a couple of times again.

My computer guru had left with everything running OK but came back two days later to see what had happened. In the mean-time he had read-up about my troubles – did I have an Uninterruptable Power Supply? Yes I did. I have a 1kW APC PSU unit. The waveform from this is electronically generated and it appears every so often it can produce a small spike which normally is absorbed by the load. However my new distribution board was Surge Protected and saw the spike as a problem and instantaneously shut down the computer.

Now running the computer from the Mains direct – OK.

Moral – Do NOT use a Surge Protected Distribution Board after a Uninterruptable Power Supply. Also the APC has four outputs – use each one – NOT just one feeding a distribution board.

John G8DET

Ken Hardy, M0XBK – SK

Just before publication of this Newsletter CARS were sorry to hear of the death of Ken Hardy, M0XBK. He was 71 and leaves a Wife, Son and three Brothers – CARS extend our condolences to them. Ken was a Marconi RO and a Member of the ROA and therefore keen on CW Morse.

His Widow has passed the following to CARS: -

My name is Jeong-Hee Hardy.

His funeral service has been arranged for the 1st of May at 10.30am at the Chelmsford Crematorium.

There will be a Reception afterwards at Hylands House at the Hylands Park. (Note – Entrance from the old A12 from the Ingatestone direction.)

Ken wasn't able to attend as many meeting of the "Radio Society" as he would have wanted due to his ill health but it was something that was always close to his heart.

If you could let the other members of the Radio Society know about the Funeral Service that would be much appreciated. It would be helpful if you could let me know if anyone might be interested in attending.

Mrs J Hardy, 17 Purcell Cole, Writtle, Chelmsford. CM1 3NB. Tel 01245 421064.

E-Mail is jeongheehardy@hotmail.com

And Finally:- John, G8DET edited this edition; Distributed most by email; Geoff KLV posted the remainder. Material by Trevor M5AKA; Steve G4ZUL; Gwyn G4FKH; Carl G3PEM; Murray G6JYB; Norman, M0FZW, Clive, G1EUC and Jeong-hee Hardy.

Closing date for items in the next Newsletter – Friday 24th May 2013.