



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 547

Web Address: www.g0mwt.org.uk

October 2011

This Month's Meeting – Tuesday, 4th October, 7.30pm at the Marconi Club **"Annual General Meeting" by CARS Members**

Another year has gone by and it is time for another CARS Annual General Meeting.

This is the time to have your say and to tell the new Committee what YOU would like to hear/see/do during 2012. A number of events are already set in stone – Titanic, Marconi New Street Factory 100 years ago and something to do with Sport in July! We also have to set the Subscriptions for 2012 – do you think they should go up or stay the same? Have your say.

Mark will have a table at the back and is willing to program anyone's VHF/UHF Radio – please ensure the battery is charged before you get to MASC.

John G8DET will show the Scouts in QSO with the ISS during the Jamboree at Hylands Park and a selection of photographs taken during the year – not everyone will have seen them. If YOU have a series of nice photos (about 1 to 1.5MBytes each) please put them on a "Memory Stick" and bring along.

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

See you there.

Dates for your Diary

Sun 25 th September	CARS – Operating from Sandford Mill for Science and Discovery Day 10am-5pm
Wed 12 th October	CARS Committee Meeting – Danbury Village Hall – 7.30pm. All welcome.
Thurs 13 th October	Essex Repeater Group AGM - Danbury Village Hall - 7:30 for 8pm. All invited.
Tues, 11, 18 and 25 Oct	CARS Night time Nets starting at 8.30pm.
Thursday, 27 th October	CARS – Start of Advanced Licence Course. See page 7.
Tues 1 st November	CARS Meeting – "IOTA" by Martin Atherton, G3ZAY
16 th November 2011	Anglia TV – time to rescan again - Mux D (ARQ B) changes frequency
Sat 3 rd December	CARS Christmas Lunch – 12 for 12.30pm. TBA.
Tues 6 th December	CARS Meeting at MASC - TBA
Tues 3 rd January 2012	CARS Meeting – By CARS Members – HF Tuners for M3s and M6s.

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 callsign, postal or eMail address, etc. Email 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) GB3DA: (3rd) GB3ER: (4th) 1.947/50: (5th) 28.375. All MHz +/- QRM.
Net Controller for Oct - TBA. Thanks to John, G8DET & Geoff, G3EDM who did it for Sept.

Last Month's Meeting:- "Programming your Modern VHF/UHF Rig" by CARS Members.

A number of CARS Members mentioned to the Committee that having bought modern rigs – they are faced with making them work. This is not because they are faulty or complex but simply understanding the Chinglish or Japanese Manuals and procedures is a challenge. Norman, M0FZW introduced the subject and presented a PowerPoint Presentation in which he featured a number of the popular rigs. See this in detail on the CARS Web Site.

Norman listed the typical rigs available:

- 2m only; Wouxun KG-679E @ £60; Moonraker HT-90E @ £60; TYT-800 @ £50 and FDC FD-160A @ £25.
- 70cm only; Wouxun KG-679E/U @ £60.
- 2m/70cm; Baofeng UV-100 (with USB cable) @ £60; Quansheng TG-UV2 @ £82;
- Wouxun KG-UVD1P @ £93 and a TYT UVF1 @ £99.
- 4m only; Wouxun KG-699E @ £80.
- 4m/2m; Wouxun KG-UVD1P/L @ £99.
- 4m/70cm Wouxun UDV1PL @ £99.

Norman pointed out that with today's repair workshop labour costing typically £50/hour they were really a "throw away" item. Surely they will worry the established Japanese amateur radio manufacturers.

Advantages – Cheap – Very portable – Memories – Choice of Frequency Steps – CTSS - "Repeater Ready" – Lithium Batteries and free Configuration Software available. He tabulated the actual working frequencies available – sometimes with the Band II FM as well as the Marine Band. There are a number of helpful Forums for most Chinese rigs. Identical Rigs can be cloned.

Disadvantages – Wide frequencies, some well outside those Legal for Radio Amateurs.

