



# Chelmsford Amateur Radio Society

Established 1936

Affiliated to the RSGB Club Call Sign-G0MWT  
President-Carl Thomson, G3PEM Chairman- Chris Chapman G0IPU  
Treasurer-Peter Davies, M0PSD Vice President-John Bowen, G8DET



Newsletter No 590

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

May 2015

## May Meeting

**Tue 5-May-2015, 7.30-10pm**  
**Oaklands Museum, Moulsham Street**

**Operating Portable**  
**by Charlie Davy M0PZT**

Operating outside the four-walls of the Shack presents a wealth of opportunities (not-to-mention hurdles) for the Amateur. In this talk, Charlie will outline the "Why, Where and How" of portable operating.

If you're restricted at home with aerials or just want to spend some time this summer enjoying the weather and playing radio outdoors, this month's meeting will offer some tips on successful /P operating. On display will be a range of /P essentials and even some freebie items.

Our famous raffle will include a Dipole Kit from SOTabeams (complete with coax/wires) as well as few other portable "knick-knacks" (Wire kite winders and guy rings - for fishing-poles). (£5 value)  
Add-ons to keep your wires tidy & your poles upright).

### Dates for your Diary

Tues 12th, 19th, 26th	CARS - Evening Radio Nets @ 8:00 pm (Local). See Website for details.
Every Monday	Essex Ham 2m Net @ 2000h GB3DA
Tuesday 5 <sup>th</sup> May	CARS Meeting – "Operating Portable" – Charlie Davy, M0PZT
Thursday 7th May	GX0MWT - Operating at Sandford Mill for RMS Lusitania Centenary
Monday 18th May	CARS Skills Night, 7pm Danbury Village Hall
Sunday May-24	W&S Open Day, Hockley 10am-4pm – CARS training present (with ERG)
Tuesday 2nd June	CARS Meeting - "The Bodger's Guide to Microwaves" - John Worsnop G4BAO
Sunday 21 <sup>st</sup> June	GB1JSS Event at Galleywood Common
Tuesday 30th June	Advanced Exam Danbury Village Hall

### Nets

Tuesdays 2000h (12<sup>th</sup>) GB3DA, (19<sup>th</sup>) GB3ER, (26<sup>th</sup>) 1.947MHz  
Also there is the Essex Ham net every Monday @ 2000h on GB3DA

**Net Controllers for May Peter, M0PSD (2/70) & Peter, G3SUY (160m) Thanks to Carl, G3PEM for April.**

### Training - June Exam Opportunity

On Tuesday 30th June. CARS has Danbury Hall booked for an exam-only session. We can accommodate those wishing to take the Advanced exam or those who wish to re-sit any other exams on the same night.

The RSGB deadline for Advance exam reservations is June 9th so please contact Clive G1EUC well beforehand so we can confirm arrangements and get the fees/paperwork submitted in time.

**Murray, G6JYB**

### St George's Day Operating, GB1STG



GB1STG Group Photo

The event went really well with several new faces visiting us. We ran 40m for most of the day along with CW on the higher bands. We made use of my 40m Doublet and Peter, G0DZB used a 30m Delta-Loop. The CARS banner was made use of and we even flew a St George flag on one of the poles.

Previously, we had discounted bringing a small 2m yagi but Peter, G1FOA came equipped with a 3element SOTabeam and a fishing-pole - With it just 15ft up and 50W ssb we worked into Lincolnshire and Staffordshire as well as down to Sussex on FM using one of our Slim-Jim aerials.

For more detail check Murray's input on the [website](#). Peter's video is [here](#).

**Charlie - M0PZT**

*ALL factual content presented is "as received" from the contributors of the articles; the editor accepts no responsibility for its accuracy, errors or omissions.*

# April Meeting

Tue 7-Apr-2015, 7.30-10pm  
Oaklands Museum, Moulsham Street

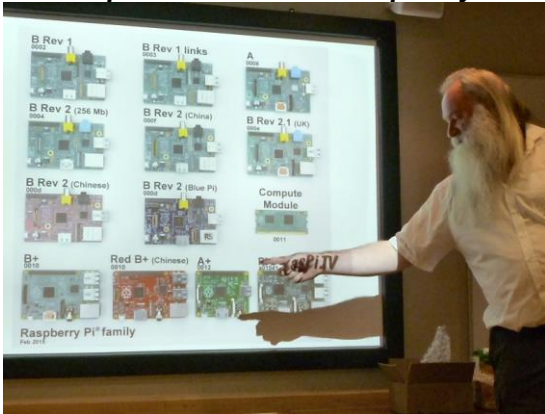
# "Raspberry Pi"

By Peter Onion G0DZB & David Whale

First released in February of 2012, the Raspberry Pi has been a best-selling phenomenon with over 5 million of these low cost credit-card size computers sold. Originally targeted for educational use, a whole community has grown up around it. Peter G0DZB was joined by co-presenter David Whale who is a STEM ambassador and Pi expert. Peter introduced the Pi hardware and accessories in its various guises, whilst after the break David showed its software and how it was used in schools.

