



Chelmsford Amateur Radio Society

Established 1936

Affiliated to the RSGB Club Call Sign: G0MWT
President: Harry Heap G5HF Chairman: John Bowen G8DET
Treasurer: Brian Thwaites G3CVI Vice Chairman Martyn Medcalf G1EFL



Newsletter No 532

Web Address: www.g0mwt.org.uk

July 2010

This Month's Meeting – Tuesday, 6th July, 7.30pm at the Marconi Club.

"Constructors Competition" by CARS Members - and organised by Carl, G3PEM

It is that time of the year when CARS Member jam the Marconi Meeting Hall to demonstrate their efforts in the field of electronic and mechanical construction.

There are very few rules, but it should be electrically safe.

Please provide a sheet (piece) of paper with your name, Call-sign and the brief description of your entry. Other than that anything goes! In the late 1980s a purpose used House Brick got an Award!

CARS provides monetary Prizes, namely 1st Prize - £10; 2nd - £7; 3rd - £5 and... £5 to the person who is a "First Time Winner".

Question & Answer Session

Depending on the number of entries - on conclusion of the Constructors Competition CARS would like to invite Questions to our Panel of Experts.

- Tony, G4YTG - Aerials and Transmission Lines,
- Murray, G6JYB - Repeaters, Microwave & Computing,
- Carl, G3PEM - Operating Techniques.
- The Experts in the Audience when all else fails!

CARS will have its now famous Raffle with at least 10 prizes.

Dates for your Diary

Tues, 13, 20 & 27 th July	CARS CW Net starts at 8pm on Tues 13 th ; SSB Nets starts at 8.30pm (Local)
Wed, 14 th July	CARS Committee Meeting – Danbury Village Hall – 7.30pm. All welcome.
Sun 25 th July 10am-3pm	Colchester Rally at St Helena School Sheepen Road Colchester C03 3LE
Tuesday, 3 th August	CARS Meeting – "Digital TV and Radio - What's Next?" by Murray Niman, G6JYB.

To be/remain a Member of CARS, send a Cheque for £12 – 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.

Thanks to Geoff, G7KLV for sending the postal Newsletters – could it go by E-Mail?
Please inform Geoff, G7KLV by E-Mail of any changes to your call-sign, postal or E-Mail address, etc. E-Mail him on g7klv@g0mwt.org.uk Only by you sending Geoff your E-Mail address, can we ensure **WE** get it right!

Club Nets: Tuesdays 8.30pm: (2nd) 145.375: (3rd) GB3ER: (4th) 1.947/50: (5th) 28.375. All MHz +/- QRM.
Net Controller for July is Colin, G0TRM. Thanks to Patrick, M0XAP for doing it in June.

Last Months Meeting:- "Table Top Sale" by Colin Page, G0TRM.

Approaching a hundred members and visitors attended this years Tabletop sale - enjoying, viewing and in some cases buying a whole range of new and not so new electronic and other radio related items.

As usual we had visitors from far away who came to buy and others who came to sell and in some cases went home with more than they brought. A few faces present on the night, were also seen a day or two earlier at a nearby popular sales event in Hockley. Particularly the face of Mike Wheaton G4ZPE (Zipy) who had two tables full of goodies and had kindly donated items for our Raffle.

Many leaflets for the event had been produced for display in local libraries, bookshops and public notice boards, all containing the necessary information clearly displayed.

Club Member Les Barclay, G3HTF spoke of purchasing a radio magazine in Chelmsford and by sheer chance it happened to be one of those that had an information leaflet surreptitiously slipped in to it advertising the CARS Table Top Sale.

Many thanks to the high number of Club members who came along to sell or to buy or maybe to chat, contributing to a great atmosphere. Thanks too, to those who donated for sale, some very fine items to be sold for Club funds.

Thanks to Peter, G0KSJ for the excellent Raffle and Geoff, G7KLV in raising a good sum by selling tickets in his usual persuasive manner; also to Brian, G3CVI for holding the punters at bay until 7.30pm.