Problems identified and the reason for having this meeting – difficulties in Programming the rigs.

The Configuration Software is downloadable from the Web in a compressed form as a "rar" file.

These files can be decompressed using the free-ware rival to WinZip known as 7Zip from <http://www.7-zip.org/>

Norman said that one problem with Windows is that it allocates a Port between 1 and 256 each time a USB Plug is connected. Unfortunately this primitive Chinese Software requires a Port between 1 and 4! It is often necessary to free-up a PC USB port in that range to allow the program to read and write to the transceiver. To uninstall a previously dedicated port on Win XP use: **Start/Settings/Control Panel/System/Hardware/Device Manager/Ports (COM & LPT)**

The "two plug" Kenwood based USB to Transceiver cable are not all interchangeable. We know from experience that the dedicated Wouxun cable will not interface with the TYT. Although I have not measured signals on the interfaces I suspect that the problem is caused by logic voltage discrepancies. The cable I bought on Ebay from Hong Kong for the Quansheng (the picture in the slide show) uses a "Prolific" chip and has been successful with every radio tried.

Some UK retailers sell the transceivers cheap enough but over-price the software/cable combo. How can you be expected to pay £60 for a radio and then a further £20 for the programming kit when the cable can be bought for £7.00 and the software downloaded and used for free? If the RS232 cable option is the only one available it is possible to buy a "RS232 to USB adapter" on eBay for £2.00, however there is a chance that you may incur the voltage compatibility problem above. Search eBay for "RS232 to USB adapter".

To conclude Norman said he particularly liked the Yaesu Software from Bob Freeth, G4HFQ.

<http://www.q4fhq.co.uk>

Mark, M0IEO then took the floor and showed on the screen the practical ways of how to prepare the file to program a rig. As he went through the many parameters, he made comments of what to look out for or to be thankful for.

By far the easiest way to programme one of these radios is by computer, but you will need to obtain a couple of bits of hardware first. You will need the USB to Radio connector. This lead has an USB connector on one end and the double jack plug connector and plugs into the speaker and mic connections on the side of the radio. Be careful when buying this as they all look the same but they are voltage sensitive to the make of radio and the Wouxun lead will not work the TYT Radio.

Next you need the software for the radio and for the connection lead. The Driver for the USB connection will come with the lead, but the software for the radio is best if downloaded from the manufacturer's website. The disk which comes with the radio for some reason does not usually work as well as it should.

Now you are ready to go. Plug the radio into the computer and open the software, you will be greeted with the programming page - from here it is an easy job to input the Tx and Rx frequencies for the repeaters and channels you use every day.

First you will see on the screen the programming home page and on the left hand side the words "*Channel Message*". Left click on this and the programming page will open, if you already have information stored in your radio then a click on "*Programme*" in the task bar at the top of the page and this will import the stored information onto the screen from your radio ready for you to edit or delete as you wish. If there is no information stored in your radio, then now is the time to create some...

- i) Click on the first box in row 1 and enter the RX frequency of the channel you want to store in the radio, I will use GB3DA for this example, so enter 145.725 in the RX box.
- ii) Next is the TX frequency, so in this box enter 145.125. All Repeaters now work with a CTCSS tone to open them, so the next two boxes allow you to set this, so in the "*Decode CTCSS and Encode CTCSS*" boxes, type in the CTCSS code for GB3DA which as we all know is code "*H*" or 110.9.
- iii) Next is the output power, I set mine to "*HIGH*" as I live a fair way from Chelmsford, but you may well be able to use a lower setting, there are three to choose from and remember, lower output power means longer battery life for the radio.
- iv) Now is "*Scan Add*", this is where you decide if you want the radio to scan through the channels you are programming into it - I prefer not to scan the channels, but if you want it to, click on the box and you will be given the option to scan or not.
- v) Next is the choice of "*wide or narrow channel*", all repeaters now use the Narrow FM Bandwidth setting of 12.5 KHz. So into this box we click "*Narrow*" setting - so as not to cause interference to adjacent channels or distortion.
- vi) Now we set the busy light on the radio, this will light the green LED on the top of the radio if the channel you are listening to is in use, this light is driven by the squelch gate in the radio so it is optional whether you use it or not. Remember what I said about saving battery power, the choice is yours, on or off, you decide.
- vii) Nearly there now. You have the option of naming the channel you have just programmed into the radio, so why not call it GB3DA, as it makes life so much easier when scrolling through the channels you have programmed into your radio when you can see the name of the repeater you are tuned to. So, that is the first channel programmed into your radio, now of course you will need to transfer all that information to the radio, just click on the "*Programme*" button in the taskbar at the top of the page and you will see the information being programmed into the radio. The green LED on top of the radio will flash on and off rapidly to confirm data transfer and the job is done. You have done on just a couple of minutes, what would have taken about 15 minutes to do on the keypad on the front of the radio.

