



# Chelmsford Amateur Radio Society

Established 1936

Affiliated to the RSGB Club Call Sign: G0MWT  
President: Carl Thomson, G3PEM Chairman: John Bowen G8DET  
Treasurer: Brian Thwaites G3CVI Vice Chairman Martyn Medcalf G1EFL



Newsletter No 543

Web Address: [www.g0mwt.org.uk](http://www.g0mwt.org.uk)

June 2011

## This Month's Meeting – Tuesday, 7<sup>th</sup> June, 7.30pm at the Marconi Club “G5RV Centenary Evening by CARS Members”

Louis Varney was born in North London on 9<sup>th</sup> June 1911 which makes it the most famous Radio Amateur's Centenary this year. He died 28<sup>th</sup> June 2000 when he was 89 years old.

Besides having 55 Callsigns and operating from 75 Countries he will be remembered for designing the G5RV Aerial and the Elizabethan Transmitter.

Harry Heap, G5HF, CARS Past President and now a Life Fellow knew Louis in the early days of his association with Chelmsford and we are pleased he will be able to tell us some of the many stories only known to him.

CARS has been fortunate to be granted use of a video disk from the Norfolk Amateur Radio Club when they happened to have a video camera to film a lecture he gave in 1990. We propose playing interesting excerpts from this video.

An interesting evening is expected. See page 6 for YOUR involvement.

CARS famous Raffle will have over 10 Prizes - only a £1 per ticket.

As a Bonus the Raffle will include a copy of Tim Wander's new book “2MT – Writtle” – “Birth of British Broadcasting” which retails @ £18.75 on-line.

### Fred Wright – G6FXM – Silent Key

Stop Press - Fred passed away on Thursday, 19<sup>th</sup> May 2011 in Broomfield Hospital.  
Details will be published on CARS Web Site and Nets as known.

### Dates for your Diary

Sunday, 29 <sup>th</sup> May	CARS at W&S Open Day, Hockley 10 to 4pm with the RSGB, ERG & Essex CW Club
Thursday, 9 <sup>th</sup> June	CARS – Operating GB5RVA (Anniversary) from the Marconi Hut at Sandford Mill.
Tues 14, 21 & 28 June	CARS CW Net starts at 8pm on Tues 12 <sup>th</sup> ; FM & SSB Nets start at 8.30pm (Local)
Wed, 15 <sup>th</sup> June	CARS Committee Meeting – Danbury Village Hall – 7.30pm. All welcome.
Tues 5 <sup>th</sup> July	CARS Meeting – Quality Table Top Sale by Colin, G0TRM.
Sunday Afternoons in August	CARS Operating from the Marconi Hut, Sandford Mill – GB100MWT, CW & SSB. Open to the Public, 2 to 5pm, Free to Enter and to Park.

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 2<sup>nd</sup> 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 callsign, postal or eMail address, etc. Email him on [g7klv@g0mwt.org.uk](mailto: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) GB3DA: (3rd) GB3ER: (4th) 1.947/50: (5th) 28.375. All MHz +/- QRM.  
**Net Controller for June is Patrick, M0XAP. Thanks to Mark M0IEO who did it mainly in May.**

## Last Month's Meeting:- "Astronomy" by Bruce Sexton, G1JJS

The Club would like to thank Bruce from the Castle Point Astronomy Club (<http://www.cpac.org.uk>) for giving his informative talk at short notice. The main topic of Bruce's talk was Astronomical Imaging based on his own experiences using a variety of astronomical equipment.

The first part of the talk was to demonstrate the operation of a "go-to" telescope which Bruce brought to the meeting. This was a Meade EXT-90 telescope which automatically orientates itself with the aid of two bright stars so that any object in the night sky can be viewed by selecting it from a list in the telescope hand controller. Bruce explained that this type of telescope enables many objects such as the planets, nebulae and galaxies to be viewed in a relatively short period of time.



Bruce then explained the basic principles of astronomical imaging. A standard DSLR camera and lens on a tripod can be used to image the constellations – however exposures longer than about 15 seconds will lead to the stars becoming blurred. However, attaching a DSLR on a mount that tracks the movements of the stars, such as a guided telescope, can lead to longer exposures and hence fainter objects being visible. A DSLR camera (without a lens) can also be attached to a port on the telescope so that the telescope acts as a lens. This enables small objects such as nebulae or galaxies to be imaged with exposures times that can total many hours or even several nights. This is achieved by taking many images that are later combined on the computer. See photograph above which was taken by Bruce.

