



## 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 494

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

April 2007

### **This Month's Meeting – Tuesday, 3<sup>rd</sup> April. 7.30pm at the MASC. Presentation by Mark Francis, G0GBY. - Waters and Stanton.**

CARS Members and other Amateurs in this part of Essex are fortunate to have Waters & Stanton as their Amateur Radio emporium so close. As a family firm it has been supplying quality radio equipment for many years - CARS has dealt with it maybe since it started.

Mark Francis is the Sales Director & always welcomes CARS, when W & S have their now annual "Radio Evening".

Come along to hear what items are new to the world of Amateur Radio and to discover what Mark thinks the future holds.

Bring your chequebook, as we expect Mark may be able to point out a bargain or two! There will be the usual good Raffle.

#### **Dates for Your Diary**

Net Controller April	Harry G5 HF
Wed 3 <sup>rd</sup> April	CARS Committee Meeting - Danbury Village Hall at 7.30pm - All welcome
Saturday 21 <sup>st</sup> April	Sandford Mill Open Day to the Public with CARS. 10am to 5pm
Saturday 28 <sup>th</sup> April	International Marconi Day at Sandford Mill with CARS. All day
Tuesday 1 <sup>st</sup> May	CARS Meeting. John Wood, G4EAT – Microwaves.

**Sandford Mill Open Day – 21<sup>st</sup> & IMD 28<sup>th</sup> April – See page 6.**

#### **Intermediate Amateur Radio Course**

The 6th Intermediate Course will be held at the Danbury Village Hall near Chelmsford on Thursday evenings between 7 and 9pm from 19th April until 28th June. The exam will be held on Thursday 5th July.

It costs £65 which covers the room hire, Project Materials, Intermediate Licence manual and RSGB Exam Fee. Note: you must first have passed the Foundation level before doing the Intermediate.

Those interested in attending should contact Clive G1EUC

Tel: 01245-224577 - Mob: 07860-418835 - Email: [training2007@g0mwt.org.uk](mailto:training2007@g0mwt.org.uk)

Training Web Page: <http://www.g0mwt.org.uk/training/>

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Thanks to Denis, M0FHA & Joy for arranging the Postal Members Newsletter – could it go by E-Mail?

Please keep our Membership Secretary, informed of any changes to your callsign or E-Mail addresses, etc. 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) 1.947/28.375? (4th) 1.947: (5th) 145.375.  
All +/- QRM.

## **Last Month's Meeting:** **Telecommunications Over the Years by** **Alan Copperwaite. M0DDC/G8AQO**

Alan started his presentation by telling us that it had started as a talk to the local Rotary Club on what people do for a living, but as Amateur Radio had been a prominent part of his life he decided to include it.

He had been a Radio Ham since 1963 and is now a Telecoms Consultant. He said the definition of an IT consultant was one who borrowed your watch, told you the time, and charged you for the privilege. He promised not to charge us for his advice however. His company at the moment, deals with running projects, radio systems, dealing room IT, mobile and ship communications, designing and project managing public area networks, the relocation of offices; reorganising and re-cabling of their structures.

His professional work started in 1963 when he was a YIT (Youth in Training) with the GPO Post Office Telephones. Because of his interest in Radio, he was allocated to the PO Tower on Microwave Radio Maintenance, at that time a brand new building at 620 feet high including its 30 ft. tower at the top. At times he had to climb this to change the aircraft warning lights, not a job most of the staff relished even though the view over London from this point was stunning. On one occasion, the view included a completely circular rainbow.

He started in Amateur radio with a crystal set and progressed as most of us did in those days, through one, and then two or three valve sets. In 1963 he passed the RA exam and was allocated G8AQO. He said others did not look on his pass with a great deal of friendliness, as a B Licence was thought to have been a usurping of the full licence (without the Morse qualification for an A). He joined the Paddington Club and took part in a lot of their field day events; he showed us pictures of his van, the aerials, and a jury reflector for a 70 cms Yagi, using a hubcap from a Riley 1500 car.

