



Chelmsford Amateur Radio Society

Established 1936

Affiliated to the RSGB
President: Harry Heap G5HF
Secretary: Martyn Medcalf G1EFL

Club Call Sign: G0MWT
Chairman: John Bowen G8DET
Treasurer: Brian Thwaites G3CVI

Newsletter No 490

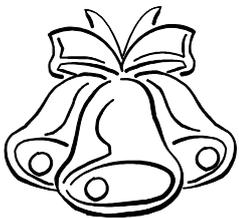
Web Address: www.g0mwt.org.uk

December 2006

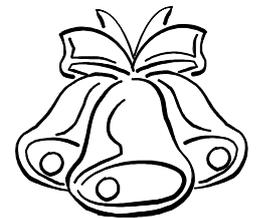
This Month's Meeting – My Life with VLF's 5th December. 7.30pm at the MASC.

This month we are back to Radio, Radio, Radio with a talk by Tony G4YTG who used to work for Her Majesty's Post Office and its successor BT. At some point in his career he switched from boring old telephones to radio and worked his way up the promotional ladder and eventually came to be in charge of all the aerial installations at their wireless stations.

Tony will tell us about his experiences with low frequency transmitting stations. Now that some of these have been taken out of service, he feels he can tell us some of the many interesting and amusing stories he was personally involved with during his long career in radio. Please tell Tony if you see any MI5 moles in the audience as he may be breaking the 30 year rule! Some of his stories will involve high power, many 100's of Kilowatts and high heights, which are a shade more deadly than most of us as Amateurs are used to! This will be an illustrated talk and is sure to be most interesting because Tony is a very accomplished raconteur!



**We wish all our Members a
Happy Christmas and a Prosperous New Year**



Dates for Your Diary

| | |
|------------------------------|------------------------------------------------------------------------|
| December | Net Controller: Chris G0IPU |
| Tue Dec 5th. | CARS Meeting MASC Tony G4YTG My Life with VLF's |
| Wed Dec 13 th . | CARS Committee Meeting - Danbury Village Hall at 7.30pm - All invited. |
| Thu Dec 14 th . | CARS Xmas Dinner – Chimes Restaurant at The Rettendon Bell |
| Tue Jan 2 nd 2007 | CARS Meeting MASC Triple-Decker – An event by CARS Members.... |

Subscriptions are now over due

Brian, G3CVI would like to remind Members that the Subs for 2006/7 are now over due. It is the same rate as last year at £10. Please see Brian at the December meeting. If you are not going to be there, please send your cheque for £10 made out to "Chelmsford Amateur Radio Society" to Brian Thwaites, 118 Baddow Hall Crescent, Great Baddow, CHELMSFORD. CM2 7BU. Also, please enclose a stamped and addressed envelope for your Membership Card, thank you.

Christmas Dinner

There are still a few places left for our Christmas Dinner on Thursday, 14th December. An application form was attached to our last Newsletter but if you mislaid it or forgot to book there's still time. Give Julie a ring on 01245-425644 before the 1st December and you may still be lucky, but do hurry!

Our grateful thanks to Denis, M0FHA and Joy for posting this Newsletter. Could it have gone by E-Mail?
Please keep our Membership Secretary, informed of any changes to your callsign or E-Mail addresses, etc.

For further details contact our Programme Secretary: Martyn M3VAM on 01245-469008 or look on the CARS Web Site.
Club Nets: Tuesdays 8-30pm: (2nd) 145.375 : (3rd) 1.947 : (4th) 1.947 : (5th) 145.375. All +/- QRM.

Last Month's Meeting The Chelmer & Blackwater Navigation by Colin Edmond

Before introducing our guest speaker Colin Edmond John G8DET explained that this month's meeting was a 'social evening' with the intention of appealing to a wider audience of wives and girl friends, aka XYL's and YLs, of whom we welcomed ten!

Colin started his talk by explaining that a navigation is defined as a river which has been made into a navigable waterway as opposed to a purpose-dug canal.

He surmised that we had probably seen reports in the press about the financial difficulties experienced by the Chelmer & Blackwater Navigation Company, which was nearly liquidated, shut down and sold off. There had been a number of options. The Environment Agency was approached and, as they were strapped for cash, they would have opened all the lock gates, got rid of the pleasure craft, and used it as a ditch to drain Chelmsford. British Waterways weren't interested, probably, because there were no acres of land ripe for profitable housing or industrial development!

