



# Chelmsford Amateur Radio Society

Established 1936

Affiliated to the RSGB

Club Call Sign-G0MWT

President-Carl Thomson, G3PEM

Chairman-John Yates, G1UZD

Treasurer-Brian Thwaites G3CVI

Acting Vice Chairman-Geoff Mills, G3EDM



LOTTERY FUNDED

Newsletter No 574

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

January 2014



## *A Happy New Year to all our readers*



### This Month's Meeting

**TUESDAY, 7<sup>th</sup> January. Doors open 7pm for 7.30pm start, with 10pm finish.  
OAKLAND'S MUSEUM, MOULSHAM STREET, CHELMSFORD, CM2 9AQ**

***"Building a Remotely Operated Station"***

**John Regnault, G4SWX**

Technology is always moving forwards and Remote Operation of an Amateur Radio Station can now be within the reach of most people. However things are not always as easy as they might first appear and remote operation can introduce many new issues and problems. In the talk John will review both the regulatory and technical issues highlighting some of the pitfalls. On the technical side John will highlight the importance of maintaining full control of the station with the possibility, internet permitting, of a live demonstration.

Carl Thomson, G3PEM and James Beatwell, 2E1GUA will run the Raffle.

### Dates for your Diary

Tues 14 <sup>th</sup> , 21 <sup>st</sup> , 28 <sup>th</sup> Jan.	CARS - Evening Radio Nets @7.30pm (Local). See Website for details.
Every Sunday	CARS - Backnang (Germany) Net at 2100 (UTC) on 3.750MHz +/-QRM. Peter DK7SP chairs it - please join in as he's feeling lonely!
Every Monday	Essex Ham 2m Net @ 2000h GB3DA
Thursday 9 <sup>th</sup> January	Foundation Course starts 1900h Danbury Village Hall Morse Class, 1900h The Bell, Danbury
Monday 20 <sup>th</sup> January	CARS Skills workshop 1900h Danbury Village Hall
Sunday 2 <sup>nd</sup> February	Canvey Rally, CARS & ERG in attendance
Tuesday 4 <sup>th</sup> February	"A Hundred Years of Amateur Aerials." Tony, G4YTG
Tuesday 4 <sup>th</sup> March	Digital TV, Radio & Amateurs – What's Next?" Murray G6JYB

To be a Member of CARs, send a Cheque for **£15** – 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.

### **Postal Newsletters – could it go by email to reduce our postal costs?**

***You will see all photographs in glorious colour and have active hyperlinks using an email subscription ☺***

Please inform Brian, G3CVI by email at [g3cvi@g0mwt.org.uk](mailto:g3cvi@g0mwt.org.uk) of any changes to your callsign, postal or email address, etc. Only by **YOU** sending Brian your email address, can we ensure **WE** get it right!

**Nets** Tuesdays **19.30h** (2<sup>nd</sup>) GB3DA, (3<sup>rd</sup>) GB3ER, (4<sup>th</sup>) 1.947MHz, (5<sup>th</sup>) 3.750MHz

Sundays @ 21.00 Backnang net on 3.750MHz

Also there is the Essex Ham net every Monday @ 2000h on GB3DA

**Net Controller for January is Colin, G0TRM. Thanks to Patrick, M0XAP for December**

Thanks to Calvin D. Trowbridge, Jr. for the article on Marconi included on page 3 of this newsletter.

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

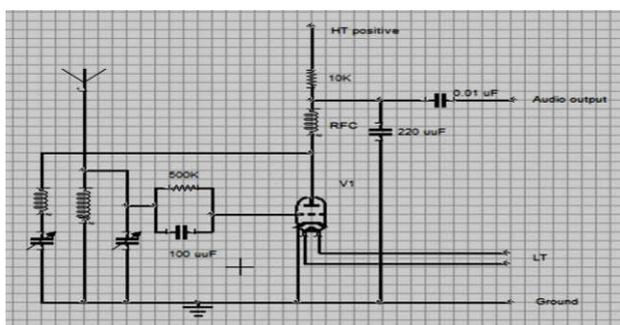
## Last Month's Meeting — Tuesday, 7<sup>th</sup> December 2013.

