



# 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 533

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

August 2010

This Month's Meeting – Tuesday, 3<sup>rd</sup> August, 7.30pm at the Marconi Club.

## "Digital TV and Radio - What's Next?"

By Murray Niman, G6JYB

Have you switched yet? Think you are ahead of the game?

In March 2002 Murray G6JYB gave CARS a landmark talk of the then embryonic Freeview and TV switchover project that many now take for granted and can barely wait to complete.

Now though there is now a whole new raft of TV developments including the new DVB-T2 standard used by Freeview-HD, Project Canvas (Youview?) for Internet-TV and of course 3D.

Hear why wideband 'digital aerials' and amplifiers are the last thing you now want when 4G-LTE comes to a street near you. Learn how there may be a further TV Switchover and digital dividend even before the current one is sold off.

Meanwhile hard on the heels is Radio Switchover, recently enshrined in law by the Digital Economy Act and rapid developments by the Coalition, BBC and CEPT, but still not fully understood by public and others alike.

So this the opportunity to hear first hand what it really means and to understand the latest acronyms – DAB+, DMB, DRM+, TPEG, etc.

What does this all mean? How do I avoid wasting money in the shops on kit that may become obsolete? Get the latest update at the CARS Meeting on 3<sup>rd</sup> of August.

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

### Dates for your Diary

Sun 25 <sup>th</sup> July 10am-3pm	Colchester Rally at St Helena School Sheepen Road Colchester C03 3LE
Tues, Aug-10, 17, 24 & 31 <sup>st</sup>	CARS CW Net starts at 8pm on Tues 13 <sup>th</sup> ; SSB Nets starts at 8.30pm (Local)
Wed, 11 <sup>th</sup> August	CARS Committee Meeting – Danbury Village Hall – 7.30pm. All welcome.
Thursday, 2 <sup>nd</sup> September	CARS Foundation Course starts Danbury Village Hall. 7 to 9pm.
Tuesday, 7 <sup>th</sup> September	CARS Meeting – "WWII Arnhem Operation Radio Failure" By Peter Best G8BLS.
Sunday, 26 <sup>th</sup> September	CARS - Science & Discovery Day at Sandford Mill, 10am to 5pm – Free.

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 call-sign, postal or E-Mail address, etc. E-Mail 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) 145.375: (3rd) GB3ER: (4th) 1.947/50: (5th) 28.375. All MHz +/- QRM.  
Net Controller for Aug is Geoff, G3EDM Thanks to Colin, G0TRM for doing it in July.

## **Last Months Meeting:- "Constructor's Competition" by CARS Members and Carl Thomson, G3PEM.**

It is always with some trepidation that I approach the Constructors Competition meeting. Will we have enough entries or will the soothsayers who predict the demise of Amateur construction be proved correct. This year at 7.05pm I was rather concerned, as there were no entries on the table, but by 7.15pm I was a happy man. We had some entries!!

Two transmitters, a power point presentation, an inductance /capacitance meter based upon a PIC and a replica historical microphone.

Chairman John, G8DET opened the meeting by welcoming Members and visitors on this hot evening – fortunately not quite as hot as the previous week.

Gwyn, G4FKH was thanked for running NFD from Sandford Mill. Mark was thanked for providing his caravan for that venture.

Starting off the Constructors Competition John, G8DET said that he would play a PowerPoint Presentation he had put together for Dame Nellie Melba – this would show those in attendance what happened at the weekend of the 12<sup>th</sup> and 15<sup>th</sup> June.

Brian, G3CVI, John Yates, G1UZZ, Mark, M0IOE, James, 2E0GUA, Martyn, G1EFL, Colin, G0TRM and John, G8DET featured in the presentation.