In 1969 he moved career from the Post Office to the Home Office who were advertising for wireless technicians. In this job he was involved with communications for the Police, Fire and Civil Defence as well as the development of the dreaded Radar speed devices. The Marconi unit he illustrated and dealt with only went to 80mph initially, but was soon modified to bring it into line with more everyday traffic. He also showed pictures taken by the early speed cameras and told us of their snags. In 1973, still with the Home Office he moved to develop the Police National Computer Network (PNC); possibly the last national computer project to be delivered on time and on budget. In

1973 the PNC held details of the registration marks of 20, million vehicles and details of ownership 200,000 stolen or suspect vehicles and coded fingerprints of up to 3 million people, all this could be called up in 5 to 8 seconds and was regularly checked.

He finally left the Civil Service and joined LOGICA; he worked on defence projects for RAF Communications. He was accepted by the IEE and felt he could now call himself an Engineer and was assigned to Arranco in Saudi Arabia. He heard that there was a 2 meter repeater in Bahrain and decided to take his IC2 back with him, he was searched at the airport, arrested and interviewed by an official who said he could give it back but he would only be arrested again outside the airport, so he offered to keep it until he left the country. Alan was then taken to a warehouse stacked with confiscated items like statues of the Virgin Mary and other religious icons and idols not acceptable in Saudi, and lines of bottles of alcohol disguised as Fairy Liquid, Dettol and so on. The third line was confiscated Radios and his IC2 was put here with a note in Arabic to identify it. (He actually got it back when he left the country).

After a diversion with ESSO Petroleum he went to work with Price Waterhouse Coopers as a consultant (1982) and in 1984 set up his own consultancy called ECLIPSE. At this time the dealing rooms of the stock exchange were liberated and the banks all needed their own facilities which had to be refurbished or modified out of dealing time, this meant 24 hour working at weekends to start with the new kit working first thing on Monday morning.

At around this time the IRA blew up the building in St Mary Axe. Alan's company rebuilt the dealing rooms and the IRA blew it up again. A member of the audience asked if he was paying the IRA; he said "no" but the IT business was certainly in a lift of business at that time.

In 1994 he left ECLIPSE and formed the current company that deals with major office relocations and involves redesigning data schemes and re-cabling arrangements. He is involved with comms for one of the largest private yachts in the world, which even sports its own telephone exchange.

After some 40 years he still keeps an interest in Amateur radio and took the Morse test in 2002. He was allocated the callsign M0DDC, but he still keeps G8AQO. His main interest today is old radios and QRP Morse activity; He has some old radios in a collection. One example he brought with him, a 3-valve battery and accumulator job in very good condition. He also spends his spare time with partaking in the SOTA activities and regaled us with a few of his experiences, His preferred rig at

present, is an FT 817 with extra battery pack and a very neat foldable aerial which he demonstrated. It has a 15mm copper boom and three wire elements using plastic wall fixings as insulators and element supports (very neat light and clever.) Alan gave us a run through on the rules of *Summits on the Air* and was sorry that no "Marilyns" or the like were in Essex. The closest were Kent or the Dichling Beacon in Sussex.

Alan said that this was not quite the end of his story and the use of various modes and their advantages and disadvantages were considered for SOTA. This culminated in the fact that software for a PDA has been written which allows these to operate data mode PSK31 on them and on some mobile smart phones as well. He illustrated this showing him working a station in the Azores being received on this very tiny, light set up,

Thank you Alan for a most enjoyable and varied run down on your professional and Amateur activities.

**Tony Gilbey G4YTG.**

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### **Enquiry to G8DET from the Web Site**

We received the following email as the result of an enquiry to the CARS Web site

----- Original Message -----

From: "Dariusz Milka" <[dariusz@milka.pl](mailto:dariusz@milka.pl)>

Welcome and I invite you to try the new website Internet Ham Atlas <http://www.hamatlas.eu/>

which represents 4 years of work.

It contains complete information on all 337 DXCC Entities and has over 3000 pictures and 1100 maps.

I hope you find the site useful.

**73 Darek.**

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### **Radio Towers Demolished**

Several Radio Towers have been demolished recently see: Video of former WOR transmission towers being demolished  
[http://www.southgatearc.org/news/january2007/towers\\_demolished.htm](http://www.southgatearc.org/news/january2007/towers_demolished.htm) and

Belconnen towers felled

[http://www.southgatearc.org/news/january2007/belconnen\\_towers.htm](http://www.southgatearc.org/news/january2007/belconnen_towers.htm)

**Trevor M5AKA**

### **Letters to the Editor.**

A comment after reading the February Newsletter.

**Hi John,**

I was interested in the comments about Louis Varney and the Elizabethan.

