



# 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 519

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

June 2009

This Month's Meeting – Tuesday, 2<sup>nd</sup> June. 7.30pm at the Marconi Club.

## Quality Table Top Sale By Colin Page, G0TRM

Once upon a time CARS used to have a "JUNK SALE" but this was wound up when it was realised that most Chelmsford Radio Amateurs all had a garage full of Junk and their XYL's had forbidden them to import anything more! (What is a Garage for? - Answer:- Storage space when you cannot get anything more in the roof!).

To provide a more useful sale the "**Quality Table Top Sale**" was started a few years ago and this proves to be more attractive. It is surprising what is sold - (computer CRT Monitors and large CRT TVs are NOT popular!) - most other items do change hands.

Have a good look at your shack - what do you want and what can you sell.

**All good condition Amateur, Audio, Electronic, Electrical, Photographic, Computer and associated equipment may be offered for sale.**

If in doubt, ask Colin on 01245 223835 (but only during Office hours, please) or E-Mail him at [thepages@ukgateway.net](mailto:thepages@ukgateway.net)

CARS now famous Raffle will have its usual table top of Raffle Prizes - only £1 per Ticket

### Dates for your Diary

Sat/Sun, 6/7 <sup>th</sup> June	CARS at Sandford Mill for National Field Day (CW) Sorry NOT open to the Public.
Tue 9 <sup>th</sup> June	CARS VHF Net on 145.375MHz at 8.30pm, local. See CARS Web Site.
Wed 19 <sup>th</sup> June	CARS Committee Meeting in Danbury Village Hall at 7.30pm – All Members welcome
Tues 7 <sup>th</sup> July	CARS Meeting – "Constructors Competition" by Carl Thomson, G3PEM.

To become 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 call-sign, postal or E-Mail address, etc. E-Mail him on [g7klv@g0mwt.org.uk](mailto:g7klv@g0mwt.org.uk) Thanks. Only by you sending Geoff your E-Mail address, can we ensure **WE** get it correct!

Club Nets: Tuesdays 8-30pm: (2nd) 145.375: (3rd) 28.375: (4th) 1.947: (5th) 145.375. All +/- QRM. **Net Controllers for June is TBA.** Thanks to David, M0BQC for doing it in May.

## **Last Months Meeting:- “Honeybees, Amateur Radio and Radar” By Geoffrey Mills, G3EDM.**

Chairman John welcomed CARS Members and visitors including Adrian M0ABY and Mavis G0XBC from Wheathampstead.

In introducing his presentation, Geoff said he had been a Beekeeper for 50 years and had got into Beekeeping through a SWL friend to improve apple production. Bees help by pollinating the blossom, so ensuring the fruit sets.

Everyone must have heard or seen on TV the problems facing the Honeybee at present but one must remember that in 1904 there was the “Isle of Wight Disease” which decimated the bee population. Solutions were found and with bees imported from Holland, beekeeping thrived in England. They imported the bees in Skeps – a special woven straw top hat in which the bees built their home on wax sheets, maybe 5 or so. At the end of the year the bees were killed by burning Sulphur or by driving them out to obtain the honey either directly as comb or squeezed to get the liquid honey. The nearest we get to this today is “Cut honey” – Geoff showed a sample of this.

Years ago the main aim was to obtain Wax for candles in the Monasteries – paraffin and fat candles produce a black sticky smoke which could damage the pages of script the Monks were working on. Wax Candles produce a clean and pleasant aromatic vapour when burnt.

The colony is made up of a Queen and at this time of the year with 500 Drones (Males) with 20,000 Workers which are females that increase to 60,000 in summer.

Geoff then showed a series of photographs that showed the Honey Bee, Wasp and Flies, which looked like Bees. Bees have their Antenna at the front – “I have an Aerial not an Antenna”. Years ago we had 26 varieties of Bumble Bee but this has now reduced. There is also a Solitary Bee and these are slightly smaller than the Honeybee and only have 5 or 6 in their colony.

Bee Keepers use a Smoker to control the Bees – this replicates the Forest Fire – the Bee gorges itself and therefore not inclined to sting.