Peter, G3SUY showed his PYE Handy Cambridge low band VHF transportable conversion to 160 metres (Topband). The conversion required the design and build of an AM semiconductor transceiver with VFO in place of the original receiver along with the conversion of the valve circuits from VHF to Topband. The modified unit produces 8 watts on Topband and is intended for use in the field with a 200ft kite aerial. The total cost was about £10 for new inductors to create the bandpass filters with most other bits and pieces coming from the junk box.  
- *Awarded 1<sup>st</sup> Prize.*

Patrick, M0XAP showed an AM Transmitter, 10 watts on 160m and 25 watts on 80m. It uses a single 807 as PA and 2 more for audio via an UM1 modulation transformer. The TX was driven by a 500volt PSU. Total cost about £45.00.  
- *Awarded 2<sup>nd</sup> Prize.*

Colin, G0TRM showed his version of the Dame Nellie Melba Microphone which she used in 1920. He had researched the event and concluded that the touched up photograph with the painted in background hid the fact that the cigar box microphone shield was symmetrical. Colin's microphone was pictured in the Essex Chronicle with Peter Turrall speaking into it.  
- *Awarded 3<sup>rd</sup> Prize.*

Andy G1GKN, entered a Capacitance / Inductance meter that uses a PIC Processor and an LCD to display the unknown value of a capacitor or inductor. The unit will measure from 1pf 100nf and 1µH to 10mH with about 2% accuracy. It is battery powered and built in a small plastic case.  
- *Awarded Special Prize for a First Time Winner.*

The voting by members was brisk with 27 voting forms out of the 30 forms taken returned.

Thanks to all the entrants, without whom the meeting would have been disappointing, to John for chairing the meeting and to the Raffle organiser - even if I did not win.

After the refreshment break and the raffle draw, the Question Session produced mainly stories/comment regarding interference. A number of Members had stories involving Plasma TV Interference. PLT also featured. No one had an official Ofcom visit regarding PLT so it was a question of trying to explain what each person has heard.

Murray commented that as the PLT interfering signals maybe very wide band, an inferior radio can give reception of this from its Image response.

It was agreed that those Members with an interference noise would try and record it in any format possible and bring it to the August Meeting. It may be possible to compare "noises" and try and determine the possible source.

## **Carl, G3PEM & John, G8DET**

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### **Amateur of the Year Award**

Mark Sanderson, M0IEO was awarded the Amateur of the Year Award last year – who will get it this year?

CARS Committee request that "nominations" are required by 'close of play' at the August meeting. Please inform Carl, G3PEM or any Committee Member or write your "Nomination" on a piece of paper and hand it in at the August Meeting.

A name or Callsign is all that is required with along with a simple nomination note (only a few words – not a thesis!) as to why you feel that person should be Awarded this honour.

Voting will take place at the September meeting.

The Shield will be engraved and presented at the AGM in October.

### **CARS Committee**

## July Newsletter – Feedback – PLT

*The ARRL report on the ITU PLT activities suffered a 'Microsoft moment', introducing a fundamental error of 150dB! The protection level we went for was minus 45dB microvolts/ metre, not plus 45dBmV/m. The problem came in the translation from my original document in Word 2003 Arial and Symbol fonts.....*

*Israel had some problems with our figures, while the broadcasters wouldn't have a degradation of 0.5dB for VHF: they insist on 0.05dB, so for consistency, I redid the figures, and the proposal for the Preliminary Draft New Report is now -41dBmicrovolts/meter for 2metres. The new ITU-T recommendation has been revised to stop at 80MHz, but in WP1A, I suggested that we should leapfrog the technology and redo SM2158 to go at least 470MHz, and this has been accepted. So I now need to redo the section of the report to cover 144, 220 and 430MHz - remember we have to cover all ITU Regions.*

*There was a suggestion that we are looking for protection levels such that we 'could hear grass growing'. I can defend this by showing that some Short Range Devices for such applications as social alarms (granny presses a button on the necklace when she falls over) and remote home monitoring of implants for eHealth require similar levels of protection, being much closer to the mains wiring than the amateur antennas. Of course, to what extent the ITU-R Reports and Recommendations are taken notice of is another matter, but it sets stakes in the ground.....*

*Came back from Geneva to have a blood test before leaving for Mainz and then California.*

**Peter Chadwick DL/G3RZP/P (when written)**

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### PLT Interference

A PLT video showing what appears to be a new variant of BT Vision Comtrend.

<http://www.youtube.com/watch?v=BmQIJXYkG10>

Andy, G1GKN has brought to CARS two EMC magazines. Very interesting! The Institution of Engineering & Technology (IET, formerly IEE) is inviting everybody to describe how to identify and detect PLT Interference.

Entries to be in by 6<sup>th</sup> September.

The IET is planning an online debate on the results.

**Trevor, M5AKA & John G8DET**

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## TV QRM

A West Country plasma TV story for you:-  
The insight to these matters came from my ex colleague in arms Alan, G4DZW who lives at Street, near Glastonbury.