I expect there are some CARS members who can remember the battles Roy Martyr, G3PMX, (he also had the usual crop of receiver deficiencies) had with TVI from the second harmonic of 21MHz: that was from a linear amplifier.

At that time, I had a Panda Explorer with a pair of 6146s running in Class C, and because Class C produces more 3rd harmonic and comparatively little second, I could operate on 21MHz using AM without getting a 'WAC' - 'Worked All Chelmsford'. However, the same effect meant that Roy could operate on 14MHz, and I couldn't, because the linear amplifier produced more second and less third harmonic.....

I believe that the reduction in TVI problems wasn't so much the move to SSB as to the move to well screened and filtered transmitters, such as the LG300 - and the Elizabethan! But getting rid of VHF TV was the real bonus.

Louis and Nellida stayed with me a number of times down near Swindon: he was always pleased to be fed salad for supper, and kippers for breakfast! He provided me with my OD and EP cards for DXCC - both still not exactly common.

Incidentally, on the subject of Contests, in the mid 1960's we did National Field Day from Danbury Park. Before that, the Marconi site at Bedell's End was used, and in 1964, CARS won a trophy. However, there were some questions about how generous a viewpoint was taken of what exactly 10 Watts input was!

Planning meetings for NFD in the 1960's were held at Ron Ferguson's (G4VF) place:

I got appointed Minute Secretary, and Ron wasn't too pleased with the shortness of the minute that just said 'Hammer G4VF!!' We did cut back on the amount of beer, which Ron always provided: we found we weren't getting through 18 gallons in a weekend.

**73 Peter Chadwick, W3/G3RZP**

Sent from San Diego in January 2007

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## Amateur Radio in Vehicles

With the recent changes in penalties for the use of mobile phones in vehicles some Amateurs have been concerned regarding Amateur Mobile operation.

The following statement was issued by RSGB HQ on Wednesday 28th February:

For your information - There has been no change to the existing law regarding mobile amateur radio operation in motor vehicles. Please see below for further details.

### Mobile Amateur Radio Operation - Mobile Phones and the New Laws

The use of 2-way radio equipment (unless the device can also be used as a phone) when driving is not included in the new offence. It must be remembered that there is still a risk of distraction and prosecution under other laws should an accident occur.

If stopped by the Police for operating mobile amateur radio, the reference to quote is:

The Road Vehicles (Construction and Use) (Amendment) (No.4) Regulations 2003 Statutory Instrument 2003 No 2695.

This lays out clearly the exemptions under the new law.

Statutory Instrument No. 2695 can be viewed at: <http://www.legislation.hmso.gov.uk/si/si2003/20032695.htm>

Road Safety Bill - Mobile phones and driving - new penalties  
[http://www.southgatearc.org/news/february2007/road\\_safety\\_bill.htm](http://www.southgatearc.org/news/february2007/road_safety_bill.htm)

## Essex Amateur Recruited to ARDC

**Mark Haynes, M0DXR**, whom some of you will have met at our January meeting and who gave us an excellent talk, was recently recruited to the Amateur Radio Development Committee (ARDC). (See note below.)

From the RSGB Board minutes for 25 November 2006  
<http://www.rsgb.org/membersonly/information/minutes/bm1106.pdf>

The Director [Amateur Radio Development Brian Reay, G8OSN] also reported that a suitable "lead" for the Morse tuition and testing project has been

identified and tentatively, recruited to the ARDC team. He is Mark Haynes, M0DXR. The General Manager, was delighted with the recruitment of Mark Haynes to the Amateur Radio Development Committee especially as Mark was a former RSGB "Young Amateur of the Year" However, following an initiative in Region 12 (East and East Anglia) he had agreed to the recommencement of the "Slow Morse Training Transmissions" under the stewardship of Roger Cooke, G3LDI. This service had been dormant for about 3 years since the retirement of George Allen, GM4HYF. At present the transmissions are local to Region 12 but it is hoped to slowly roll them out to cover the whole of the UK.

Chelmsford Amateur Radio Society FT5XO  
Kerguelen DXpedition

[http://www.southgatearc.org/news/january2007/cars\\_kerguelen\\_dxpedition.htm](http://www.southgatearc.org/news/january2007/cars_kerguelen_dxpedition.htm)

## WCVB-TV Video - Happy Birthday Radio

The video of the WCVB-TV Channel 5 Boston Chronicle programme "Happy Birthday Radio" which was broadcast on 23rd February 2007 is now available on the web at

<http://video.google.com/videoplay?docid=-4569021939106575335>

The video charts the early development of radio in Massachusetts and New England and contains coverage of 100th Anniversary of Reginald Fessenden's first voice broadcasts.