There are other settings you can customise on the radio by using the programming package, but I will leave you to discover these, they are in the second and third selection buttons in the programming package and cover things like time out timer, control layout for PTT and Monitor buttons etc.

If you are still having trouble programming your radio, or just don't fancy having a go, there will be the opportunity for you to get your rig programmed at the CARS AGM, October 4th. I will have my computer and leads with me so if you need help or are just interested in how to, I can give a live demonstration after the AGM or programme a rig for you. Also, if you know of someone with a similar rig to yours - it can be Cloned.

Andy Tyler, G1GKN then took the floor and explained with the use of a series of PowerPoint slides how he controls the FT817 Rig (or most other rigs) using Ham Radio Deluxe. It was a revelation to a number of Members who only thought HRD could be used as a Logging Program. See the CARS Web Site for the full version or his presentation.

Post Meeting Note – it is now understood HRD has changed hands and it is thought the new owner wishes to heavily charge for its use – watch this space.

If you know of other methods of programming rigs – please contact The Editor.

John G8DET.

Hands-on with the Baofeng UV-3R Handheld by CARS Member, Peter Sipple, 2E0PSL

As you'll have read elsewhere in this month's newsletter, the September CARS meeting focussed on the raft of new handheld devices now available to amateurs in the UK. Mark M0IEO and Norman M0FZW outlined that the cost of getting on-air with a 2m amateur rig is now lower than ever. The handheld device that's catching everyone's interest at the moment is the UV-3R from Chinese manufacturer Baofeng, and the main reason is the price – at the time of writing, this dual-band radio is available for just over £28, including delivery from Hong Kong.

You might think that this ridiculously low-priced radio means some compromises to functionality, but here's what the UV-3R boasts:

- Coverage of 136-174MHz and 400-470MHz inc Offset handling for repeater operation
- Dual-channel monitoring
- VOX (with supplied earpiece and mic)
- Support for CTCSS / DCS tones
- 1500mAh Li-ion battery (8 hours)
- Reception of FM broadcast radio (87-108MHz)

The UV-3R is a tiny device, measuring 81 x 47 x 23mm, and weighing 130 grams. It's smaller than a pack of playing cards, and could be mistaken for a kid's toy walkie-talkie at first glance, but it's actually a very competent radio, and ideal as a backup portable, or for the first-timer to the hobby looking for a cheap entry-level radio.

There are a few compromises. Firstly, many of the handhelds on the market are 5 watt devices, and this has an output power of 2 watts. The UV-3R is a dual-band rig, but doesn't come with a dual-band antenna as standard – it ships with two antennas, one for 2 metre and one for 70 cm operating, meaning you'll need to carry both if you're planning to use both bands. An optional dual-band antenna can be purchased on eBay for around £4, but some online reviews rate performance of this antenna as disappointing. One other factor worth mentioning is that volume and squelch don't have their own dedicated rotary controls. They're fairly easy to alter, and have preset steps, but adjusting these key features on the fly is not as convenient as having dedicated controls.