Using a PC for circuit diagrams and antenna modelling – Peter Bridgeman G3SUY

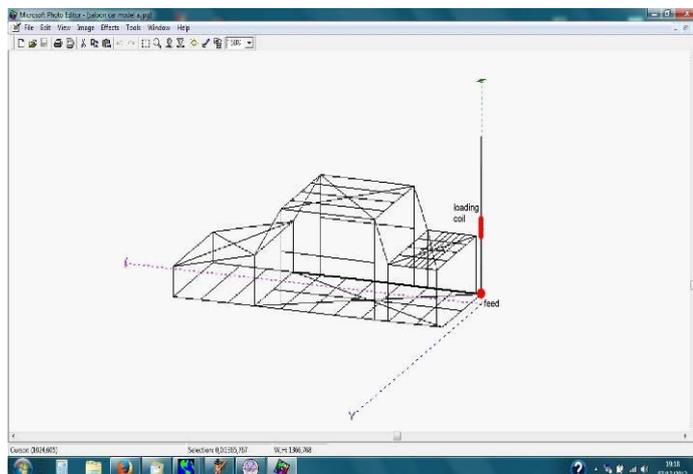
The December meeting was divided into two sessions, the first session was an introduction into the drawing of circuit diagrams using a computer aided circuit schematics program followed by an opportunity to socialise with warm mince pies, refreshments and the raffle.



Peter (G3SUY) introduced the first session. He presented the "Circuit Scribe" schematics program to the meeting by conducting a "walkthrough" of the program using his laptop computer. He was able to show how to edit the library to modify symbols. As an example he converted an indirectly heated triode to a directly heated type.



By building a simple circuit of a one valve regenerative radio on the screen he was able to simply show how to use the various symbol libraries and tools. This included placing new symbols and wiring them together, deleting symbols, moving symbols and placing legend on the diagram. With a little practice the program is relatively easy to use and can be a useful tool in recording those home brew successes.



**The plot on the left shows a wire model of the car and 160 metre loaded whip and the predicted radiation patterns.**

After the talk there was plenty of time for some warm mince pies and a good chat over cup of tea. There was display of outstanding photographs along with images of the old Ongar radio station supplied by David (G3SVI) and Myra (M0MYR).

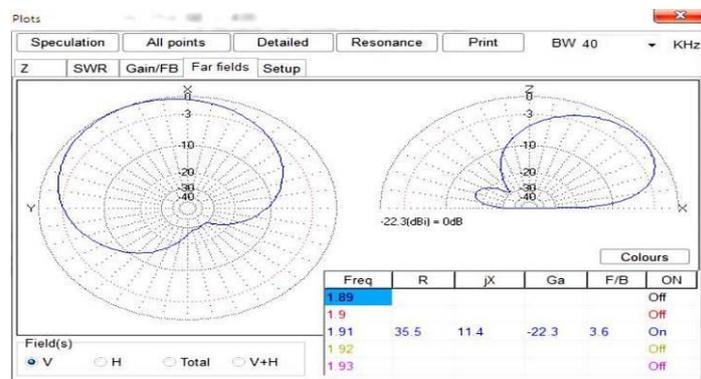
It was a very enjoyable and informative meeting.

**The programs, which are free for non-commercial use, can be downloaded from:**

Circuit scribe: <http://www.cjseymour.plus.com/software.htm>

MMANA-GAL: [hamsoft.ca/pages/mmana-gal.php](http://hamsoft.ca/pages/mmana-gal.php)

An alternative account of this meeting is available on the [EssexHam website](http://www.essexham.co.uk).



## Article

### ***Marconi, the Father of Wireless, the Grandfather of Radio and the Great Grandfather of the Cell Phone, the Race to Control Long-Distance Wireless***

**1874** Marconi was born in Bologna, Italy. During his first five years, he often accompanied his mother on trips to Bedford, England, where his older brother was attending boarding school. Home schooled until age 14, his last three years of education was at a Leghorn technical school. There he learned all he could about the rapidly evolving, new science of electricity. He failed to gain admission to the Italian Naval Academy or the University of Bologna. He never went to university. In **1894** after reading about Hertz's experiments, Marconi started his first wireless experiments in the family home attic. In **1897** age 23, he received his first English patent, for "electrical actions or manifestations transmitted through the air, earth or water by means of electric oscillations of high frequency". Marconi's mother's cousin organized Marconi's hi tech, attic, start-up. This made Marconi a millionaire. The UK Company paid him the equivalent of \$1.5 million for his invention and patent, and he received 60% of the stock.