In the end the Inland Waterways Association came to the rescue! Although not in their normal remit the local branch decided, after much hear searching, to involve themselves in taking over and developing the assets. A wholly owned subsidiary of the IWA, called Essex Waterways was formed. Because of the connection with IWA it now has charitable status and a very much brighter future! The Navigation Co. is still in existence for very necessary legal reasons, otherwise the land would have to be returned to its original owners or their successors!

As early as 989 AD Vikings had reached Little Baddow and the monks of Beeleigh Abbey had used the River Chelmer, being tidal in those days, as a means of transport to nearby churches. As far back as 1677 there had been suggestions for making the Chelmer navigable from Maldon up to Chelmsford but it wasn't until 1766 that an Act of Parliament was passed to make the river navigable from Fullbridge at Maldon up to Moulsham Bridge. Unfortunately only half the money required could be raised so the scheme had to be shelved.

The main beneficiaries of the scheme would be Chelmsfordians but the citizens of Maldon felt they would lose out on harbour dues and wharfage etc. However matters did not rest there and in 1792 a fresh scheme starting from Springfield Basin was prepared which would bypass Maldon and reach the sea at Heybridge. The section from Beeleigh to Heybridge would by definition be a canal. Difficulties

in raising the necessary capital, about £40,000, were encountered and some of the money was raised in Leicestershire as folk there, who had experience of canal building and use, realised better than Essex locals that such a scheme could make a profit! However It has never been a money maker, with only minimal profits. The coming of the Eastern Counties Railway in the 1840's didn't help!

John Rennie, an experienced engineer in canal construction, was employed to oversee the construction and the works were completed in 1796 under the direct supervision of Richard Coates. Due to the height difference of about 78 feet between the two ends it was necessary to construct 12 locks. Each lock was 68ft. long and 17 ft. wide sufficient to accommodate lighters 60 ft. by 16 ft. and capable of carrying up to 30 tons with a draft of only 21 ins. A good supply of water is required to replenish the losses due to locking. The Chelmer and the Blackwater rivers together drain two thirds of Essex and it is also fed by streams along its length.

The new owners are developing its natural assets in a variety of ways. Originally it was used to breed eels! The mixture of fresh and salt water at Heybridge evidently produced ideal breeding grounds. Nowadays income is derived from pleasure craft and angling. Another steady and continuing source of income is from cropping willow trees which grow on the banks. These are sold to the local willow merchants, Wrights at Gt. Leighs, who cut them up, send them to India where they are shaped into cricket bats and then sent back here for finishing and ultimate sale! The Essex & Suffolk Water Co. pay for water extracted at Langford which is pumped on to Abberton and Hanningfield. All the lock houses, except the one at Heybridge, and the pub have been sold to raise capital.

With years of neglect there is a constant need for maintenance. Bridges could have been a very heavy drain on resources and maintenance costs would be far beyond the present owners. Many years ago one very astute Board member managed to persuade the Essex County Council to assume responsibility for over bridges. The Princes Road bridge is nearing the end of its life and it is thought that the solution will be to build a completely new bridge and demolish the existing one. Other bridges are in need of expensive maintenance, which fortunately are not the Navigation's responsibility.

Lock gates are essential part of the equipment and are very expensive to build and maintain. The gates at Sandford lock have recently been renewed and others are scheduled for renewal next year. The manufacture and installation of lock gates is a very specialised task, carried out by a local firm. They are made from oak, once English but now French.

It is a matter of trial and error in making and installing lock gates. In order to make them water-tight, the bottom of the gates must meet the cill at the same time as the mitre meets. The gates need to be made from raw cut timber before it dries out. Gates can last up to thirty years,

Where the drainage of land is the Navigation's responsibility, such as at the Bovis housing development at Maldon, where the Navigation is above ground level they use 'chunkers'. These are wooden pipes made of elm. Similar pipes are used at Springfield Basin to maintain the level with water obtained from the upper reaches of the Chelmer

Two barges were mentioned during the talk. One was the "Susan" presently at Sandford Mill and now under the care of the Susan Trust, which is charged with raising £250K for restoration. It is a pig to navigate, apparently! The other vessel is the recently re-bottomed "Julie" which is a steel boat and handles excellently and used as a work boat.

The Navigation supports a lot of wildlife, is a most enjoyable and relaxing environment for leisure. However, we were told that cyclists do tend to chew up the tow paths!

After the talk there were many questions and this, clearly, is a story yet to run its course. Colin's presentation was illustrated throughout with a series of interesting slides and delivered with an entertaining sense of humour that was a real joy to listen to. Thank you Colin.