The victim is Colin, G4ERO who complained (some time ago) that his neighbour's TV set was radiating an unreasonable amount of noise and interference. Ofcom visited the neighbour and took some measurements of the set (Panasonic, I believe) and agreed with him. Some time later Ofcom confirmed that the set was out of spec and he received this note:

### INTERFERENCE INVESTIGATION

*I am writing to advise you of the outcome of our investigation into your interference problem.*

*As you were aware, the television set used by your neighbour was proved to be the source of your Amateur Radio reception problems.*

*Following representations to the manufacturer of the television, it should now have been replaced with a version that should not cause the same problems.*

*Yours Ofcom etc ....*

Subsequently, while Colin was away on holiday week before last, a couple of blokes from Panasonic brought his neighbour a new TV and took careful note of his antennas and measured distances to the neighbours property etc.

Colin reports the noise from the new TV is different in character but no better. He has referred it back to Ofcom! We await events since Alan said that he will keep me posted.

At the end of his email to me, on the subject of the EU banning plasmas Alan's comment was:

*"Of course it won't be retrospective and no doubt the UK will apply for derogation instead of gold plating as they usually do. But it seems the end is over the horizon while we wait for the death of those in present use. I am fortunate in not having any here. Just have to cope with rising level of choking miasma from everything else."*

I'll keep you posted

**Peter, G3SUY**

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### August Radio Sport (Contests) All in UTC.

**01 August** - European HF Championship - SSB/CW - 12 Hours

**01 August** - RSGB RoPoCo - CW - 07:00 to 08:30

**07 August** - 144MHz Low Power - 14:00 to 20:00

**08 August** - 432MHz Low Power - 08:00 to 12:00

**12 August** - RSGB Club Sprint - CW - 21:00 - 22:30

**25 August** - RSGB Club Sprint - SSB - 21:00 - 22:30

For further information please email Steve G4ZUL  
[contests2010@g0mwt.org.uk](mailto:contests2010@g0mwt.org.uk)

**Steve, G4ZUL**

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## Radio Path Predictions – August.

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

**Asia: Dhahran** - around 18:00 on 18.1MHz for 83 percent of days, with poor signals.

**Oceania: Sydney** - around 20:00 on 7.0MHz for 51 percent of days, with poor signals.

**Africa: Johannesburg** - around 18:00 on 10.1MHz for 88 percent of days, with poor signals.

**S. America: Rio de Janeiro** - around 22:00 on 10.1MHz for 82 percent of days, with poor signals.

**N. America: Saskatoon** - around 22:00 on 14.0MHz for 77 percent of days, with poor signals.

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

**Gwyn, G4FKH**

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## ISS Ham Active on 145.800 MHz

Radio Amateurs in the Americas and Europe have been reporting FM voice contacts with astronaut Doug Wheelock KF5BOC signing NA1SS from the International Space Station and World Cup soccer has been one of the topics discussed.

On the AMSAT bulletin board Fabiano Moser CT7ABD / PY5RX writes:

*I had a voice QSO yesterday [Saturday] with astronaut Doug Wheelock, where he and Russian cosmonauts asked about the game of today (World Cup). Germany won versus Uruguay 3x2.*

The Radio Amateurs on the Space Station call CQ on 145.800 MHz FM. If you hear them calling CQ and you are in the British Isles/IARU Region-1 you should go back to them on 145.200 MHz.

This means simply switching in your -600 kHz repeater shift. The ISS uses wide (5 kHz) deviation FM so if your radio has switchable FM filters try the wider setting.

Pass predictions and status information are available on the ISS Fan Club website  
<http://www.issfanclub.com/>

Getting started on Amateur Radio Satellites PDF  
<http://www.uk.amsat.org/content/view/408/168/>

AMSAT Bulletin Board AMSAT-BB  
<http://www.amsat.org/amsat-new/tools/maillist/>

AMSAT-UK publish a colour A4 newsletter, OSCAR News, that is full of Amateur Satellite information. Join online at [https://secure.amsat.org.uk/subs\\_form/](https://secure.amsat.org.uk/subs_form/)

AMSAT-UK International Space Colloquium, Guildford July 31 - Aug 1  
<http://www.uk.amsat.org/colloquium/>

**Trevor M5AKA**

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## CARS Outings – Bletchley Park

For the previous two months CARS Committee have been requesting if there is any interest in an Outing to Bawdsey to see the Radar Exhibition.