The evening, both socially and financially was once again deemed a success. Finally, my thanks to all who played any part in helping to make it a very worthwhile event and to those who contributed a small percentage of their takings to Club funds.

Colin G0TRM

NFD Report by Gwyn.

As usual the RSGB National Field Day was on the first weekend in June, which this year fell on the 5th and 6th. For a couple of months the various participants have been discussing how we were going to go about it this year. We were once more lucky to have the facilities of Sandford Mill offered so we set-up there again. Mark, M0IEO and I

arrived first to decide where his caravan, mast and the mess tent were to be sited. That work did not take too long because others turned up to help with this aspect.

By about 12:30 we had the aerial erected, Tony, G4YTG, used his bow to good effect and slung the only other aerial support we needed. Whilst the aerial erection team got that sorted out, the station itself was assembled. By about 13:00 we knew that the Club's new auto ATU (SG231) was going to serve us for 80m through 10m, however, we were going to need the Club's manual ATU (Palstar) for 160m.

All the time that preparations were being made, Mark was busy in the kitchen with everything else, so we had a good supply of really nice tea.

It was a pity that no one turned up in the afternoon for the proposed BBQ. (*Editors Note – Who wants 36 Beefburgers & Sausages?*)

The caravan facilities were just great, very comfortable and far superior to my other NFD experiences.

We duly started the contest on time at 15:00 GMT, and whilst radio conditions were not good, we did not do too badly, the scoring rate was below par but so were the radio conditions! At least we were able to get some extra points on 10m on the Saturday and Sunday afternoons because of the sporadic-E conditions. (There is another tale begging to be told!)

Because we did not have sufficient operators to work all night, the station was closed down about 00:30 and opened up again at 06:00, Mark got little sleep that night! We continued through the day but the going was very hard and slow. Our eventual score was 494 counting contacts, which netted up a score of 2108, not a patch on last year and not a patch on some Russian stations with over 2000 contacts. I suspect they were using high power with beam aerials.

Everyone seemed to enjoy the day, the weather was really kind to us on Saturday, until the night when we had thunderstorms, Sunday was OK, and at least we cleared away everything in the dry. All those who assisted or took part should be congratulated for a job well done.

Feedback so far has been very positive, so others enjoyed it as well. Let's see what happens next year.

Gwyn G4FKH

Dame Nellie Melba - Introduction

On 15th June 1920 the Australian soprano Dame Nellie Melba came to New Street, Chelmsford and by singing into a telephone microphone enhanced with a sound shield made from a cigar box made history by being the first celebrity to broadcast over the ether. She used a 15KWatt Transmitter with the call-sign "MZX" and an aerial strung between two 450 (136 metre) tall masts. Her broadcast was heard in America, Canada, Iran (Persia in those days) and the Eiffel Tower where it was recorded and issued as a wax recording.

CARS wished to commemorate this event and with excellent co-operation of Geoff, G7KLV Friend of the Museum and Peter Turrall, MBE Chairman of the Marconi Veterans Association an approach was made to Oaklands Museum. Nick Wickenden, Manager of the Museum was happy to assist and even offered the Education Room on the first floor – a really big room.

Peter also made contact with BAE Systems Insyte (Eastwood House) who were happy to allow Mark, M0IEO to locate his caravan at the rear of their premises, against the rear wall of New Street – only a few metres from where the Dame actually made her transmission 90 years previous.

Ofcom obliged by issuing a Special Event Call-sign "GB90MZX".

John G8DET.

Oaklands Museum

When it was mooted that CARS should run an anniversary station my XYL Pam and I performed a recce to assess the aerial situation. Since the Education Room we were offered was on the first floor, verticals were out so it had to be a wire using the only suitable tree away from the building. The only clear run was from a beautiful giant redwood which had a handy limb over which to hang a halyard. Two days before the event Geoff G7KLV and I passed the rope over the limb and left a weighted string hanging from the only window which could be opened for the inner end. You can imagine our anger when we realized this had been purloined at some time after we set it up.

The Museum Manager, Nick gave me every bit of help he could and when he opened the door to the window frame the rest was easy.

