



Chelmsford Amateur Radio Society Newsletter

November Meeting

Tue 5-Nov-2019, 7:30-10:00pm
Oaklands Museum, Moulsham Street

LF, MF, WSPR and more!

By Andy Tyler G1GKN

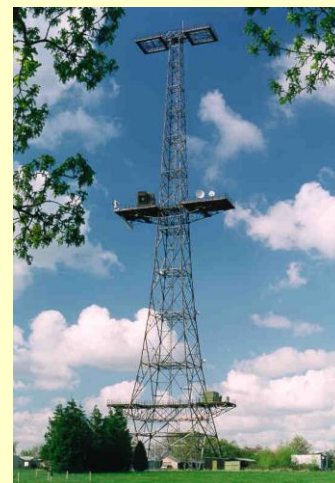
Andy's talk will outline some experiments that he has been doing at MF, LF and VLF, using WSPR and CW modes -helped by a nice little tower

He will show you how easy it is to get on the air LF and MF bands, even if you don't have a few acres for the aerial farm.

However a word of warning, high power and high-Q antennas can result in your very own firework display.

For a potentially explosive November the 5th talk come along.....

Refreshments and the famous CARS Raffle also feature.



Volunteers Still Needed: Treasurer, Training Manager, Membership Secretary.
Please do think about stepping forward !

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Club Diary

Tue 5-Nov-2019	LF/MF & WSPR talk – Andy Tyler G1GKN	Chelmsford – Oaklands Museum, 7:30pm
Tue 3-Dec-2019	Xmas Talk 'Marconi in Italy' & Xmas Social	Chelmsford – Oaklands Museum, 7:30pm

Club Nets

CARS meets for talks/events on the first Tuesday of the month. The subsequent Tuesdays have club radio nets as follows:-

- 2nd Tuesday in the Month – VHF**
 The CARS VHF FM Net uses GB3DA from Danbury starting at 8pm (local).
 GB3DA is 145.125MHz Input and 145.725MHz Output - and CTCSS-only (110.9Hz), 2min timeout
 If for any reason GB3DA is not available then 145.375 Simplex will be used. Vertical aerials are best for this
- 3rd Tuesday in the Month - UHF**
 The CARS UHF FM Net uses GB3ER from Danbury and starting at 8pm (local).
 GB3ER is 434.675MHz Input and 433.075MHz Output - and is CTCSS-only
 Vertical aerials are best.
- 4th Tuesday in the Month - HF**
 The CARS 80m Net on "3756kHz" Night, SSB and starting at 8pm (local).
 Horizontal aerials are best. The idea is to enable distant CARS Members to join the Net.
- 5th Tuesday in the Month (when there is one!) - MF**
 This is the CARS Top Band Net on 1947/1950 kHz +/-QRM, LSB and starting at 8pm (local).
 Horizontal aerials are usually used for this Net. A reminder - limit your power to a max of 30 Watts, please.

Training & Morse Classes

Following Peter M0PSD's dedicated and very successful effort in the past few years, his recent retirement means CARS is on the lookout for a new training manager! – Please step forward!

Having had a really busy period especially for Foundation and Intermediate training – there is a lull that enables us to revise material for the new RSGB 'Syllabus-2019' which came into effect on Sept 1st. So it there is a bit of time to get up to speed.

Morse Classes are continuing at Danbury - coordinated by Andy Kersey G0IBN

And underlining his commitment, Peter is just handling a few last exam retakes (planned for Thu Nov-28)

Web: www.g0mwt.org.uk/training



Follow @TrainWithCARS



Follow @ChelmsfordARS

October Meeting: CARS AGM

The October AGM was held at Oaklands Museum and followed the prescribed agenda format. First up were Peter Davies M0PSD, Training Manager and Pauline Davies M0XPK, Treasurer and Membership Secretary who attended briefly and delivered a number of Club items as part of their handover and retirement, having previously stated that they would be standing down from their various posts. A great thanks for their efforts included flowers for Pauline (see later note)

Chairman Elliot 2E0JSE then opened the formal AGM proceedings and read out the contents of the financial report left by Pauline M0XPK. The figures were discussed at length by the members present and many points were raised. The final balance was given showing that the club is in a good financial state. It was agreed that the subscription would remain at the current level of £15. The question of a replacement treasurer was also discussed, but the post is as yet unfilled, as is the post of Membership Secretary, formerly held by Pauline. Membership currently stands at 78.

The Chairman then read out an impressive report from Peter M0PSD which outlined the fact that during the past two years some 92 Exam passes covering all three licence levels had been achieved by the training team, 62 of them this year. Peter thanked the numerous Trainers, Invigilators and all other helpers who gave up their valuable time to assist.

Since the recent syllabus change, currently few enquiries regarding training possibilities have been received by the Club. There are two candidates sitting the Advance Exam in November with high hopes of success (Peter's last task). The club now has facilities for on-line tests. The new syllabus is with us so some changes are needed. The Training Managers' post is currently vacant.

Following on, the next item on the agenda being the Annual Awards. President Tony Gilbey G4YTG then took over for the following events. Winner's certificates for the Constructors Competition and the Anthony Martyn Shield were then presented. The winners' certificate and the Shield went to Andy Tyler G1GKN for his fine Satellite receiving set up. Second prize went to Kevin M0XYM for his home built receiver and fault finding assemblies. Third prize to Alan Hanna M0IWZ for his modified Arduino board complete with added components produced a working Antenna and Network Analyser. Alan was unfortunately absent from the meeting. His certificate awaits.