The lack of a numeric keyboard may be an issue for some too, and scrolling from one end of the band to the other using the rotary control is not ideal. For that reason, it pays to program some of the memory presets early. Fortunately, the supplied 36 page manual is surprisingly good for a Chinese device, and setting up repeater offsets and tones is fairly straightforward, with the interface being similar to that found on Yaesu handheld radios. This is hardly surprising, given the strong physical similarity between the Baofeng UV-3R (£28) and the Yaesu VX-3R (£169). Should the idea of programming the radio without the aid of a numeric keyboard not appeal, it's possible to program the UV-3R from a PC, using an optional lead and software, which will set you back around £10.

The addition of the FM radio is a nice touch, handy for when the bands are quiet, and the radio can be set to switch from FM broadcast reception to an amateur channel when that channel's squelch is broken. As with most Chinese imports, the radio also has an LED torch on the top, presumably for use as an Aldis lamp should RF fail. The UV-3R also has a 'panic' button. Holding this down for a couple of seconds generates an ear-piercing warble, which caught me off-guard when testing the radio, and wasn't easy to turn off. Also, with another button-press, it's possible to get the warble to transmit on the selected frequency - something which will no doubt make the operator very unpopular.

As for operating with the Baofeng UV-3R, my initial experiences have been very positive. The female SMA connector allows for easy connection to my car mag-mount, and I can hit GB3DA mobile from the more accessible parts of my QTH of Southend, even at 2 watts. The audio quality from the speaker is adequate, and audio from QSOs on the radio has been described as "great" both on the repeaters and simplex. At £28, it's hard not to give this radio a strong recommendation. The Baofeng UV-3R is supplied with a belt clip, docking station, 5V mains charger (with UK adapter), two antennas, battery, lanyard, and a mono earpiece with inline mic. On the recommendation of Jim 2E0RMI, mine was obtained from the *Mega409shop on eBay*, and it was slightly cheaper to go through *eBay.com*, and not the UK site.

For pictures of the Baofeng, links on where to buy one, a video un-boxing, help with programming one from a PC, and details on how to set the radio to access the Essex repeaters, go to <http://www.essexham.co.uk/baofeng>

If any members have any questions about the Baofeng, they can email me at 2e0psl@essexham.co.uk

This Month's Radio Sport (Contests) - All in BST (Local times)

1 Oct – 1.2GHz to 2.3GHz Trophy – 14:00 to 22:00 hrs
2 Oct – RSGB 21/28MHz – 07:00 to 19:00 hrs
8/9 Oct – Oceana DX – CW – 24 hrs
16 Oct – Second 50MHz – 09:00 to 12:00
29/30 Oct – CQWWDX – SSB – 24 hours
1/2 Oct – 432MHz to 248GHz IARU – 24 hrs
1/2 Oct - Oceania DX – SSB – 24 hrs
12 Oct – 80 Metre Club Sprint, CW, 19-20:30 hrs
27 Oct – 80 Metre Club Sprint, SSB, 19-20:30

For further information please email Steve G4ZUL contests2011@g0mwt.org.uk

Steve, G4ZUL

CARS Propagation Forecast for this month – 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!

Asia: Dhabram	around 16:00 on 24.9MHz for 96 percent of days, with fair signals.
Oceania: West Samoa	around 12:00 on 18.1MHz for 83 percent of days, with poor signals.
Africa: Johannesburg	around 20:00 on 10.1MHz for 90 percent of days, with fair signals.
S. America: Caracas	around 22:00 on 10.1MHz for 69 percent of days, with poor signals.
N. America: Saskatoon	around 08:00 on 10.1MHz for 81 percent of days, with poor signals.

Gwyn, G4FKH

Sandford Mill - Science & Discovery Day on 25th September using GB100MWT.

CARS were invited to provide live Amateur Radio and operated the following: - Brian, G3CVI and others started off in the Marconi Hut with SSB and continued transmitting until 1.30pm. During this time Band conditions were good and the equipment responded well. Contacts were made with Japan, America and Italy to name but a few countries. At 1.30pm Gwyn, G4FKH and Steve, G4ZUL transmitted from the Marconi Hut using CW (Morse). Later in the afternoon they were joined by Vice President Charles, G0GJS and again worked a number of excellent countries.