On Saturday, 12th June I found that the MFJ Tuner worked perfectly as usual and the end-fed aerial tuned up with repeatable settings.

BUT there was a nasty snag - site noise at about S9 or worse was received on all bands. Nick kindly switched off the Neon display over the stairway but the improvement, if any, hardly showed on the receiver. Hence we operated all day with all the noise reduction systems in the Pro III running. We managed 24 QSOs with several repeats asked to get loggable details. Unfortunately the output was just not suitable for loudspeaker presentation. The general noise in the room from visitors and the highly pulsed harsh sounds would not have mixed so the operators sat it out with headphones. Our received reports were excellent being always better than S8 so the aerial was working as "designed. It was the terrible local noise which spoiled the QSOs.

The band with lowest noise was 18MHz although 14MHz yielded the majority of contacts. We agreed with the other stations that the propagation was generally very poor but it was undoubtedly a sporadic E event with some deep fades at times.

So thanks to the team of CARS Members who turned up to operate, log and to host.

Brian, G3CVI.

While the GB90MZX Station was in action, Colin had a lovely display board with dozens of working Morse Keys on and a DVD player with the recording of Dame Nellie Melba relayed to a number of pairs of headphones for visitors to listen to.

CARS computer played a DVD provided by John Yates, G1UZD of the ISS contact with GB4FUN at the Scouts Jamboree in Hylands Park a few years before – this caused quite a stir as members of the public were not aware of Amateurs talking to the ISS.

The other end had a looped PowerPoint presentation of Marconi and Dame Nellie Melba.

Peter Turrall and Friends of the Museum each had a support table.

Unfortunately the Press Release was a week late due to the previous children's holiday so visitor's numbers were not as high as the room could accommodate, but those who turned up were impressed with what they saw and heard. Essex Chronicle had a good spread a week later.

New Street

On Tuesday, 15th June Mark parked his caravan at the rear of New Street and with the assistance of Gary Shadbolt and James Beatwell, 2E1GUA soon had the CARS Comet 250B aerial on air.

There was a very low noise level and soon contacts were being made all around Europe.

Visitors who were logged-in enjoyed visiting the station with a number making and receiving Greetings Messages.

A number of BAE Systems Insyte staff visited the station including Andy Emberton who arranged it, Ken Wilkinson who took some nice photographs, Dave Hampton, G3UHU who made some contacts.

All too soon it was time to pack-up and leave this historic site. Over 100 contacts were made and a special QSL Card is available.

Thanks to all those who made this event so successful.

John G8DET.

Dame Nellie Melba – Feedback - 1

Hi John, how nice it was to open today's Chronicle & see so many of my ex colleagues from Marconi New St in there. John Yates, G1UZD (needs no explanation), Chris Gardner (Contracts), Martyn Clarke (Studio engineer who I installed a studio with in Lagos Nigeria in 1976) Peter Turrall (Publicity Dept) and how coincidental/topical that on page25 in the "remember when" article for 1970 it mentions Dame Nellie and high power test - a depot I spent many hours in building various types of MF HF & TV transmitters. Congratulations to all concerned re the GB90MZX events.

73, Dick Baker, G4DJC.

Dame Nellie Melba Feedback – 2

Dear John,
I cannot tell you how thrilled I am to receive your E-Mail with the newspaper cuttings. I know Peter Turrall, Chris Gardener and Martyn Clarke who was a close colleague.

Kate and I have just been on a small ship, M/S Expedition (converted car ferry) on an "Adventure" holiday. (120 passengers). Joined at Falmouth then Channel Isles - Isles of Scilly - Isles up the West Coast of Ireland and Scotland including

Outer Hebrides - Orkneys and Shetlands - Scapa Flow too. Ended up at Oban - Too many to list!

Most are deserted and have relics going as far back at least 5000 years to the Neolithic Age (putting Stonehenge to shame!) Sorties ashore were made in Zodiac inflatables which were not too easy, especially if there was a swell running. Gave me a whole new respect for the IOTA teams getting their kit ashore!