Report by Patrick M0AXP & Geoff G7KLV

Thank You Martyn G0EFL from Geoff G7KLV

I have always thought that the worst job on the CARS Committee is that of Secretary. Apart from the obvious he has to get out the program for our monthly meetings. He has to think of interesting topics for our meetings and do all the arrangements. Yes, we do have a number of time honoured fixtures in our calendar but he has to arrange speakers for at least eight meetings every year. True, he does get suggestions from the Committee but the job is ultimately his responsibility.

He will never please all of us Members all the time but I think he does a grand job and I would like to thank him. So, thank you Martyn!

CARS Committee Vacancies

Would you like to help run CARS? You would be welcomed on the Committee. Get in touch with John G8DET who would love to hear from you!

December Contests - Steve G4ZUL

ARRL 160 Metre / CW Contest.

Friday, 1st to Sunday 3rd December
Starts: 22:00 Finishes: 16:00 UTC. 42Hrs
Exchange: RST only
Further information from <http://www.arrl.org/contests>

144 MHz AFS Contest

Sunday 3rd December
Starts: 09:00 Finishes: 17:00 UTC
Exchange: RS + Serial number + Locator
Sections: SF, O. (Special rules S3)
Full rules from <http://www.vhfcc.org/>
**Every CARS Member can assist with this Contest.
Switch your TX on and give a few QSOs/Contacts.
Then send a paper Log or E-Mail it to Steve.
This will boost CARS position in the Contest.**

ARRL 10 Metre. SSB/CW Contest

Sat - Sunday, 09/10 December, 48HRS
Exchange: RS(T) + Serial number
Further information from <http://www.arrl.org/contests>

CARS Merchandise

Don't forget that we have a range of merchandise available at reasonable cost. Martyn G0EFL always has baseball caps, car stickers and badges available for sale at meetings but the quality range of CARS clothing has to be ordered.

CARS Training Report from Trevor M5AKA

The Advanced course is drawing to a close and the candidates will be sitting the exam on Monday evening 4th December. I'm sure we wish them well.

The next Foundation evening course at Danbury Village Hall commences on Thursday 22nd February. We need 10 candidates to ensure we cover our costs and we are significantly short of that target. We need posters put up in as many places as possible, University/Colleges, public buildings such as libraries and hospitals and of course at your workplace. If you would like to help by distributing posters then email me on m5aka@amsat.org and I will send you the poster in JPEG form.

How about writing an article for your in-house magazine? Offer to give a talk to U3A meetings where there are people with time on their hands who might take up amateur radio.

To book a place on the Danbury Foundation course contact Clive Ward, G1EUC Tel: 01245 224577
Mob: 07860-418835
E-mail: training2007@g0mwt.org.uk

Chelmsford Calling

The station Chelmsford Calling run by radio amateur and Club Member Jim Salmon M3RMI has broadcast four times since 2001 under a Restricted Service Licence (RSL).

Earlier this year it was awarded a Community Radio Licence by Ofcom and it is planned to commence regular broadcasts from Chelmsford - the Birthplace of Radio - on December 23rd. A basic website is now up and running, giving the latest details, see <http://www.chelmsfordcalling.com/>

Ofcom Technology R&D Report, Monitoring System and New 2006 WT Act

Ofcom has published its second annual Technology Research and Development Report, which provides an overview of emerging technologies that have the potential to make more efficient use of the radio spectrum. Section 3.2 on pages 29-34 covers an Automatic Monitoring System.

Ofcom currently has two programmes that utilise unattended equipment for spectrum management and interference resolution purposes:

- The Remote Monitoring and Direction Finding (RMDF) system currently consisting of 24 sites with the capabilities to detect signals and their direction of arrival from 20 MHz to 3 GHz.
- The Unattended Monitoring System (UMS) currently with 28 sites capable of providing occupancy information from 20 MHz to 3 GHz.

However, Ofcom are looking at a future fully comprehensive network, capable of monitoring the radio spectrum and detecting interfering sources over a large part of the country. This would need far more monitoring stations than are currently in the network but it would allow Ofcom to rapidly detect and locate sources of illegal transmissions, such as pirate radio.

Recently the new 2006 Wireless Telegraphy Act received Royal Assent. This act replaces the 1949 Act and several others since and enables the use of Fixed Penalty Fines. These in conjunction with an Automatic Monitoring System could provide an effective means of policing the radio spectrum.