Farmers are now educated to spray their fields early in the morning, typically 4 or 5am. By the time the spray has set – the bees by now are not so vulnerable.

In 1851 the Rev Lorenzo Langstroth in America realised that bees need a minimum Bee-Space (8mm) and also produced a removable wax frame and installed a number in a wooden “Hive”. His

development improved the quality of the honey and saved thousands of bees being killed at the end of the season, it also started a series of hives including the National, Smith and the William Broughton Carr (WBC) which Geoff said was liked by amateurs and lady beekeepers because it was double skinned and as it was usually made from cedar it was light however professionals preferred the heavier National. The frame is now wired for extra strength – samples were passed around. Geoff went into details regarding the amount of bee entrance needed at the hive to enable bees to regulate the air flow and keep out mice.

The initial wax six-sided cell is the most perfect shape – it cannot be improved by man or computer. The bee then draws this out, fills it with honey and then finishes it off with a cap of wax. They like the “Forget-me-not” flower in early spring and tend to ignore the Daffodil.

A swarm is where a new Queen sets off with maybe half of the hive of bees with the idea of setting up a new home.

Geoff said that as a radio amateur and beekeeper he was very aware of Sun Spots. Between 1645 and 1715 there were only 40 to 50 Sunspots and called the Maunder Minimum. Another poor period is referred to as the Dalton Minimum around 1815. He believed the weather, especially the cold winters, related to Solar Sun-spot minima. See other Sun-spots items in this Newsletter.

Using X-Band Radar its has been found that the pheromone from a Drone can be detected 800m down wind – far further than originally thought. He said that tagging the bee with a small aerial and using Radar enabled it to be confirmed that the “Bee Dance” which the bee uses to tell the rest of the hive where a good supply of nectar is. Also the Bee knows where it goes using direction and distance – not as per GPS as we would use now.

Local Pollen produces hay fever so eating local honey produced within say 3 miles can reduce the effect and this has been now been scientifically proved. Repeatedly heating the honey does reduce its health giving properties.

Answering a question about the Vorroa Mite, Geoff said that a group of Scottish bee keepers were trying to breed a Vorroa Mite resistant bee.

“How do you find the Queen?” – with difficulty – keen eyesight and years of experience were the answer – a dab of nail varnish helps.

**“Contest University” by Mark Haynes, M0DXR.** After the Break & Raffle draw Mark produced his laptop and projected a series of slides to show what he was proposing at the RSGB Convention at 10/11<sup>th</sup> October to advance their Contest skills.

Mark described how the series of lectures will be structured to cover the following subjects. Each person who attends 4 sessions will get a certificate & Course Notes – all free of charge (paid for by Icom).

Topics include the joy of Contesting - The various contest categories – Antennas – Propagation. Station Layout – Strategy - Contest Operating Procedures.

The Web site for the Contest University (USA) and soon to incorporate a UK component is:-  
<http://www.contestuniversity.com/>

## Write-up by John G8DET

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### Quality Table Top Sale

Advance information - the following is available for Sale: -

- Kenwood HF transceiver Model TS 830.
- Kenwood Remote VFO. Model VFO 240.
- Kenwood Antenna Tuner Model AT-230.
- Trio 2 metre transceiver TR-2200GX.
- Kenwood 144/440 FM dual bander Model TH-D7A.
- Trio Ham mic. MC.50.
- Alinco VHF UHF twin band transceiver. DR-605T.
- Icom HF/VHF/UHF, all mode transceiver. Model IC-706 Mk2G.
- PSU EP 925.

The above is being sold by Adrian Miller while Eric, G3MMX/G8ADX has the following items for sale, all in GWO:-

- HAMEG Scope HM203 c/w HB, probes. £35.
- Antenna Rotator AR300XL never used £60.
- BC221 c/w with HB and Mains PSU £15.
- Timestep Digital Freq. Counter £10

If you would like to make a bid, please phone Geoff on 01245 473822.