Eric Lawley, G8ADX/G3MMX

Dame Nellie Melba Feedback – 3

Hi John your recent mail re Eric Lawley has got me thinking. In the 70's Eric worked in Studio contracts group. I met him while working on OB vans, along with Martyn Clarke there were a couple of licensed engineers, both Class A G3's: Owen Diplock & Ron Huntsman. Owen went on to Lecture at Colchester Institute & Ron went to MI in Herts.

I don't suppose for a minute that either were CARS Members but on the off chance they were do either names ring a bell? and any idea on their whereabouts?

73, Dick Baker, G4DJC

Dame Nellie Melba Feedback – 4

While acting as a host at Oaklands I was interviewed by Peter Sipple (ex BBC Essex) for a Podcast which is now released by Frequency Cast. Amateur Radio, DABs and PLT were discussed.

<http://www.frequencycast.co.uk/historyofradio.html#listen>

It is streamed via their online service, details of which can be found at
<http://www.frequencycast.co.uk/online.html>

They expect several thousand people listen in the coming few days.

The interview finishes with Colin signing off using Morse.

John G8DET

CQ-Local (2nd Time – Dame Nellie Melba)

I have created a new Web Site where you can listen to a small collection of recordings which may be of interest. There are also Radio related "You Tube" videos to view on the site.

There is a 'Radio Tuner' page with links to familiar or unusual stations, and a link to the current Web Radio service of 'Chelmsford Calling - easy listening and vintage music'. I hope you enjoy the website. The web address is: www.mt2radio.co.uk

Jim has very thoughtfully provided a 1980 recording on the story of Wireless and Marconi with quite a reference to Dame Nellie Melba. It runs for 49 minutes

<http://www.mt2radio.co.uk/#/listen-a/4540643116>

Jim Salmon, 2E0RMI

July Radio Sport (Contests) All in UTC.

3/4 July - VHF NFD - 24hrs

05 July - RSGB Club - CW- 20:00 to 21:30 local

10/11 July - IARU HF Championships – 24hrs

14 July - RSGB Club - SSB - 20:00 to 21:30 local

18 July - 70MHz Trophy - !0:00 to 16:00 Hours

22 July - RSGB Club - DATA - 20:00 to 21:30 local

24/25 July - RSGB IOTA - 24 hrs

For further information please email Steve G4ZUL
contests2010@g0mwt.org.uk

Steve, G4ZUL

Radio Path Predictions – July.

Gwyn, G4FKH was requested at the November Meeting to provide an "Only to CARS" Propagation Prediction. Thank you Gwyn.

Asia: Dhahran - around 22:00 on 7MHz for 80 percent of days, with poor signals.

Oceania: Sydney - around 20:00 on 7.0MHz for 56 percent of days, with poor signals.

Africa: Johannesburg - around 18:00 on 10.1MHz for 82 percent of days, with poor signals.

S. America: Rio de Janeiro - around 22:00 on 10.1MHz for 83 percent of days, with poor signals.

N. America: Saskatoon - around 22:00 on 14.0MHz for 74 percent of days, with poor signals.

Comments are welcome. Please E-Mail Gwyn at:
[g4fkh "AT" btinternet.com](mailto:g4fkh@btinternet.com)

Gwyn, G4FKH

What's wrong with the sun?

A *New Scientist* magazine article discusses the unexpectedly low level of sunspots in the last couple of years. The article says:

William Livingston at the National Solar Observatory in Tucson, Arizona, has been measuring the strength of the magnetic fields which puncture the sun's surface and cause the

spots to develop. Last year, he and colleague Matt Penn pointed out that the average strength of sunspot magnetic fields has been sliding dramatically since 1995.

If the trend continues, in just five years the field will have slipped below the threshold magnetic field needed for sunspots to form.

Read the full New Scientist article at

<http://www.newscientist.com/article/mg20627640.800-whats-wrong-with-the-sun.html>

Trevor, M5AKA.

Gwyn, G4FKH makes the comment that more data is required before gloom descends!

A RADAR Exhibition (2nd Time – A Visit?)