As Minister Neville Chamberlain said “*No such undertaking was received by the time stipulated, and, consequently.....*” CARS have scrubbed the idea.

However the University of the Third Age (U3A) Baddow & Galleywood Branch are running a Coach to Bletchley Park on Saturday, 23<sup>rd</sup> October.

Pick-up can be in Maldon, if there is a demand, but Danbury and Great Baddow are normal pick-up points. It is 83 miles away and there is a £3.00 charge to park a private car at the weekends. It is essential to go on a weekend as many of the rooms are run entirely by volunteers and therefore not open during the weekdays. Watch this space for details.

Please contact the Editor or a Committee Member if you wish your name to be put on the list for a seat.

**John G8DET**

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## Indicator Unit BC929 - Rebecca

By a stroke of good fortune, ex Marconi Radar Engineer Fred Kime recognised the picture in the CARS Newsletter and remembered he used to work on it during WWII. He even was able to produce his Training Notes and the circuit diagrams – not bad after 68 years. Fred’s notes tell us that the Tx frequency was 214, 219, 224, 229 & 234MHz. The Rx Frequency was any two adjacent frequencies eg 214 & 219MHz. Receiver IF was 30MHz.

Fred was involved in modifying the American APN2 for use on Japanese Airfields after their surrender to enable POWs to be extracted.

Thank you very much Fred.

**John G8DET**

## Transmission 2010

Radio communication is a vital part of today's world.

British Wireless for the Blind Fund invites Clubs to take part in Transmission 2010, our annual competition to make as many contacts across the world as possible and raise money for a very worthwhile cause at the same time.

British Wireless for the Blind Fund is a registered charity providing specially adapted radios and audio equipment on free permanent loan to registered blind and partially sighted people in need in the U.K. Every year we receive requests for around 5,000 sets at a cost of approximately £750,000. All sponsorship money raised from Transmission will go towards continuing our much-valued service.

This year's competition will be taking place over the weekend of the 18th/19th September and I very much hope that your Club will consider taking part. By getting friends and family to sponsor the number of contacts you make, we are able to keep people with sight loss in touch with the world.

To enter the competition, please either complete go to our new website at <http://www.blind.org.uk/> and fill in the on-line form. Sponsorship forms and a poster can also be downloaded.

Once your registration has been received I will send out QSL cards, a copy of the Rules and sponsorship forms.

There are trophies to be won for:-

- Most contacts made by an Individual or a Club
- Most money raised by an Individual or a Club
- Young persons individual or group special achievement award

I also hope to have prizes for each category. As soon as these are confirmed, I will put the information onto our website.

I do hope you will decide to take this year and aim to raise sufficient funds to provide a radio set for someone in need in your area. The average cost of a set is £150.

As an independent charity receiving no government funding or lottery money, BWBF are entirely reliant on the kindness and generosity of our supporters. Only with your help can we continue our work of supplying radios and audio equipment to people with sight loss.

### **Frances Fielding** (Fundraising Manager)

British Wireless for the Blind Fund  
Registered Charity No. 1078287  
Tel: 01622 754757  
Web: <http://www.blind.org.uk/>

## Schedule for OH/G1Uzd

From Sammatti, Finland, locator KP10vh.  
Operating from 11 July to 11 August, 2010.

I shall be calling/listening on 14.300MHz ± QRM at 19.00 BST each weekday if anyone can make it.

On Sundays I shall call/listen on the same frequency at 10.50 BST, i.e. just before the Sunday 2m net except 25 July when the bands will be crowded with the IOTA contest. I will not be on Saturdays.

This is of course subject to change if we are visiting relations and friends but I will inform you over the air of such changes/additions etc. I shall be using a 1kW HF+6m linear amplifier again this year so hopefully you'll hear me!

Possible internet facilities from the QTH this year using a 3G dongle, I will be investigating.

Would be nice to contact some CARS Members.

## John G1Uzd

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### CARS Foundation & Advance Training

On Thursday, 2nd September CARS starts their next six week Foundation Course in Danbury Village Hall which will run until the exam on the 7th October. To register contact Clive below.

Following that CARS have a four-week 'fast track' Course for the Nov-22 Advanced exam, running from Thu 28-Oct to 17-Nov for which Clive is also interested in candidates.