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## Chelmsford Award – Essex Air Ambulance

On Monday, 27<sup>th</sup> April a number of CARS Members assembled at the gateway to Boreham Airfield and were escorted to the Air Ambulance Control Room by Nezda Leigh, Community Fundraising Co-ordinator for the Air Ambulance. Brian, G3CVI had spotted it landing a few minutes before having returned from Hertford where it had taken an injured man to hospital as their helicopter had developed an oil leak. It stopped raining and it was possible to have a photo shoot against the twin engine helicopter which proved to be surprisingly small. The Paramedic on site was Steve Dennehy.

This presentation of the £500 cheque was the culmination of three years work by Amateurs both around the World and locally to subscribe to the

Award, thought up by Vice Chairman, Martyn G1EFL. See photographs on the CARS Web site under Past Events.

<http://www.g0mwt.org.uk/events/air-ambulance/index.htm>

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## International Marconi Day – 25<sup>th</sup> April

To commemorate Marconi's Birthday, Radio Amateurs throughout the World with an association with Marconi transmit, generally, using a Special Event Call-Sign. CARS used GX0MWT.

CARS had a VHF/UHF Station in the Caravan by The Barn by kind permission of Mark Sanderson, M0IEO and a HF SSB Station in the Marconi Hut. Additionally Dr Bowles, the Keeper of the Science & Industry Museum had given permission for Tony, G4YTG to install his station in the "Upstairs Room". Tony reports they made over 100 CW contacts on 14MHz with several to Japan and many to the Russian sector.

To continue CARS Training emphasis CARS announced occasionally that QRP, M3, M6 and DX Stations would be preferred to be worked. This was to give weak signal stations a chance of being heard and therefore the opportunity of gaining an IMD Award.

Again, see CARS Web site for photographs and report under "Sandford Mill".

<http://www.g0mwt.org.uk/sandfordmill/imd09fold/imd09.htm>

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## CARS Sport Radio (Contest) Group

Steve, G4ZUL is organising NFD CW Contest from the car park in Sandford Mill starting at 10am on Saturday, 6<sup>th</sup> June.

All CARS Members are invited to assist with the erection of the Aerial, Operating and NAAFI tents and provision of equipment needed at such an event. The Contest starts at 1500hrs UTC and runs for 24 hours. Likewise Members are required on Sunday afternoon to assist closing down the site.

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## June Sport Radio (Contests)

### RSGB National Field Day / CW

6/7 June, 15:00 – 15:00 UTC, 24hrs

Bands: 1.8, 3.5, 7, 14, 21, 28MHz

Exchange: RST + serial number

Sections: a) open, b) restricted, c) low power.  
all sections are multi operator and portable only.

for all other information on equipment, scoring and general rules for this contest see:

[www.rsqbfcc.org](http://www.rsqbfcc.org)

## JARL All Asian DX / CW

20/21 June, 48hrs

Bands: 1.8, 3.5, 7, 14, 21, 28MHz.

Exchange: RST + Age.

Full details from [www.jarl.or.jp](http://www.jarl.or.jp)

## RSGB Club Championship (80 metres)

Dates for June as follows:

DATA 01 June. 20:00 – 21:30 Local

CW 10 June. 20:00 – 21:30 Local

SSB 18 June. 20:00 – 21:30 Local

Further information & rules from [www.rsgbhfcc.org](http://www.rsgbhfcc.org)

## VHF Contests

20/21 June: 50MHz Trophy Contest

Starts: 14:00 - Finishes: 14:00 UTC (24hr)

Sections: SF, SO, M, 6S, 6O.

(special rules M4, S7)

Full rules from [www.vhfcc.org](http://www.vhfcc.org)

For any further information please email Steve

G4ZUL - [contests2009@g0mwt.org.uk](mailto:contests2009@g0mwt.org.uk)

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## Comet CHA-250B Wideband Vertical Aerial.

I am rather restricted for aerials at my QTH. I have a half size G5RV, but I wanted a Vertical aerial. I looked around on the aerial web sites and found the Comet aerial. The comments regarding this aerial were mixed. I remembered that my friend Koos, GU0GUX in Guernsey had one of these aerials so I had a chat with him about it and I decided to purchase one.