Thanks to the efforts of Robert Watson Watt, Arnold Wilkins, Taffy Bowen, and their dedicated teams of scientists and engineers who had been working at Bawdsey Manor from 1936 until the outbreak of war, Britain had an invisible secret weapon. - Radar.

Bawdsey Manor

Members of CARS can arrange to visit Bawdsey Manor on selected dates outside public "Open Dates".

<http://www.bawdseyradar.org.uk/news1.htm>

Entry would be strictly limited to people who have booked. A fee of £22.50 or £27.50 (with Buffet Lunch) is required (plus booking fee).

Is there any interest in CARS Members in visiting this RADAR Establishment?

Please contact the Editor or any Committee Member.

John G8DET.

IARU: Powerline Communications

Powerline Communications (PLC, PLT, BPL) can wreak havoc to radio reception. An International Amateur Radio Union (IARU) report to the ITU-R states the minimum level of protection that radio communications need from these polluting systems.

The ARRL report that Working Parties 1A and 1B of the International Telecommunication Union's (ITU) Study Group 1 will meet in Geneva from June 21-28.

A major item of discussion will be protection of radio services from interference from Broadband over Powerline (BPL), called Power Line Communications (PLC or PLT) in Europe.

The International Amateur Radio Union (IARU) has already contributed to the ITU-R report SM2158, Impact of Powerline Telecommunication Systems on Radiocommunication Systems Operating in the LF, MF, HF and VHF bands below 80 MHz. This report has the acceptable criteria for degradation of the HF radio noise floor caused by BPL defined as being 0.5dB. Work in WP1A will concentrate on the protection of radio services from the effects of BPL in range from 80-200MHz.

The IARU delegate to Study Group 1 and its working parties is **Peter Chadwick, G3RZP**. One item Peter has for these meetings is a report on the effects of intermodulation in power supplies causing the amateur band frequency notches in the BPL spectrum to be degraded. This report has been prepared from the work by **Richard Marshall, G3SBA**, published in the RSGB's member journal RadCom, and also points out the difficulty such effects could have on the BPL system itself.

Peter Chadwick will also present protection criteria for those amateur stations operating in the 2m band. Peter along with **Ian White, GM3SEK**, helped prepare the criteria, said it is considered that the Amateur and Amateur Satellite Services require protection such that BPL interference does not exceed -45dBmV/m in the main lobe of the antenna, with a separation between antenna and the BPL installation being at least 10 meters.

Peter said that there are a number of non-amateur services that could suffer interference from BPL or its harmonics, such as applications including social alarms for the elderly, pagers and medical implant telemetry, as well as broadcast services, and when aggregation of radiation is concerned, aircraft navigation and communications: "When the differences in range between BPL and mains leads and the social alarms and medical implant 'base' stations and the like are taken into account, the acceptable levels of radiation to protect the Amateur Service are of the same order as those needed to protect these other services."
Story courtesy of ARRL.

The report is at
<http://www.itu.int/publ/R-REP-SM.2158-2009/en>

Powerline Communications Video
<http://tinyurl.com/PowerLineVideo>

Editors Note. This is a very good Link which demonstrated PLT Interference.

Trevor, M5AKA.

Broadcast TV/Radio Reception Interference

From 30 June 2010 the BBC will be taking the lead role for investigating complaints of interference to your radio and television (only) from Ofcom.

You can find the BBC's diagnostic webform at the following address:

<https://faq.external.bbc.co.uk/templates/bbcfags/emailemailstatic/interferencePage>

Editors note. The new procedure is for Broadcast TV & Radio Interference only. The Web Site also states they will not attend unless you have an outside aerial. Ofcom will still deal with Interference to Amateur Services.

Trevor M5AKA

Ofcom Field Staff Video

Ofcom have produced a short video to demonstrate the work of their dedicated, hard working and under-resourced field staff.

Watch 'Ofcom Field Operations' at

<http://www.flickeringwall.com/work/30/3/en>

Trevor M5AKA

Chelmsford Intermediate Exam

On Thursday 3rd June CARS held an Intermediate Examination. It was the culmination of an 11 week course during which the candidates enjoyed a good mix of tutorial and practical work.