Amateur Radio is prominently featured near the beginning and towards the end of the broadcast.

It is an excellent programme and well worth watching.

BBC World Service Discovery - Fessenden: King of the Radio Waves  
[http://www.southgatearc.org/news/december2006/king\\_of\\_the\\_radio\\_waves.htm](http://www.southgatearc.org/news/december2006/king_of_the_radio_waves.htm)

WCVB-TV Boston  
<http://www.thebostonchannel.com/index.html>

WCVB-TV Chronicle - Friday, Feb. 23: Radio Days  
<http://www.thebostonchannel.com/chronicle/11024999/detail.html>

## UK Amateur Radio Licences As at 28th February 2007 -

The UK regulator Ofcom have supplied the figures for the number of Amateur Radio Licences issued as at 28th February 2007.

Grade	28 <sup>th</sup> Feb 07	31 <sup>st</sup> Jan 07	Difference
Foundation	8132	8058	74
Intermediate	3528	3505	23
Full	49314	49269	45
Club Stations	1221	1217	4

The figures show a very small increase in all categories but the number of new Foundation licences is surprising low. If that rate of increase continues we could end up having less than a 1000 new people coming into the hobby during 2007.

In the UK all Amateurs have to pass their Foundation before they are allowed to progress onto Intermediate. Since the ending of City and Guilds Radio Amateur Exams in December 2003 it is no longer possible to go directly to Intermediate or Full (Advanced).

UK Amateur Radio Licences as at 31st January 2007

[http://www.southgatearc.org/news/february2007/uk\\_amateur\\_radio\\_licences.htm](http://www.southgatearc.org/news/february2007/uk_amateur_radio_licences.htm)

UK Amateur Radio Licences as at 31st December 2006

[http://www.southgatearc.org/news/january2007/uk\\_amateur\\_radio\\_licences.htm](http://www.southgatearc.org/news/january2007/uk_amateur_radio_licences.htm)

AH0A - Amateur Radio Licensing Statistics

<http://www.ah0a.org/>

Reports of the old City and Guilds Radio Amateur Exams used to be available at

<http://www.kippax.demon.co.uk/c-and-g/>

They are no longer available at this URL but they can still be found on the Internet Archive WayBackMachine at

<http://www.archive.org/>

Also on the website are PDF's of UK Amateur Radio licences from 1907 and 1954.

## 73 Trevor M5AKA

### Editorial Comment.

Perhaps the new Ofcom Licence procedures are masking the real numbers of persons wishing to join the hobby.

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## UK Based Company Buys US Antenna Maker Cushcraft

Cushcraft, the well known US makers of Amateur Radio HF VHF and UHF antennas, have been bought by the United Kingdom based Laird Group PLC. There is no mention in the statement of plans for the Amateur Radio Antenna division.

It was sold for \$89M

### 73 Trevor M5AKA

### A Footnote from Murray Re Laird Technologies

Also refer to the Laird website...

<http://www.laird-plc.com/media/>

Note the Wimax/WLAN focus

### Murray, G6JYB

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### Daylight Saving in the USA.

The US Energy Savings Act mandated an early start and late finish to Daylight Savings Time - from 2007 it will be from the second Sunday of March (11<sup>th</sup> in 2007) to the first Sunday of November (4<sup>th</sup> in 2007).

It applies to most of the US and Canada (which passed similar laws).

It does NOT apply to Arizona, Hawaii, Puerto Rico, the U.S. Virgin Islands, and American Samoa. It does not apply to Mexico.

The changes matter not just to people who live in these areas but also anyone who travels to or schedules appointments in US time zones. Unfortunately, computers in the USA will need a patch to correct this change.

Remember this if you are arranging a radio sked. Wonders – how long before this change will be implemented in the UK?

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### CARS School Success

At the end of 2006 the Chelmsford Amateur Radio Society (CARS) were approached by Penny Bunting of the King Edward VI Grammar School (KEGS), Chelmsford about providing an Amateur Radio course at the school.