This was followed by the re-election of Club officers. As previously noted three posts became vacant. Three new members joined the committee. Andrew Kersey G0IBN, proposed by Chris Chapman IPU, John O'Connell M0JOC proposed by Kevin Polston and Ian Duxbury M0LZI proposed by Tom Mann 2E0EUM. All standing members were re-elected.

After the break the raffle had an excellent selection of prizes including the latest birdbox design, a Peter M0PSD speciality – won by CARS President Tony G4YTG

Murray G6JYB then presented a fascinating RSGB archive compilation of the first Transatlantic amateur radio contacts, which was well received.

Colin Page G0TRM, CARS Secretary



AGM Thanks

Hi all.

I would like to say thank you for the Flowers, Wine and Certificate. Peter & I did not expect any gifts for the work we have done, we did it to help people achieve their goals and to produce a set of accounts which was simple to understand

May we wish you well...

Pauline M0XPD

Post-AGM: Requests & Subscriptions

IMPORTANT: POSTS STILL NEED TO BE FILLED; TREASURER, MEMBERSHIP SECRETARY, TRAINING MANAGER – Volunteers needed!

SUBSCRIPTIONS: Following the AGM, Membership subs have been retained at the same £15 level as last year and are now due!

To ease administration, please use the CARS online PayPal facility (which accepts debit cards as well if you don't have a PayPal account)

<http://www.g0mwt.org.uk/society/membership/e-form.htm>

Note that this is preferred to post, cheques or cash



Thurrock Acorns 2m Activity Day

From Nick G4HCK, TAARC...

Would you please promote our 2m activity afternoon we are planning on Saturday 16th November starting at 13.00 hrs finishing around 17.00 hrs. Final details will appear on our web site nearer the day.

<https://taarc.co.uk/>

Many thanks and we look forward to working you/ your club members on the day!

Essex 2 Metre Activity Afternoon Guide (subject to change)			
13:00 – 17:00		Essex CW Club GX1FCW/P (weather permitting)	
13:00 – 13.30	FM Voice	13:30 – 14:00	GB3DA (duplex)
14:00 – 14:30	SSB Voice	14:30 – 15:00	Data
15:00 – 15:30	FM Voice	15:30 – 16:00	SSTV
16:00 – 16:30	SSB Voice	16:30 – 17:00	FM Voice

Tim Wander 'The Melba Experiment'

...for the Centenary of British Broadcasting in 2020

On **15th June 1920** Dame Nellie Melba performed her historic concert from the Marconi New Street works and heralded in a new age of mass entertainment, radio broadcasting and the BBC.

During the concert the technology used was somewhat crude – her microphone was simply the microphone part of a 1919 GPO telephone handset with a homemade cigar box wood cone to attempt to focus the sound of the singer. This would have introduced the first complexities into the transmission. Dame Nellie Melba's voice was extremely high, indeed so high that no one alive today has ever heard it as wax disc and later shellac records were incapable of recording it correctly. But in 1920 the sound transmitted would have been severely offset by the very limited frequency response of the early microphone.



From the microphone the signal was fed into the huge valve transmitter, presumably via some form of microphone amplifier. It was transmitted on long wave via the aerial wire hung between the massive 450 feet high aerial masts that towered over the Marconi works. The effects of transmission, interference, and atmospherics are also unknown.

It was then heard on a simple un-tuned crystal set radio where a fine iron wire touching a galena crystal provide the point contact diode to detect the radio signal. The listener would have heard it via high impedance headphones.

Within days the Marconi Company received hundreds of enthusiastic letters and reception reports from the four corners of the world poured into the Chelmsford office. Radio amateurs and ships' operators alike reported how they had listened in and sung along. Every commercial station in the world had also tuned in and the concert had been received with surprising clarity, and it was voted a great success. A large proportion of the 400 or so immediate replies that the Marconi Company received were from listeners using nothing more than a simple crystal set. These included excellent reports from several Welsh listeners, but the record went to Mr. P.S. Smith on board the SS. Baltic at a distance of 1,506 miles, again using nothing more than a 'cats' whisker' crystal wireless set. The concert had been a resounding success; Dame Nellie's voice had spanned the world and produced excellent signal reports from Sultanabad in Northern Persia, and from Madrid and Berlin in Europe.

But today there are no recordings of the concert. Indeed, there is no one alive today who heard the concert, nor indeed any of the subsequent concerts from station 2MT, 2LO or the early days of the BBC. The question is, what exactly did they hear? How would it sound to a modern audience? How did records transmit or live instruments?

This project intends to recreate, as close as possible the Melba concert, transmit it using period equipment and receive it using a period crystal set and then record the sound heard using modern

digital technology. For the first time in 100 years we could hear and experience what captivated the audiences in 1920 and kick-started the birth of radio broadcasting in this country.

In overview the idea is have a live opera singer singing into a refurbished 1919 original handset microphone. This would be transmitted via a valve transmitter and received on a crystal set and the sound heard at the headphone recorded.

NB: The Melba transmission was on a wavelength of 2,700m (around 111kHz LF)
(later, Writtle used 700m / 428kHz and then 400m / 750kHz MF)

Tim Wander.

Odd Sights at WRC-19

CARS Member Murray G6JYB is the RSGB rep on the Ofcom-led UK delegation at the World Radio Conference. In amongst the long drawn out meetings and technical issues that will affect both amateur and commercial services, the venue has provided a few unusual sights

- An ITU special edition Morse key (without a price tag!)
- Artificial Palm tree mobile base station towers



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