The PowerPoint slides used for these 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](mailto:training2010@g0mwt.org.uk)  
Web: <http://www.g0mwt.org.uk/training/>

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### Propagation Report - VK

20m conditions are proving a little better to Oz on long path. Worked VK3QW, VK5AEP, VK6CJW and VK6PM at readability 5 and various signal strengths from 1 to 5.

My score of VKs worked is now standing at 2638 different ... mostly on 20m.  
It has taken 38 years to get that number.

### Geoff, G3EDM

## CARS Christmas Lunch

CARS traditionally finish their Social Activities with a Christmas Lunch at mid-day on the first Saturday of December, the 4<sup>th</sup> December 2010.

This year for a change it is proposed to have it at the Glades Restaurant by the Tesco/Miami Roundabout, Chelmsford.

As this is a new venue for CARS, the Committee would be interested in your comments before the final booking is made.

## CARS Committee

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### Amateur Satellite Talks on Interference Investigations and Bandplans

Hans van de Groenendaal ZS6AKV, IARU's Amateur Satellite Advisor will be giving a presentation on South Africa's first CubeSat at the AMSAT-UK Colloquium in Guildford, England, July 31 – Aug 1 which is being web streamed live on both days.

HF radio communication is very susceptible to noise levels that are created by power lines, electrical installations and overhead lines used by trains and buses and PLT systems. In fact today there are many installations that do not necessarily comply with internationally agreed emission standards. With increasing solar activity interference signals are propagated over large areas and will interfere with HF communication.

The important mission of the SA-AMSAT CubeSat is to measure the High Frequency noise levels over South Africa and report these measurements back to a ground station for analysis and action to reduce these unwanted signals. The information from the tiny satellite will identify the areas where the HF frequency polluters are situated and will help reducing or eliminating the source.

The presentation by Hans ZS6AKV starts at 10:15 on Sunday 1st Aug.

A little later at 11:30 on Sunday morning is a presentation titled "*Satellite Bands - What's New*" by Murray Niman G6JYB. This will extend the theme to VHF coordination, monitoring, bandplan & spectrum issues for the growing number of Amateur Satellites

You can watch the presentations live on the web at <http://www.batc.tv/> Click on "Live Events".

Further info about the event is at <http://www.uk.amsat.org/colloquium>

Detailed Programme: <http://www.uk.amsat.org/content/view/713/284/1/3/>

## Plasma TVI Anecdotes

Slightly light hearted answers to TVI and picture problems.

[http://www.youtube.com/watch?v=hTXILxV\\_Xwk&feature=related](http://www.youtube.com/watch?v=hTXILxV_Xwk&feature=related)

<http://www.youtube.com/watch?v=As0CyUEF3i4&feature=fvw>

### How to repair Plasma TVs

<http://www.youtube.com/watch?v=lKJcBx9cXKo&feature=related>

### Recommended action to cure Plasma TVI:

<http://www.youtube.com/watch?v=VYJfCazS-r0>

[http://www.youtube.com/watch?v=otY\\_GAI8gdM&feature=related](http://www.youtube.com/watch?v=otY_GAI8gdM&feature=related)

Hope you enjoyed these links!

## Norman. M0FZW

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### So long then....

#### Windows 2000, early XP and Vista

On July-13 Microsoft shut off all support to Windows 2000 and Windows-XP SP1/2

I would like to remind people who are still running Windows XP that as of July 13th, 2010, Windows XP SP2 or earlier will no longer have any support or security updates. You will need to be on Windows XP Service Pack 3 or look at moving to Windows 7 to be running a supported version of Windows. Support for existing users of Windows XP Service Pack 3 will continue for quite a while yet.

The original edition of Windows Vista lost its support in April – again you should be on a current service pack for it – which is Vista-SP2. Some vendors who support industry on XP are not bothering with Vista and recommend a leap to Win-7 - hint hint!

## Murray G6JYB

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### And Finally:-

John G8DET edited this edition. Material by; Trevor, M5AKA; Steve, G4ZUL; Gwyn, G4FKH; Murray, G6JYB; John, G1UZD; Peter, G3SUY; Norman, M0FZW & Peter, G3RZP.

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](mailto:editor@g0mwt.org.uk) by Saturday, 21<sup>st</sup> August