**1898 Marconi** leased a warehouse in **Chelmsford** to convert into a factory to make wireless equipment.

**1899** he signalled across the English Channel from the South Foreland lighthouse near Dover and two years later he signalled across the Atlantic Ocean from Poldhu, England, to St. John's, Newfoundland. He subsequently decided his best market was to compete against English trans-oceanic submarine cable companies transmitting long-distance messages.

**1912** Marconi won patent victories against Siemens, Telefunken and United Wireless, his major competitors. United, the largest wireless company in the US, ten times larger than Marconi's U.S. operations, collapsed. Marconi bought United's assets out of bankruptcy. His became the dominant, global wireless company with a near monopoly. No one else's equipment was as reliable or could signal as far. No one else had as many ship-to-shore stations or as many long-distance stations. Marconi began the construction of a network of powerful, long-wave stations in Norway, England, the United States, Hawaii and Japan to relay messages around the world. Marconi was scheduled to be a guest on Titanic's maiden voyage but left England earlier to supervise the United purchase in New York. Marconi wireless operators aboard Titanic sent out its SOS distress signals. Survivors, on reaching New York marched to Marconi's hotel to thank him for his invention.

**1914** King George V awarded Marconi the GCVO, the Victorian Order. Marconi was then appointed a Senator, a life member of the Italian Upper Legislative Chamber, in recognition of his accomplishments of a high order in science. The British and U.S. governments took over most of Marconi's assets and personnel for the duration of the WW1. During the war, the U.S. government and its navy became keenly aware of the wartime and peacetime strategic importance of long-distance, transoceanic communication and that the U.S. lacked control over any long-distance system. Besides Marconi the only other systems belonged to British submarine cable companies backed by the UK government. In **1919** by threatening not to license foreign owned operators, i.e. Marconi, to transmit overseas from U.S. soil, the United States forced Marconi to sell his U.S. assets to General Electric and its newly formed subsidiary, the Radio Corporation of America (using Marconi's patents and people backed by GE, a far more powerful corporation than Marconi's UK company)..Overnight, Marconi lost his world dominance and his access to the U.S. market and faced RCA as a competitor.

**1920** Marconi purchased a British minesweeper, refitted it to be a wireless research vessel renamed Elettra, and began experiments with short-waves. In **1922** The British government decided to nationalize radio broadcasting. It forced Marconi, who held the only UK broadcasting license, to transfer his rights to a newly formed company, BBC, the British Broadcasting Company.

**1924** Under the authority of the British government, Marconi began to plan the construction of powerful, long-wave stations for direction communication between England and Australia, Canada, India and South Africa. But his experiments with short-waves succeeded to a point indicating short-wave transmitters, antenna, and transmission costs would be far less than those of long-waves. Although his short-wave work was so new that it had never been tested in commercial operation, Marconi substituted his short-wave system for long-waves in the pending construction. In **1927** Marconi's short wave stations went on-line, far exceeding all expectations in the words that could be transmitted per minutes. Operating unit costs fell and profits rose. Demand and volume surged as his new technology, allowed Marconi to price his service well below cable as they could not cut their maintenance and operating charges sufficiently to compete profitably and faced ruin. **1929** The British government, concerned about the future of the British cable companies forced Marconi's company to merge in a minority position into a consortium called Cable & Wireless. Marconi was removed from management and assigned to a research subsidiary. He had lost control of what he had created and run. In **1937** Marconi died of heart failure in Italy.

*By Calvin D. Trowbridge, Jr*

*Book available from Amazon*

## Presidential Jottings

We ended our year with a great meeting in December. Our thanks go to Peter, G3SUY for a very interesting talk. We must also thank John, G8DET for the mince pies; and David, G3SVI and Myra, M0MYR for organising and providing the teas. After experiencing the crush at the back of the room, we have requested the museum to place the hot water urn outside the room at the next meeting as in previous meetings.

Thanks also to Martyn, G1EFL and his Wife, Val for the organisation of the Christmas Lunch. I was unable to attend but I understand that a good time was enjoyed by all those attending.

Your committee has arranged a very interesting series of talks on a variety of subjects for the coming year, so please support the meetings. The committee also would like suggestions for talks from you.

May I wish you all a Happy New Year with plenty of operating on the bands.

**Carl, G3PEM**

## CARS Christmas Lunch

We used the same Venue we have used for the past two Lunches. Unfortunately a number of CARS Members could not attend; however, a good number did make their way on a bright, cool and dry day to Rettenden.