Technology Research Programme 2005/06

<http://www.ofcom.org.uk/research/technology/overview/techrandd0506/>

PDF of Technology Research Report Document

<http://www.ofcom.org.uk/research/technology/overview/techrandd0506/report0506.pdf>

Wireless Telegraphy Act 2006 receives Royal Assent

http://www.southgatearc.org/news/november2006/wt_act_royal_assent.htm

Development of an Automatic Monitoring System Demonstrator

<http://www.ofcom.org.uk/research/technology/events/rd2005/randdpresentations/amdatasheet.pdf>

Development of an Automatic Monitoring System

<http://www.ofcom.org.uk/research/technology/events/rd2005/randdpresentations/monitoring.pdf>

MASS Autonomous Interference Measurement System (AIMS)

<http://www.mass.co.uk/consultancy/AIMS.pdf>

Radio Licensing Centre closes

The RSGB has belatedly learned that the Radio Licensing Centre closed down on 22 November 2006, and will no longer accept licence applications. Any applications they receive between now and 1 December 2006 will be forwarded directly to Ofcom.

The RSGB advises all amateurs planning to either renew or apply for their licence to wait until 1st December 2006. They should then make an electronic application to Ofcom in order to receive their free licence.

CARS Echo Link - Part 2.

Martyn G1EFL M3VAM M0VAM

I thought I would give you an update on how I am getting on with this new mode for me. Since the last instalment, I have been asked by various people several questions regarding equipment etc that I use.

My main radio I use at home is a Yaesu FT-2800M rig. I normally only use 10watts but the radio is capable of 65 watts I have a Yaesu VX5 Handheld which I use at 5 watts, however after a little while the metal case becomes very hot and it is difficult to hold. (Could be good for cold conditions)!

I have treated myself to a new Handheld an Alinco DJ-195 price £99.00. It has a maximum of 5watts and is very easy to use, if you read the instructions first! However the aerial that came with it is a small Rubber Duck, which I found was not very good. It seemed to be rather deaf. However, I found another aerial and attached that to the radio and it is 100% better. I have been complimented on my audio. This was by a mobile station in Manchester in QSO with Kerry KC2QFJ, in St Louis USA, who also complemented me on my audio.

At home I use a vertical fibre glass aerial as a base station. It is a ½ wave and is approx 40 inches long. It is made by Moonraker and has a gain of 3.5dBd. Price £24.92. This aerial does not have any ground plains so there is no tuning to be carried out just set up and go. You could easily slip it in the boot of the car as it takes up no space at all. I have a tripod and small mast which I use to put the aerial on. In fact, it is a lighting stand and is available from Maplins. You could also attach a small 2m beam to the mast as used by SOTA.(Summits On The Air) or even a small HF Vertical.

If you wish to make a contact in USA, for example, you would need a Node number for the area you wish to contact.

Firstly, what are Node numbers and where do you find them?

Node numbers are four, five or six digits long. If you know the node number of the station/area you want to connect to, you can usually punch it in directly on the DTMF key pad of your radio, and then call CQ.

However, first listen to be sure the frequency is not in use. Once you have finished your QSO you must log off and to do this you hold down the PTT button on your microphone and press the # key.

A good source I found for Node numbers is a book that has been compiled by G4WLI Peter, which lists Node numbers for many stations around the world. Contact Mike G0UKM direct for further information and cost of the book. Another good and useful place to obtain node numbers is at <http://www.echolink.org/> and also check out <http://www.echolinkmap.org/>.

I hope the above may have wetted your appetite a little to have a go on Echo Link. Its great fun and all you need to start with is a Hand Held, and you will be able to work the world on 5 watts or less if you are in range of your local Echo Link Repeater/Node.

Enjoy yourself.

Martyn. G1EFL

Updating Microsoft Windows, Setting Norton Anti Virus & Internet Explorer 7 by John G8DET

Microsoft advises updating Windows regularly. Most of them are Patches & Fixes to improve security and block "holes" in their software. However, a number of situations have been identified which maybe of interest to you. Windows has a number of download options, which typically are: -

- a) Automatic Download
- b) Notify me before Downloading & Notify me again before Installing
- c) Turn-off Automatic Updating - I want to Update Manually.

Option c) is the best as some of the Updates can be quite big (26MB) and they can cause problems with Dial-Up & AntiVirus (AV) Programs like Norton AV.