Another technique is to attach a webcam to the telescope port are ideal for the imaging of the Moon and planets. Bruce uses the Philips USB SPC880 / SPC900 webcam. The webcam takes many frames of the object (a few thousand over a period of a few minutes). Software such as the free Registax (<http://www.astronomie.be/registax>) examines each of the frames, selects the best quality images and then combines these to make a final image. This technique is ideal for removing the effects of atmospheric turbulence (seeing) – Bruce showed a good example of poor seeing from a movie of craters on the Moon. The final technique described was CCD cameras which are also used with a telescope but are much more sensitive to light than a webcam (and much more expensive).

For any of these imaging techniques (and for visual observing) Bruce explained that it is important that the telescope be left outside to cool down for at least an hour before being used. This is to reduce any thermal effects from the telescope not being at the same temperature as its surroundings. Next Bruce showed some example images of objects including the International Space Station (ISS), the Moon, Mars, Jupiter & Saturn, the Pleiades star cluster and nebula, the Horse Head nebula in Orion, the Dumbbell nebula (M27), the Andromeda galaxy (M31), the Whirlpool galaxy (M51) and galaxies M81 & M82 located in the constellation of the Great Bear.

Finally Bruce described the free Virtual Moon Atlas (<http://www.ap-i.net/avl/en/start>) for giving details of the Moon's phases & craters and the Starry Night Bundle for a general planetarium program. [Another free good planetarium program is Stellarium, <http://www.stellarium.org>]. After the break Bruce gave a few tips on safe solar observing and described the basic types of telescope that are available to the amateur astronomer such as refracting, reflecting (e.g. Dobsonian) or hybrids such as the Schmidt Cassegrain or Maksutov.

**Peter, M0ZBU & Richard, M0SBU**

Thank you Peter and Richard very much for the Report – both are active CARS Members.

## **International Marconi Day at Sandford Mill, Science & Industry Museum**

Just as the Windsors and the Middletons were hoping for a fine sunny day on the 29th so too were we at Sandford Mill for the 30th and just as theirs was a most successful day, so too was ours! Sandford Mill is a truly delightful spot on a warm sunny day, celebrating Guglielmo Marconi's birthday, when we played host to just short of 600 visitors young and old, aided by great publicity on the local radio and newspapers.

Although advertised to start at 10am, there was a constant stream of visitors, some arriving as early as 9:30, but all were made welcome by the delightfully informal atmosphere that always prevails at Sandford Mill. This is encouraged, as always, by Geoff Bowles and his team, Trish Robinson, Val Hurley, Ian Walker and David Harmston supported by Friends Jim Fox, David Goodridge, Gordon Iles, Jim Selby, Peter Watkins and Hilton Newson and myself.

We offered a number of attractions this year. We were delighted to welcome Tim Wander, G6GUX, author of the latest edition of his book, describing the momentous events in the early 1920's when the first wireless broadcasts were made from Writtle in the Writtle Hut. He was booked to give just two talks but so popular they proved to be that he slipped in more to meet the demand throughout the day.

Our second attraction featured the Bill Waters Collection. Bill, a resident of Pendeen, near Penzance, was a sea going Radio Officer who later became a Radio Operator at the GPO Lands End Radio station, the station covering the busy south western approaches. Whilst there he became friendly with Frank Kelley, Officer in Charge, who later retired to Chelmsford and was a visitor to Sandford Mill. Bill, as well as being a Radio Amateur, was also an avid collector of Marconi maritime radio equipment, which was later displayed in a small private museum. There arose the problem of what to do with the collection and Bill decided to donate it to Sandford Mill. There is no doubt that it was due to Frank's influence that we have inherited the bulk of Bill's magnificent collection of Marconi equipment dating back to around 1900. It is with sadness that we learnt that Bill passed away quite recently but his spirit lives on in our displays.

What to do with the collection and how to display it to best advantage? It was Peter Watkins, FCM and CARS member who suggested a series of typical displays of ships radio rooms. The first two, 1900 and 1920, exhibiting some of the very earliest equipment, were on show to the public for the first time. Two further displays, the 1930's and the 1940's are the next major projects for the hard working Friend's Monday Morning gang.