We were again in the Conservatory and looking at a table with 14 lovely Raffle Prizes including two one Litre bottles of 12 year old Brandy. Thanks to those who so generously donated the prizes.

Vice President John, G8DET assumed the role of Master of Ceremonies and started by relating the story of his contacting Essex County Council about the Sandon Park and Ride Wind Turbine rotating at normal speed even though there was no wind. It appears it can "Motor" - taking energy from the Mains to turn itself as it waits for the wind to reappear!

He then reminded those present that Pat Gowen, G3IOR came to the club in September 1998 and told CARS he had witnessed his house slide onto the beach at Hemsby (as on recent newscasts)- hence his interest in waves in Norfolk. This was when Dick Brocks, G3WHR was President and the Secretary was the late Charles Shelton, G0GJS. It was interesting to note that CARS used to have a SSTV Net on 28MHz on a Thursday evening in those days. The Daily Telegraph for Saturday, 11th July 1998 was circulated which featured Pat taking water samples at Hemsby. Many friends and Members found themselves sitting next to people that they had not met before but it was surprising how many areas of common interest were found. Tea,

coffee and mints were served with the party breaking up at 3.30pm.



*Ed. This is an extract from the CARS website article provided by John, G8DET.*

## Canvey Rally Sunday 2<sup>nd</sup> February

We need items to sell at the Canvey Rally (Sunday 2nd Feb. 2014)

If possible please bring any items to the January meeting.

Thank you David G3SVI and Myra M0MYR  
Contact number 07849414796

## RSGB IET Lectures available

The British Amateur Television Club (BATC) has made available videos from the RSGB Centenary event held on December 5, 2013 at Imperial College, London. One of the presentations was given by CARS Honorary Member Peter Chadwick G3RZP

Three videos are available:

1. "Amateur Radio: a 100 years of introducing technology" by Peter Chadwick G3RZP
2. "Amateur Radio: looking to the future" by Lee Hudson, M0LMH
3. Questions & Discussion and closing remarks by Bob Whelan, G3PJT, RSGB President

You can either watch them online or download them to a PC, by following these steps:

- 1) Go to <http://batc.tv/>
- 2) Click on the "Film Archive" icon near top left
- 3) Select "RSGBIET Meeting" from the Category drop down menu
- 4) Click on the "Select Category" button
- 5) Select the video required from the Stream drop down menu
- 6) Click on the "Select Stream" button
- 7) Click the play button or download from the link under the video

**Trevor, M5AKA**

## Renewal of Licences

Murray, G6JYB has noted that Ofcom has reported that almost 40,000 amateurs have not revalidated their licence.

**If your licence gets cancelled due to non-validation it will cost £20 to re-request a licence via a full postal application.**

Logon to the Ofcom website to renew.

<https://services.ofcom.org.uk/>

## New Freeview HD channels

On 10<sup>th</sup> December new BBC High Definition channels appeared on Freeview.

Exact details depend upon whether you obtain your service from Sudbury or Crystal Palace. For details and how to retune your TV (or set-top box if you have a HD TV without a HD tuner) check

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

Courtesy of John, G8DET & Murray, G6JYB

## CARS Skills Workshops

News of a new initiative from CARS

**"Amateur Radio Skills".**

As we all know, amateur radio is all about experimentation and self-training, but sometimes we all need a helping hand or a little inspiration from others. From January, CARS will be running a series of friendly and informal "workshop" evenings aimed at gathering together amateurs of all licence and experience levels to swap ideas, get hands-on with something new, and above all, share knowledge. We're hoping that the evenings will make for fun get-togethers with demos, show-and-tell, and lots of opportunities to ask questions and chat.

Whether you're new to the hobby, an experienced amateur looking to try something different, or someone who'd be interested in helping to pass on your knowledge to the next generation of operators, we'd love to welcome you along.

The first session will be a meet-and-greet event on Monday the 20<sup>th</sup> of January 2014 at Danbury Village Hall, from 7pm. The venue will be familiar to members who've attended the highly successful CARS training courses, and a Monday meeting has been chosen to coincide with the Essex Ham Monday Night Net, which has similar aims of knowledge sharing and advice. There's no charge for attending the CARS Amateur Radio Skills workshops, although a small donation for the refreshments would be welcomed, to cover costs. If you're interested in finding out more, register at [www.hamskills.co.uk](http://www.hamskills.co.uk) and get updates by email. If you're interested in helping out then please contact Pete, M0PSX by email at [skills@essexham.co.uk](mailto:skills@essexham.co.uk).