Mark, M0IEO unfortunately could not attend due to family reasons so Peter, G3SUY brought his gazebo and erected it by the Tea Hut. In it he provided a table for his Marconi 1154/1155 combination connected to his 80m Dipole supported by his 60ft high spider pole. <http://www.g0mwt.org.uk/leaflet-1154-1155.pdf> is a link to the CARS Web site where a three page description about the 1154/1155 is located. It is a 3MByte PDF File.

Additionally, Peter, G1FOA erected his 3 element 4m aerial and took part in the PW 4M Contest from 1pm to 5pm. However Sandford Mill seems to not only be a 70cm and 2M Black Hole to RF but to 4M as well!

Only a few contacts were made but there was good humour at all times and it created great interest. Colin, G0TRM manned the Mechanical Morse demonstration on the Mezzanine Floor and was generally supplied with a steady stream of children aged up to 90 years old interested in the layout and were able to type their names in Morse code on a paper tape and send it from one machine to be read on another. He was relieved during the afternoon by Peter and Richard Meadows, M0ZBU and M0SBU whose help was most appreciated, together with young Luke Halsey, M6LNT who very ably assisted with the procedures.

Many members of the public also visited the Barn and enjoyed the professional presentation by Steve Allman's shows including The Bubble Show and the Scientific Show who was using the CARS UHF Radio Microphone to great effect with an amplifier made by Geoff, G7KLV. A first rate day with brilliant weather until 4pm when it came over cloudy.

Thanks to Brian, G3CVI; Patrick M0XAP; Gwyn, G4FKH; Steve G4ZUL; Charles G0GJS; Peter G3SUY; Norman, M0FZW; Peter G1FOA; Colin G0TRM; Peter and Richard M0ZBU and M0SBU for their work and other CARS Members who attended to make the day such a success. Thanks are also due to David G3SVI and Myra M0MYR who do such a good job meeting the public and signing up new CARS Members.

It was nice to welcome so many SEARS Members and other Radio Amateurs from Black Notley and other parts of Essex. Thanks to the Friends and Volunteers of Sandford Mill for their hospitality Dr Geoff Bowles and Trish for their involvement.

John G8DET

A Personal QSO

In the course of a /MM expedition with Colin, M1OCN in his ferro shack (Ketch) in Suffolk recently we visited the Bawdsey Radar Station. As I signed in, the next in the queue looked over my shoulder and made a sound. It turned out he was my class-mate in the next desk when I was at school and had been out of contact for 50 years. We caught up with all the news later in the day at the local Yacht Club as he was on the next boat on the pontoon. No radio involved but a really special contact.

Tony, M0ORF, Maldon.

6 Metre News

On 4 April 2012 analogue TV broadcasting transmissions in Portugal will be switched off on completion of the digital changeover – now extended the upper limit of the 6 metre amateur band, 50 to 52 MHz. Channel 1, VHF TV turned off in Hungary after 54 years of good operation. Have a look here:- <http://www.youtube.com/watch?v=Opktdjnnqil>

Justin, G0KSC – see his new 6M design ;- <http://www.innovantennas.com/owa-r-benefits.html>

Trevor, M5AKA.

Essex Repeater Group 2011 AGM

The Essex Repeater Group Annual General Meeting will be on Thursday 13th October at the usual Danbury Village Hall venue - 7:30 for 8pm. This will be the first AGM since the sad passing of ERGs Chairman, Mike Wheaton, G4ZPE - Zipy. As per recent years, the event will also feature a Members' raffle, FREE Refreshments and items for sale. It is of course an excellent opportunity for renewing subscriptions and offloading your own surplus kit.

Murray, G6JYB

The Essex CW Amateur Radio Club (ECWARC) Ambassador Programme

The Essex CW Amateur Radio Club (ECWARC) aims to try and connect with more members via local clubs.