Penny is the KEGS Engineering Coordinator and runs the KEGS Young Engineers Club. The club, which is run outside of normal school hours, offers a wide range of engineering related activities to the pupils and Penny wished to include Amateur Radio as one of the activities. Under Penny's leadership the KEGS Young Engineers Club was awarded

'Best New Club' 2006 at the National Young Engineer awards in London last September.

KEGS was founded over 450 years ago and it became a specialist Science College in September 2004. Its high reputation means the school attracts pupils from towns up to 20 miles away. CARS were keen to assist the school but to do so they had to rearrange their already full training schedule for 2007. It was agreed with Penny that CARS would run a six-week Foundation Training course at the school starting on Thursday evening 4th January.

Due to the extensive range of practical assessments, such as the On-Air HF and VHF contacts needed to get a Foundation Licence the numbers on the course had to be restricted. Unfortunately this meant some pupils were denied the opportunity to take part but hopefully they will be able to join a future course.

The course proceeded smoothly and all looked promising for the exam planned for 8th February. Unfortunately that day produced the only snowfall in Essex during the winter! As a result the school was shut down and the exam had to be cancelled. School Half Term then intervened and the exam was postponed until 22nd February, a gap of 3 weeks from the last tuition session. Of the 19 candidates, 17 passed and they will now be attempting the next major hurdle of getting a Licence from Ofcom's new online licensing system!

After the exam the course lead instructor Christopher Chapman, G0IPU was presented with a Thank You card signed by the pupils. The age of the pupils on the course ranged from 12 to 18 and the CARS tutors were impressed by their enthusiasm and commitment. They stayed at the school long after lessons had ended in order to attend the course, which ran from 6:30 until 8:30 pm. They were a credit to the school and all fully lived up to its motto "Whatsoever thy hand findeth to do, do it with thy might" (Ecclesiastes 9:10)

The course could not have taken place without the support of the following CARS members:

Christopher Chapman G0IPU; Murray Niman G6JYB; Carl Thomson G3PEM Clive Ward G1EUC; Martyn Medcalf M0VAM ; Jim Beatwell 2E1GUA Brian Thwaites G3CVI; Trevor Hawkins M5AKA; David Bradley M0BQC Rhona Chapman 2E1GQL & Patrick Xavier M0XAP.

Related URLs: -

King Edward VI Grammar School  
<http://www.kegswebsite.org.uk/>

KEGS Science Community Website  
<http://www.kegscommunity.org.uk/>

CARS Training Pages  
<http://www.g0mwt.org.uk/training/>

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## **Sandford Mill Radio Museum Open Day - Saturday 21st. & IMD, Saturday 28<sup>th</sup> April.**

The Sandford Mill Radio Museum, Chelmsford will be open to the public on Saturday 21<sup>st</sup> April between 10am - 5pm, admittance and parking are free.

IMD will be celebrated by CARS on Sat 28<sup>th</sup> April.

The museum is only open 4 or 5 times a year so this offers a rare chance to see the many fascinating exhibits that are displayed there. These include spark transmitters from the late 1890's right through to some very QRO commercial transmitters from the 1960's. There is also a good selection of Valves and early Television Broadcast Cameras. There is also a fully equipped Ships Radio Room and the collection of Marconi and other Marine Radio equipment donated by the late Donald Imber G0VIS.

The Chelmsford Amateur Radio Society will be operating all day from inside the preserved wooden hut that housed the original 2MT broadcast station.

Visitors to the stations are most welcome on the Open Day, Saturday, 21<sup>st</sup> April.

Pictures of some of the Sandford Mill exhibits can be seen at <http://www.g0mwt.org.uk/events/>

A map showing Sandford Mill (Postcode CM2 6NY) can be seen at:

<http://tinyurl.com/7mh7b>

If you are interested in taking part in either the Open Day or IMD events, be it as a Operator, Logger or Host or even in helping to erect the antennas then contact Brian G3CVI on 01245 471919

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## **For Sale**

7.6metre Tennamast & 80 to 10metre Hustler Aerial. 4 years old and in good condition. Buy collects from Colchester or arranges collection.

Bargain price of £150. Telephone 07812 488 369

Jeanette Mageehan.

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This Newsletter was edited by John, G8DET with assistance by Colin, G0TRM. Material supplied by Trevor, M5AKA & Tony, G4YTG.

Would you like to Edit the May issue?