The aerial is mounted approx 25ft above the ground. It was easy to assemble, and only took me about 20 minutes but I did get an aerial fitter to install the aerial on the side of the house.

The VSWR for the various HF Bands is:  
1.8 MHz-2.5; 3.6 MHz-1.6; 7.04 MHz-1.6  
14.1 MHz-1.2; 8.12 MHz-1.2; 28.36 MHz-1.3.  
What I like about this aerial, is that there are no radials.

Countries worked so far are: I, CT3, UR, AM, UA, LY, S5, 9A, OL, ES, 3V, K, YU, SV9, EA8, RA, SO, LZ and 4Z. I am very impressed with this aerial & I would recommend it.

## Martyn Medcalf. G1EFL

*Editor's comment. CARS has one of these Aerials – if anyone would like to borrow it, contact a Member of the Committee.*

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## CARS - Windmills on the Air - 9/10<sup>th</sup> May

CARS were at Stock Windmill using GB5SM from Mark Sanderson's (M0IEO) lovely caravan.

Patrick, M0XAP organised this event in co-operation with Chelmsford Borough Council.

Although the weather was cooler than last year a great time was had by all.

Again, see CARS Web site for photographs and report under "Past Events".

<http://www.g0mwt.org.uk/events/stock-windmill-09/index.htm>

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## Training - New Foundation Course

A new Foundation Course starts on Thursday, 3rd September 2009 at Danbury Village Hall in place of the long Advance course. If you would like to attend, please contact Clive, below.

Members can help us by telling people about the Courses CARS run by putting up posters in public places. A poster for display can be downloaded from: -<http://www.g0mwt.org.uk/training/poster2.pdf>

For details of all CARS Training Courses contact Clive Ward G1EUC

Tel: 01245-224577 Mob: 07860-418835

E-mail: [training2009@g0mwt.org.uk](mailto:training2009@g0mwt.org.uk)

The CARS training page is at:-

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

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## Chelmsford Town Centre Operation

Richard, M3YLB and Mark M0IEO have obtained permission from Chelmsford Borough Council to operate from the town centre to demonstrate and raise the profile of the Radio Amateur and invite members for the September Foundation Course.

Well done Richard & Mark. If anyone would like to assist, please contact Mark at:-

[belinda.sanderson@tiscali.co.uk](mailto:belinda.sanderson@tiscali.co.uk)

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## Sunspots? Where?

In 1890, Walter Maunder, the Superintendent of the Solar Department of the Royal Observatory at Greenwich, reported to the Royal Astronomical Society that: "For a period of about 70 years, ending in 1716, there seems to have been a remarkable interruption of the ordinary course of the (Sun) spot cycle. In several years no (Sun) spots appear to have been seen at all, and in 1705 it was recorded as a most remarkable event that two spots were seen on the sun at the same time, for a similar circumstance had scarcely ever been seen during the 60 years previous."

As a result of investigative work by an American Astronomer, Jack Eddy, this general lack of Sun

spots and very low annual counts in the "then best" years was confirmed as having occurred between 1645 and 1715. In recognition of Maunder's input on this, the inactivity period is now called the Maunder Minimum. There is no reason to suppose that this phenomenon could not occur again - carbon-dating techniques on old timber have shown that similar periods occurred between 600AD to 810AD (210 years), 1300AD to 1350AD (50 years) and 1420AD to 1520AD (100 years). The gaps between such "DX Disasters" are 490 years, 90 years and 125 years, while the Maunder Minimum was 293 years ago. We could well see the start of another such period at any time, or even be at the beginning of the next one now!

P.S. I remember that back in 1957/58, when the largest Annual mean count of Sun spots for over 300 years occurred, my landlady in Colchester was very upset by the foul language of taxi drivers in New York, breaking through on Channel 1 BBC TV, (45MHz) usually around late afternoon and early evening. It quite ruined her TV viewing!