Norton and, it appears most, if not all, AV Programs can consider parts of a Microsoft Download to be a Virus and depending on it's settings, delete it. This leaves you with an incomplete Download, which in a few known recent cases has stuffed computers completely!

It is recommended you chose a time of day when you can concentrate on downloading. Before you give the "go-ahead" for a Windows Download, disable your AV. Once you have received the Download, Log-Off if on Dial-Up or pull out the Modem/Router lead if on Broadband. Let Windows Install the Up-Date & when everything looks as though it is running in a stable manner switch on the AV and reconnect the Modem/Router. This may sound a pain, but it is based on recent hard evidence.

NB. To Manually Update: - START ->[ALL PROGRAMS] -> WINDOWS UPDATE.

Norton AntiVirus Settings.

Click on Norton Options -> System Settings. Typically the Options are: -

- a) Automatically repair the infected file (Recommended by Norton but NOT by G8DET)
- b) Try to repair then Quarantine if Unsuccessful
- c) Deny access to the infected file
- d) Ask me what to do (G8DET's recommendation on the basis you want to know what is going on - Quarantine or Delete depending on the circumstances - or nothing if in the middle of a Download!)

Click on Norton Options -> E-Mail. Typically the Options are: -

- a) Scan Incoming (Norton & G8DET Recommended)
- b) Scan Outgoing (Not needed if you run your own computer and you do not accept Trial & "passed on CDs". Slows down your Sending and can cause conflicts if on Dial-up.)

Norton "How to respond when a Virus is found".

Typically the Options are: -

- a) Automatically repair (Norton recommended, NOT by G8DET)
- b) Ask me what to do (G8DET Recommended on the basis you wish to know what is going on)
- c) Repair then Quarantine, if successful
- d) Repair then silently Quarantine, if Unsuccessful
- e) Repair then silently delete if Unsuccessful

As far as G8DET is concerned, any Virus ridden E-Mail should be Quarantined then binned without repair or access, but he does want to know what is happening.

Microsoft Internet Explorer 7

Internet Explorer 7 is also now available as a Download. Brian, G3CVI says it took about 10 mins on Broadband so it is not recommended for Dial-Up users. It may come from Canada.

IE7 will only work on Windows XP, it will not work on Windows 2000 (W2K) or Windows 98. Is it worth having. Those who have contacted CARS say "Yes".

If you are a "Favourites" user, you will enjoy the opportunity to click on a name, open up a "New Window" and work from that. Previously, to open a new Window meant "File...." Etc.

If you use BT as your ISP you may get Error Messages (according to the BT Pension magazine) as it is not compatible with the "Help" sections of BT Bundled Software.

Clearly many users of legacy operating systems may wish to upgrade in order to get the more useful IE7 features such as Tabs and support for RSS newsfeeds.

Trevor, M5AKA tells us that Firefox Version 2 is an alternative to IE7, which offers all these features and is free. It can be downloaded from: - <http://www.mozilla.com/en-US/firefox/>

The download takes just 30 seconds on Broadband and is 5.6 MB. However it is very heavy on RAM when in use with a few Tabs open, typically 300 MB. This can be reduced but you have to know what to do! Firefox is liked by many that find IE poor for a number of reasons.

Please inform CARS of your experiences.

The End of CB as We Knew It... . ?

Ofcom held a consultation to amend the Wireless Telegraphy Act Exemption Regulations to allow additional apparatus to operate in the UK without the need to hold a WT Act licence. The scope of the changes to the regulations were detailed at <http://www.ofcom.org.uk/consult/condocs/wtexemption/summary/> and come into force on 8th December 2006. In summary the changes are:-

- Deregulation of Citizens' Band (CB) Radio;
- Authorisation of "Micro" FM Transmitters on a licence exempt basis in accordance with the new ETSI standard; (eg iTrips for iPods etc)
- Authorisation of Digital PMR446
- Narrow band use of 24GHz for short range radar (including automotive applications);
- 10GHz Radar Level Gauges;
- EU Commission Decision of 11 July 2005 on the harmonised use of radio spectrum in the 5GHz frequency band for the implementation of wireless access systems including radio local area networks (WAS/RLANs) 2005/513/EC:

The above is most significant for marking the end of CB as we have known it for decades. Standard 4W sets no longer need a CB licence – nor will CADS users such as Mosques, Churches and Theatres etc who can now share the same band for Community audio

It also unfortunately sees further encroachment into the amateur bands by low power exempt devices

Newsletter edited by Geoff G7KLV with help from Colin G0TRM.