Peter explained some of the history and aims of the of project, which was to re-introduce programming skills into schools, as these had declined considerably since the days of the ZX-Spectrum, BBC Micro et al. The Raspberry Pi Foundation owns the designs but relies heavily on RS and Farnell (plus Sony's manufacturing plant in Wales) along with a host of support by the wider community. Since the introduction of the original A and B models in 2012, a series of revisions has led to a number of newer versions.

### Peter explains the various Raspberry Pi models



Peter went through the basics of what is required to get the Pi going (monitor, keyboard/mouse) and gave some tips on powering it - a steady 5v supply is required, not a cheap USB phone charger! One of the many accessories available is a Pi-styled USB hub which relieves the power supply load for USB peripherals.

With the latest Pi2 model just released, Peter explained that with four 900MHz cores and 1GB of RAM, you essentially have a "computer" that can be used for e-mail, web-surfing, music playback. It may not be able to do it all at once, but it is certainly useful as a simple "surf the net" system. Many are used without a screen simply as a file-server, perhaps to distribute music/video around a home network.

The input/output pins on the Pi make it easy to connect buttons, sensors and LEDs which can be used to teach electronics and programming. The Python language is typically used, as well as a system called "Scratch" that encourages youngsters to build programs by dragging, dropping and joining code-blocks to create a working application. With a wide range of sensors available, low-power and compact projects such as weather gauges, wildlife recorders are all within the grasp (and budget) of most. Peter finished by saying that help with coding was readily available through forums, social-media and a growing community of Raspberry Pi "Jams". The latter are regular meet-ups where ideas can be discussed and assistance given.

After the break and raffle, David explained his role as STEM ambassador and how computing and coding in schools had become stagnant since the decline of the BBC Micro and the introduction of the Personal Computer. With the Pi (and cheap electronic accessories) comes the ability to easily transport up to 50 "computers" for lunchtime "Pi Club". The CARS raffle was rather popular with two Pi computers as prizes.

*The top CARS Raffle Prize was a new Pi-2*



This turned out to be a very popular talk for our 60+ attendees and it was nice to see so many visitors and Foundation/Intermediate licensees attending.

**Thanks to Charlie, M0PZT for this report.**



*A CARS tradition - our speakers David and Peter with their CARS Mugs*

## April Skills Night

Monday April 20th saw another good turnout of over 60 people attending CARS Skills Night at Danbury Village Hall - some having travelled quite a distance. Topics included:-

- Data Mode Demos
- Arduino Projects
- Essex CW Club
- Quiz - very testing!
- Meet - CARS, ERG, Essex CW, Essex Ham
  
- Construction - Make a Slim Jim
- Radio Programming
- Cables & connectors
- EchoLink - by RF or Internet
- Ask Uncle Jim - Beginners Corner

For more details check the website [here](#).

## Reviving Old Rigs - Comment resulting from John Rowe's article in the April Newsletter.

I am sure there are a lot of newcomers that find old electrolytics a bit of an oddity to deal with, especially now that dielectrics have become so reliable. Once you have had one good explosion in the shack, you are forever wary!

I resurrected an old Eddystone EC10 receiver and had the same doubts about the electrolytics, although the EC10 is a transistor set at low voltage.

Most of the advice available targeted the old Germanium transistors to look for leaks, but I decided that there was no point in looking at the signal path until all the coupling/decoupling was reliable, so I listed and ordered every single electrolytic. They are cheap enough!

I used a club night to change them and there was great interest in using an analogue multi-meter to show the difference between old and new components with the charge rate voltage from the meter battery. Very few understood how an electrolytic actually works until you can actually see this on a meter. Don't forget the actual voltage is reversed to the colour of the leads on the Ohms setting of a Multi-Meter.

Needless to say the receiver performed remarkably well after the replacement, with no leaky transistors.

Another mod I made was the addition of a voltage regulator to the power supply as the frequency used to fluctuate with the current drawn by the audio stage. I can now quite happily read SSB on it with the BFO. One additional point about adding a regulator to the EC10 - you have to find an 'upside down' one, as the transistors are all PNP

I changed the dial lights to LEDs - slightly yellow ones for age effect and I now have a decent bedside radio.

**Malcolm G8AFS – Ex Marconi, Chelmsford.**

## The Lusitania

The RMS *Lusitania* was owned and operated by the Cunard Company. Her keel was laid on 16 June 1904 and she was launched on 7 June 1906. She was the largest, fastest, and most luxurious ship in the world at the time of her launch, although she was soon eclipsed in size and speed by her sister *Mauretania* and in size and luxury by rivals *Olympic* and *Titanic*.

*Lusitania* was making her 202nd crossings when torpedoed by the U20 on 7 May 1915, off the coast of Ireland and sunk in 18 minutes. Of the known 1,960 people on board, 767 survived and 1,193 perished. Four of those survivors died in the following months, bringing the numbers to 763 survivors and 1,197 victims.