**Dave G3PEN**

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### Another View on Sun Spots

From <http://www.spaceweather.com/>:

An international panel of experts led by NOAA have issued a new prediction for Solar Cycle 24:

It will peak, they say, in May of 2013 with a below-average sunspot number of 90 – see

[http://www.spaceweather.com/headlines/y2009/08/may\\_noaaprediction.php?PHPSESSID=a6tlt2qki0Iqaehutkulc38b61](http://www.spaceweather.com/headlines/y2009/08/may_noaaprediction.php?PHPSESSID=a6tlt2qki0Iqaehutkulc38b61)

**Peter Meadows, 2E0ZBU**

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### Design a Satellite

Visit an educational Web site and design a Satellite. Click on the link below and follow the instructions which are idea for younger Members.

John, G8DET couldn't work out how to complete the launch – maybe you are better at it web wise. <http://www.eduweb.com/portfolio/designsatellite/>

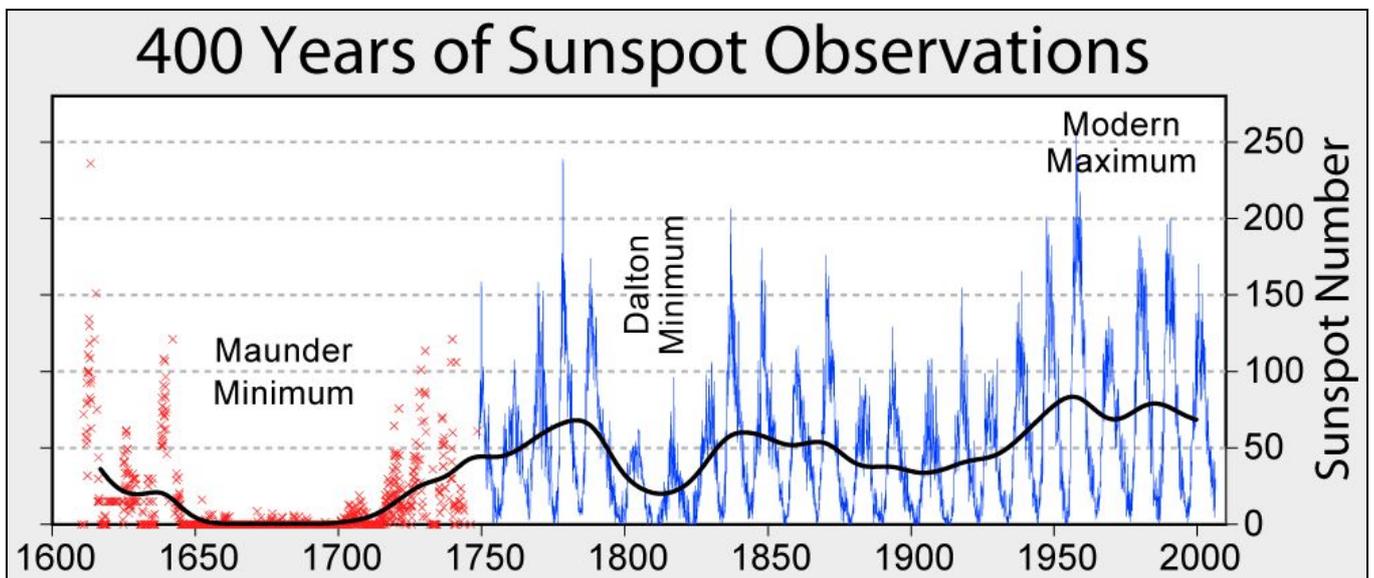
**Trevor, M5AKA**

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### And Finally.....

John G8DET edited this edition. Material by; Murray G6JYB, Trevor M5AKA, Steve G4ZUL, David G3PEN; Mark M0IEO, Peter 2E0ZBU & Geoff, G7KLV.

Items for the next Newsletter should be sent to the [editor@g0mwt.org.uk](mailto:editor@g0mwt.org.uk) by Friday 26<sup>th</sup> June.



Graph From: [http://en.wikipedia.org/wiki/Maunder\\_minimum](http://en.wikipedia.org/wiki/Maunder_minimum)