Members of CARS manned three Amateur Radio stations. The SSB station on 80m, overseen by Brian Thwaites G3CVI, in the Writtle Hut made over a hundred contacts to many IMD Award stations including the organisers of IMD at historic Poldhu. The second station, Morse only, was supervised by Gwyn Williams G4FKH and made 270 contacts World wide. Of particular interest was an AM station manned by Peter Bridgeman G3SUY who was using his beautifully renovated TR1154/55, the famous Marconi aircraft transmitter /receiver designed at Writtle by, amongst others, Christopher Cockerell, later of Hovercraft fame. Also from CARS, Colin Page G0TRM was displaying and operating the hugely popular automatic Morse sending and receiving equipment, from his own and the Sandford Mill collections.

Throughout the day light refreshments were provided by FCM members Annette and Mike Fawcett assisted by Kathleen Selby and Jane Allnutt. All International Days have been good days but without doubt this was the best so far!

## **Geoff G7KLV**

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## **Essex CW Club Win Region 12 Award**

The Essex CW Club won this year's RSGB Region 12 Club of the Year Award and will collect their trophy at the Waters & Stanton open day on Sunday, 29 May. W&S sponsor both the Region 12 trophy and the National Trophy scheme.

The CW Club is for anyone with a passion for Morse Code. If you are already proficient in CW, then you can join as a Full Member. If you aspire to learn CW and become proficient in using it on-air, then please join as an Associate Member. There are plenty of people in the club who are able to help you learn and progress with your CW skills and offer advice in how to make the most progress with your learning.

Further information is at: - <http://www.essexcw.org.uk/>

## **Trevor M5AKA**

## June Radio Sport (Contests) All in BST (Local times)

**4/5 June** – RSGB NFD – CW – 24 hrs

**15 June** – RSGB Club – CW – 20:00 to 21:30

**18/19 June** – JARL all Asia DX – CW – 48 hrs

**6 June** – RSGB Club – Data – 20:00 to 21:30

**18/19 June** – 50MHz Trophy – 24 hrs

**23 June** – RSGB Club – SSB – 20:00 to 21:30

For further information please email Steve G4ZUL [contests2011@g0mwt.org.uk](mailto:contests2011@g0mwt.org.uk)

**Steve, G4ZUL**

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### CW Presentations at the CARS May Meeting

President Carl, G3PEM presented the Essex CW Club's Morse Certificate to Oliver, M0WAG having passed the RSGB 5wpm Test and to Colin, M1OCN having passed the RSGB 12wpm Test - achievements they should be proud of.

Essex CW Club Chairman, Steve, G4ZUL then presented Colin, M1OCN with the beautifully restored Morse Key presented by the family of the late Peter, G4OAD and now referred to as the "G4OAD Memorial Key" as "The most promising CW Candidate of 2011". Colin will keep the Memorial Key for a year and the Certificate for his shack wall to remind him of the achievement.

### Report by Andrew, G0IBN

Thanks to Andy, G0IBN for the above words and the tutoring that made the presentation possible.

Why not join the CW Class, "Beginners and Improvers" welcome on Thursday evenings in Danbury Village Hall.

See [www.essexcw.org.uk](http://www.essexcw.org.uk)

**John G8DET**

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### CARS Propagation Forecast for June – Just for CARS

Prediction engines rely upon smoothed Sunspot Numbers and not day-to-day variations. That is why predictions carry the caveat that they are only correct for 50% of days! Gwyn tries to make his better!

<b>Asia: Dhahran</b>	around 20:00 on 18.1MHz for 84 percent of days, with poor signals.
<b>Oceania: Sydney</b>	around 20:00 on 7.0MHz for 62 percent of days, with poor signals.
<b>Africa: Johannesburg</b>	around 20:00 on 10.1MHz for 81 percent of days, with poor signals.
<b>S. America: Rio de Janeiro</b>	around 22:00 on 10.1MHz for 83 percent of days, with poor signals.
<b>N. America: Saskatoon</b>	around 22:00 on 14.0MHz for 71 percent of days, with poor signals.