The conversion rate from Foundation to those taking the Intermediate is usually high within CARS, but in this instance it was 100%. Even better all but one who dropped, out of the course due to family reasons, passed the exam.

Many have stated their interest in the Advanced Course in the latter part of the year. Key contributors to success have been the team/class ethos, CARS Slide sets, a structured set of practicals and a stretching mock exam. The PowerPoint slides used for this and other courses can be downloaded from the club website.

To find out more about CARS courses contact Clive G1EUC

Tel: 01245-224577

Mob: 07860-418835

Email: training2010@g0mwt.org.uk

Web: <http://www.g0mwt.org.uk/training/>

Sudbury and District Radio Amateurs (SAnDRA - G7SRA) Meeting.

Sudbury and District Radio Amateurs (SAnDRA) are proud to announce that they have 3 members of the Cambridge - Hams (Gavin M1BXF, Rob M0VFC and Mark M0MJH) coming along to give them a talk on the second Wednesday of July (14th July) about their adventures on the Isle of Harris (EU010). We would like to invite your club members to come along to hear the ups and downs, the highs and the lows and the tales of custard that await us.

SAnDRA meets at 730pm (8pm start) in the old school at the junction of Wells Hall Road and Head Lane in Great Cornard near Sudbury. Here is a link to Multimaps showing you the location: <http://www.multimap.com/s/BArPubKw>

As many of your members probably worked them, (they were a rather good signal down into this part of the world), we thought that it was only fair that we shared this opportunity to hear about it with you all. Please could you reply directly to Mark M0MJH if you are coming.

Mark Hickford m0mjh@yahoo.co.uk

RadCom - GB2CW & Danbury

RadCom for July has a very nice article by Roger Cooke, G3LDI on GB2CW featuring CARS Member, Andy Kersey, G0IBN from Tollesbury (Lightship fame). It starts with a nice photograph of Andy at home in his shack and covers getting a Morse Proficiency certificate

Elsewhere in Radcom, an article on Exam quality drew on support from CARS when the editor asked for pictures of exam practice and inspection at the Danbury classes

Murray, G6JYB

Wanted

A service manual for a Boonton RF Millivoltmeter Type 92B.

Ken G0OSI

GB2CMS - Maldon

Did anyone work Bill operating GB2CMS from the Military Museum in Station Road, Maldon (opposite Tesco)? - over June 26/27 weekend.

They had a portable tower but found conditions and the location poor.

I worked them from my home QTH and from the top of St John's Church Tower (375ft ASL) using a hand-held FT290R with 2.5 Watts on 2m.

They were operating to support National Armed Forces Day.

Bill told me that the Military Museum will accept private parties of between 12 and 20 or so for a donation of £60. Is there any interest in visiting this Museum? If so, please contact a Committee Member.

John G8DET.

Silent Key Report

I have just received the following email from Cornwall, from Norman, G4USB, President of the Cornish Radio Amateur Club (CRAC).

"We have some rather sad news to impart to you all. In the last few years you will all have been dealing with Geoff Chance, M0GRC where Marconi Day matters are concerned. Unfortunately Geoff passed away recently having lost his battle with illness.

Geoff will be sadly missed by all of at the CRAC. A tireless Committee member who was always there to lend a hand and a good friend too"

Geoff had recently arranged that CARS could operate GB5HF and GX0MWT for this years IMD on 24th April, 2010.

I have passed on the condolences from CARS to CRAC.

Please note that IMD for 2011 is now set as Saturday, 30th April due to the timing of the Holiday Period that year.

John G8DET

And Finally:-

John G8DET edited this edition. Material by; Trevor, M5AKA; Steve, G4ZUL; Gwyn, G4FKH; Jim Salmon, 2E0RMI, Eric, G3MMX; Dick, G4DJC; Brian, G3CVI; Murray, G6JYB and Ken, G0OSI.

Items for the next Newsletter, including your experiences with your latest rig or antenna, tips on working DX, or your latest project, to be sent to the editor@g0mwt.org.uk by Saturday, 24th July