The wreck lies in 300 feet (91 meters), approximately 11 miles (18 km) south of the Old Head of Kinsale, Ireland.

Radio Amateurs throughout the World will commemorate the fact that the Marconi designed and manufactured wireless equipment, built in Chelmsford enabled the *Lusitania* to transmit a SOS which resulted in ships rescuing the survivors.

CARS will be operating from Sandford Mill on the 7<sup>th</sup> May from 10am to 4pm using the Club Call-sign GX0MWT. All CARS Members and Marconi Veterans welcome to attend.

**John, G8DET.**

## Advance Notice



**WATERS & STANTON**  
Essex's Ham Shack

**25TH ANNUAL OPEN DAY**  
Sunday 24th May 10am - 4pm  
In aid of British Wireless for the Blind Fund

SERVICE DEPT, RSGB, HUGE DISCOUNTS, FREE REFRESHMENTS  
LIBRARY PARKING, REGIONAL CLUB OF THE YEAR PRESENTATION,  
CLEAR OUT, TRADE EXHIBITORS, LOCAL GROUPS,  
LECTURE STREAMS AND NEW MODELS FOR ICOM, YAESU AND  
KENWOOD!

**Exhibitors:**  
bhi, Chelmsford ARS, Essex Repeater Group, Icom,  
InnovAntennas, Kenwood, RSGB, Book Stall, Yaesu.

[@wspic](#) [/WatersandStanton](#) [/WatersandStanton](#)

We offer you a warm welcome to our annual Open Day, which features special low prices you won't see in our adverts! Meet old friends, have a natter, a bite to eat and visit the lecture streams.

Why not make it a day for the family?  
Take a leisurely walk in the famous Hockley Woods, (entrance by The Bull Pub) or enjoy a meal at many of the local cafes - our staff will be happy to direct you to suitable venues.

**We look forward to seeing you!**

Waters and Stanton, 22 Main Road, Hockley, Essex, SS5 4QS, www.wspic.com  
Tel: 01702 206 835 Fax: 01702 205 843 Email: sales@wspic.com



## Presidential Jottings

By the time this is published CARS would have organised and held several operating events and I hope that all those who attended these days enjoyed the experience. Thanks to all of those volunteers who put the time in organising these days for CARS.

Last month's meeting was on the development of the Raspberry Pi and its use in schools. Those who want some idea of the uses in amateur radio should look at the recent series of articles in Rad Com.

The next meeting is on "Portable Operating" so this should be an interesting subject for those wishing to operate portable during the summer months.

The raffle prize will be a kit to assemble a portable aerial system.

**Carl, G3PEM**

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## Free to a good home



**A G-Whip 9:1 UnUn** sealed in a weather proof box with stainless steel fittings & SO239 socket; also with 65feet of cable for the

antenna. I put this into the box & organised the cable BUT never used them as I put up a resonant antenna instead.

### **Anderson PowerPole PP30 connectors**

Both red & black. Rated 30A and complete with 2 unused insertion tools.

Collection from Basildon Alan, G0RTH

[alan.q0rth@gmail.com](mailto:alan.q0rth@gmail.com)

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## For Sale



### **Shure 522 dual impedance unidirectional microphone**

Taken from the box; a plug fitted and used on air for one day only then repacked in its box.

I bought this as a special order to use with my new FT-DX1200 as I'd used a 444 with an older radio in

the past and thought the audio shaping of that microphone was excellent for ssb use.

I fitted a 4 pin round plug (as I had an adapter I'd made for 4 pin to 8 pin). Wiring is Pin 1 Shield and green side of mic; Pin 2 mic live; Pin 3 ptt; Pin 4 Switching ground. Thus it has been wired as an unbalanced mic with separate ptt switching.

I tried this on air after setting audio levels into a dummy load and received many complimentary reports on the transmitted audio.

However, I found that having used an Adonis AM-308 for many years I'd become used to the soft electronic ptt switching and couldn't get used to the "clunky" ptt lock on this microphone especially with arthritic fingers!

Hence I've gone back to the Adonis.

Therefore, this is for sale as a new condition microphone in absolutely immaculate, fully working condition and I'll take a loss on the price.

This cost me £156 delivered ([check the UK site bought from](#)) and it is a chance of a bargain with local delivery possible (15 mile radius of Basildon – otherwise £5 economy delivery or buyer collects) and, if it's of use to you, I'll include the adapter wired for a Yaesu 8 pin round plug.

**Offers over £50 invited, Alan, G0RTH**

[alan.q0rth@gmail.com](mailto:alan.q0rth@gmail.com)



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***Closing date for items in the next Newsletter – Sunday 24<sup>th</sup> May.***

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## International Marconi Day Activity, 25<sup>th</sup> April



*John G8DET about to give his talk at Sandford Mill during IMD – Photo Charlie, M0PZT*

The full report is available on the website [here](#).

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## **And Finally:**

**Remember, any articles you feel may be of interest to members are welcome as are details of items for sale or wanted. Send to [cars.editor1@gmail.com](mailto:cars.editor1@gmail.com).**