To this end, they are looking to appoint so called Ambassadors for the CW mode in as many clubs as possible who will be aware of ECWARC and be able to disseminate CW related news in both directions. More details will be published on the news section of the ECWARC website.

ECWARC has recently joined the online social media network Twitter and occasionally Tweets about club activities and other related CW matters. If you want to follow this then the Twitter ID is (unsurprisingly) @ecwarc You can also let us know what CW activity you are doing via this mechanism.

The regular 80m ECWARC club nets on 3542 kHz \pm QRM at 7.30pm local time continue on the first Wednesday of each month. Net control will rotate amongst members. On all other Wednesdays, a slower speed QRS net will be delivered on an ad-hoc basis subject to availability. It is hoped that those starting out may pluck up courage to join in these sessions for practice and that more experienced members will slow down and assist the newcomers.

Also on an ad-hoc basis, according to availability, the DX nets continue on 17m on the first Tuesday of each month on 18.082 MHz \pm and on 20m on the third Tuesday of the month on 14.042 MHz \pm . Both nets (on 17 & 20m) start at 1900 UTC. Please listen/call in on these if you can.

Essex CW Amateur Radio Club (ECWARC)

<http://www.essexcw.org.uk/>

Email:- [essexcwclub "at" hotmail.co.uk](mailto:essexcwclub@at.com)

Trevor M5AKA

CARS Contacts.

John Yates, has been G1UZD/OH in Finland for the summer and has worked Martyn, G1EFL and Colin, G0TRM. John will tell how he gets there from Essex and how he operates in the next newsletter.

CARS Training – Advance Course

CARS is now taking names for Intermediate licensees wishing to take the Advance exam on Monday 5th December at Danbury. Starting on Thursday 27th October until December 1st there will be a 'fast-track' six-week Revision Course at Danbury. This does assume you are largely prepared and have also been studying at home. Fear not though! The Course is intended to clarify, guide and prepare you.

More information at: <http://www.g0mwt.org.uk/training/> . Please register your interest with Clive G1EUC.

President Jottings - October

My thanks to all who worked so hard to make 2011 such a success.

The CARS Amateur of the Year has been chosen by the Membership and the winner of the Award will be announced at the AGM in October.

Chairman John and the committee have really worked very hard over the past year to make Chelmsford the leading society in the country, but the committee is always looking for new ideas for talks, please put your think caps on so that at the Annual General Meeting we can have a few suggestions.

Carl, G3PEM. President

Replacement Rechargeable Batteries

It has occurred to me that while we are promoting the purchase and use of the latest affordable Chinese transceivers that there may be members who already own a handheld made by one of the Japanese companies but cannot use it due to failed Nicad batteries. Replacement batteries can be hard to find and expensive to replace. Here is an alternative suggestion that may be cheaper than buying a Chinese handheld.

"Strikalite" has many years' experience of both building and refurbishing rechargeable battery packs for a multitude of applications, we specialise in both advising and creating the solution for you. Contact us if you would like our assistance in creating a battery pack or would like any pack you currently have refurbished".

**Strikalite, 3 Laurel Drive, Rugeley Road, Burntwood, Staffordshire, WS7 9BL, England.
Telephone 01543 683122 - Fax - 01543 302054.**

http://www.strikalite.co.uk/prodcat_type/34/ALL/0/Radio_Amateur_Battery_Packs.html

Norman, M0FZW

CARS Nets

As can be seen on the CARS Web Site, CARS Nets have changed just a little in the past couple of months to being Repeater based for VHF with GB3DA on the second Tuesday and UHF with GB3ER on the third Tuesday in the month. However the August, September (and maybe October's) UHF Net was held on GB3DA

John G8DET

And Finally:-

John G8DET edited this edition. Material by Trevor, M5AKA; Steve, G4ZUL; Gwyn, G4FKH, Tony, M0ORF; Mark, M0IEO; Norman, M0FZW; Martyn, G1EFL; Murray, G6JYB and Carl G3PEM.

Closing date for the next Newsletter – Saturday 22nd October.