**Gwyn, G4FKH**

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### CARS Second Tuesday Net - VHF

As advertised on the CARS website and in the CARS newsletter, our monthly 2m Net was held on Tuesday 10<sup>th</sup> May using the Chelmsford 2m Repeater GB3DA. There was a good attendance on the Net with a total of 14 stations calling in to the Net controller, M0IEO. Stations worked were M0BQC David, G7WCM Keith, G0RTH Alan, M0XAP Patrick, G3EDM Geoff, G1EFL Martyn, G4MDB Bob, M6LMP Luke, 2E0EKF Selim, G1FOA Peter, G8DET John, G3VSI Nick, G8JLM/m Pat and G0RNU Neil.

Subjects covered included the upcoming Windmills on the Air weekend, bee keeping, gardening, setting up a radio to operate duplex on GB3DA, the CARS June meeting about G5RV and the glorious weather we have been having. Timeouts were surprisingly few given that GB3DA has such a short over timing.

All in all, I think the Net was a great success with the number of people taking part and the comments made on air that signals were all clear and of good quality. Coverage area was from Canvey Island out to Maldon and beyond. It was my first attempt at being the Net Controller for CARS so I hope that I have kept up the fine reputation that has been set by CARS for interesting Net nights.

Resulting from this successful Net, CARS will in the future use GB3DA for the second Tuesday Net in the month. The third Net is using UHF GB3ER starting at 8.30pm local – all are welcome to join.

**Mark, M0IEO**

## **New US Beacon**

70MHz is not an amateur band in the USA, but European stations may try to listen for a new 4 metre band experimental Radio Science E-skip Trans-Atlantic propagation beacon from the East Coast of the US. Its operating frequency is 70.005MHz. WE9XUP is located at FM07fm and transmits CW. The beacon is scheduled to run 24 hours a day until 1 September. Reports are welcome via e-mail to WA1ZMS@ARRL.NET.

## **Trevor, M5AKA**

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### **Send Your Callsign to Mars**

NASA are collecting names and or callsign to be put on a microchip that'll be onboard the nuclear powered Mars Science Laboratory Rover heading to Mars in the Autumn of 2011. The Rover has an unusual connection with radio - it has special Morse Code indentations on its wheels that will spell out the initials JPL in Morse as it travels around Mars. JPL stands for Jet Propulsion Laboratory, builders of the Rover.

Put your name/callsign on Mars at: - <http://marsparticipate.jpl.nasa.gov/msl/participate/sendyourname/>  
Mars Science Laboratory: - <http://marsparticipate.jpl.nasa.gov/msl/>  
New Mars rover to feature Morse Code: - <http://www.arrl.org/news/new-mars-rover-to-feature-morse-code>  
Wiki entry: [http://en.wikipedia.org/wiki/Mars\\_Science\\_Laboratory](http://en.wikipedia.org/wiki/Mars_Science_Laboratory)

## **Trevor M5AKA**

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### **Soldering is easy - the comic book**

This comic book aims to encourage more people to get soldering and building and repairing equipment. The authors say: "*Soldering is easy, and with this comic we hope to show just how easy. Please use this to learn how to solder, to teach others, or as material for workshops and hackerspaces!*"

The PDF can be downloaded from Andie Nordgren's website at <http://tinyurl.com/SolderingIsEasy>  
Andie used to live and tinker at the Shoreditch Hacker House in London. <http://theshh.org/>  
London Hackspace: - <http://london.hackspace.org.uk/>

## **Trevor, M5AKA**

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### **CARS Operating from Stock Windmill – 14/15th May WITH GB5SM**

This is our fourth successive year of operating from this site. The address is Stock Windmill, Mill Lane, Stock near Ingatestone, Essex, CM4 9RY. WAB: TQ69. The usual gang less John MMQ were on site by 10.00 am. The caravan's awning, the Club's CHB 250 Collinear for HF and the V2000 VHF antenna were erected. The 16deg.C temp was alright with enough wind to keep insects off, and only one short rain shower the whole time. The earthing system was reconnected, and we were transmitting by lunchtime.

We had several club visitors; James 2E1GUA stayed longest and Adrian and Mavis from Wheathampstead again took the distance record. We made the acquaintance of the new owners in 8 Mill Lane - and their water tap - next to us. The new County Council Officer who replaced Geoff Woods was helpful too. Geoff was our very first County Council helper, and sadly died very unexpectedly of a coronary thrombosis last year.

Fortified by Belinda's excellent Shepherds' Pie we were at it until 10.00pm local time, and started before 09.00 local time on Sunday after a good night's kip. An elderly gent in a local house complained of TVI, but a home-made coax+ ferrite blocker solved that - he gave it back afterwards, too! Mark also provided a very large English Breakfast, which kept us going all day. Tea and coffee also appeared regularly throughout the weekend.