**Thanks to Pete, M0PSX**

## Worked Essex Towns and Villages Award

The CARS committee are considering establishing an operating award called "Worked Essex Towns and Villages Award". This has been devised by our President Carl, G3PEM who will be the award manager.



*Finchingfield - a typical Essex Village?*

Participants must work at least 5 different Essex towns/villages for a silver award and at least 10 for a gold award. Each award costs £6 for UK residents and, after deduction of printing and postal costs, the balance will be donated to the CARS supported Essex Air Ambulance.

See [www.g0mwt.org.uk/awardfold/award.htm](http://www.g0mwt.org.uk/awardfold/award.htm).

We would like to ascertain the level of interest in this award amongst CARS members and the opinion of members will be sought at the meeting to be held on 7th January 2014. The award will be open to all amateurs worldwide and will run for a period yet to be determined but for at least one year. All bands and modes including cross-band working are allowed but repeater, mobile and internet connection type operations are not allowed.

This is not a contest but just a bit of relaxed operating which will result in help for a charity. Please give this some thought and even your support. If there is sufficient interest we will roll it out and full details will appear on our website.

**John, G1UZD**

Chairman CARS

## Operators Required!

CARS has a very healthy membership and most are licensed to operate. We operate as a club on a number of special event days throughout the year but it is very noticeable that the operators are the usual small band of dedicated members. This is an appeal for more members to come and take part in these events. This will give you more operating experience because it is not quite like the relaxed approach you might take at home. Depending on a number of factors, (the event, band, mode, conditions etc.) you could experience the same relaxed approach or a pile-up! Depending on your needs, you may operate

for just a few minutes or an hour or more. If needed, an experienced person can be with you and in all cases logging will be done by someone else. You can help by just doing some logging to start with whilst observing how others operate. Later you can take over the key/microphone when you are ready. Remember, these events are not contests which are much more frenetic. So please consider using your license in furtherance of the club's exposure to worldwide activity. Even if you are a Foundation or Intermediate licence holder, you can experience higher power operation (when sitting with a full licence holder) and use a special callsign. If we can get some more operators then we can consider taking part



in more events and even in some contests and field days. Operating a club station is very satisfying so please step forward and take the key/mic. See our website

[www.g0mwt.org.uk/future-meetings/index.htm](http://www.g0mwt.org.uk/future-meetings/index.htm) for details of not only future monthly meetings but event days. The first event at the moment is International Marconi Day on 26th April 2014 at Sandford Mill Museum, Chelmsford using hopefully GB100MWT or our club call GX0MWT. John, G1UZD  
Chairman CARS

## CARS Market Place

### **Silent Key Sale:**

Yaesu FT-726R 144 and 430 MHz 10W multimode transceiver £250

Contact Trevor M5AKA tel. 07853 979 629 email [m5aka@yahoo.co.uk](mailto:m5aka@yahoo.co.uk)

## CARS Morse Classes

Morse code classes will take place at 7pm Thursday evenings in the function room at The Bell, Danbury CM3 4DT. All aspects of CW are covered from the beginner to the CW operator who wants to increase their skills.

Previous Morse classes have proved very popular. Foundation holders have been keen to find out more about this mode which enables DX working using very low power levels.

To join contact Andy, G0IBN on 01621 868347 email:[g0ibn@kersey1.freeserve.co.uk](mailto:g0ibn@kersey1.freeserve.co.uk)

## Seasonal Problems?



Santa can be bad for your antenna system ☺

## And Finally:-

### The pleasures of old age?

Two elderly hams had been friends for many decades. Over the years they had shared all kinds of activities and adventures on the ham bands.

Lately, their activities have been limited to meeting a few times a week to play cards. One day they were playing cards when one looked at the other and said, "Now don't get mad at me I know we've been friends for a long time but I just can't think of your name and your callsign! I've thought and thought, but I can't remember them. Please tell me what they are."

His friend glared at him. For at least three minutes he just stared and glared at the grey haired old man. Finally he said, "How soon do you need to know?"

***Closing date for items in the next Newsletter – Tuesday 21<sup>st</sup> January.***



**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)**

**Net Controllers are still needed for March, April & August.**

Thanks to Geoff, G3EDM who has volunteered to act as controller in February.