The HF TxRx was an old FT107 which allowed us to work into Guelph, Canada and also into Orenburg, UA9 territory. I briefly tried my old FT101Z, but the FT107 was easier....! We otherwise seemed to be following the contemporaneous Eurovision Song Contest with our QSO call-signs! Missed Azerbaijan, sadly. We worked about 75 stations in all. The HF side scored 8 "Mills" from the UK. The 2m side scored more, and from a radius of approx. 30 miles we think, making a total of 20+"Mills". Our "Mill" being open on the Sunday attracted fewer than usual visitors, but it was nice to renew acquaintances.

John G8DET helped us strike camp, and we were offsite by 6.00 pm as promised.

## **Patrick, M0XAP, Billericay**

## President Jottings - June

We need you to think about nominations for Amateur of the Year Award. The next major event will be the Constructors Competition scheduled for August – get your soldering irons out and finish that project

**Carl, G3PEM. President**

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### CARS Training

The next Course in Danbury will be a Foundation Course from Sept-1<sup>st</sup> to Oct-6<sup>th</sup> for which Clive G1EUC would appreciate names and details of those interested. Tel: 01245- 224577. <http://www.g0mwt.org.uk/training/>

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### House of Commons and PLT

On Wednesday, 18<sup>th</sup> May, Parliament debated polluting Powerline Technology Devices (PLT). Mark Lancaster MP for Milton Keynes North delivered a superb speech in defence of the radio spectrum.

He raised the widespread concerns that PLT devices are jeopardising the efficiency of radio communications systems. He said "*in previous centuries we have fought smog and campaigns for clean air, now we are seeing a battle for clean airwaves*". He pointed out that the Radio Society of Great Britain (RSGB) has been raising its concerns about powerline devices for 10 years.

Debate video: <http://tinyurl.com/PLTdebateBBC> - Hansard transcript: <http://tinyurl.com/PLThansard>

UKQRM are a group fighting this interference <http://groups.yahoo.com/group/UKQRM/>

**Trevor, M5AKA**

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### East Suffolk Wireless Revival - Ipswich Radio Rally - Sunday, 12th June 2011.

From 9.30 - Early Afternoon. The Orwell Crossing Lorry Park, A14 Eastbound, Nacton, Ipswich. IP10 0DD. Car Boot Sale, Bring & Buy Sale, Special Interest Radio Groups, Local Radio Clubs, RSGB Bookstall, Waters & Stanton. Excellent Food and Facilities, Easy Parking, GB4SWR - Talk-in on 145.550MHz. Admission £1.00 Car Boot spaces available for £10.00  
For further details visit: - [www.eswr.org.uk](http://www.eswr.org.uk)

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### June Meeting - G5RV Evening and Centenary Event

To commemorate the Birthday of the late Louis Varney, G5RV CARS will be talking about the famous Aerial Louis developed and is used Worldwide on Tuesday, 7<sup>th</sup> June – do YOU have or have used a G5RV Aerial – have YOU a story to tell. Do you have a photo of one? G8DET is looking for one or maybe two photos and two to three minutes on how you get on with it. Do you use a Balun? Where is your matching unit located? What Bands do you use? Please contact a member of the Committee or the Editor if you can assist.

On Thursday, 9<sup>th</sup> June CARS will be at Sandford Mill to commemorate Louis's Birthday using GB5RVA. The CW Station co-ordinated by Gwyn, G4FKH will use the 14MHz Aerial built and installed by Tony, G4YTG and will be located in the "Piano Room" in the Marconi Hut. Brian, G3CVI will be operating SSB from the usual Marconi Hut room and using the 80m Aerial.

Operators and Loggers are requested to contact the two co-ordinators. Operations will be from 9 to 5pm. Unfortunately only CARS Members, Marconi Veterans and family are allowed for this event.

**John G8DET**

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### And Finally:-

John G8DET edited this edition. Material by Trevor, M5AKA; Steve, G4ZUL; Gwyn, G4FKH; Carl G3PEM; Patrick M0XAP; Andy G0IBN; Geoff, G7KLV; Peter, M0ZBU; Richard, M0SBU and Mark, M0IEO.

Closing date for the next Newsletter – Sat 18<sup>th</sup> June.