



Chelmsford Amateur Radio Society Newsletter

December Meeting

Tue 4-Dec-2018, 7:30-10:00pm
Oaklands Museum, Moulsham Street

Xmas Social

By CARS Members

Seasons Greetings!!

The CARS December meeting will have a seasonal and socialising theme...

- Special refreshments!
- Radio Bargains
- Seasonal Quiz
- Bumper Special Raffle!

The December meeting is a seasonal and social one. For refreshments - John G8DET has been doing detailed research for Mince Pies, Sausage Rolls and Lemon cheesecake amongst other goodies.

Hear the latest updates from our Chair and Vice Chair. Its also an opportunity to pay your subs following the AGM

CARS will have tables with surplus items, or you can order the latest design of callsign badges

We will also have a special prize raffle and a Seasonal Fun Quiz from Murray G6JYB



Reminder: Following the AGM – Subs are now due...

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Club Diary

Tue 4-Dec-2018	CARS Xmas Social	Chelmsford – Oaklands Museum, 7:30pm
Tue 8-Jan-2019	'Figaro' Underground Comms' - Peter Bridgeman G3SUY – note the date (2 nd Tuesday)	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 & Exam Dates

Our training pages have sessions listed for Foundation, Intermediate and Advance.

We will start 2019 with Foundation Course-39 – more info and dates soon

Remember that the syllabus changes in August 2019, so sign up early for a course/exam before that!

Our training manager Peter M0PSD is keen to hear from candidates for the courses, as well as any needing practicals or other help.

Course	Dates	Comment
Advance-22R	Thu Oct-25 th – Dec 6 th	Advance course – and other exams on Dec-6 th

Contact: Peter Davies M0PSD, training2018@g0mwt.org.uk Web: www.g0mwt.org.uk/training

 Follow @TrainWithCARS

 Follow @ChelmsfordARS

November Meeting: Propagation

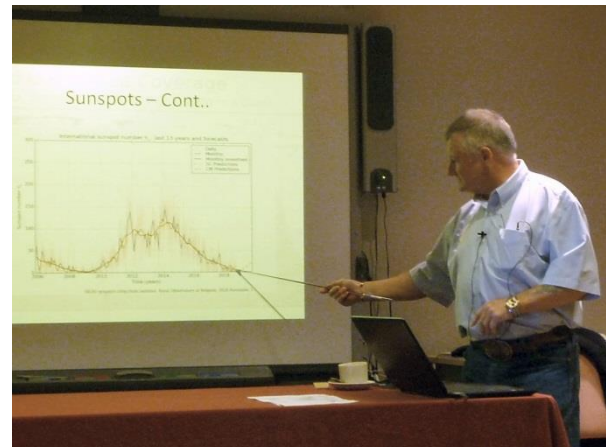
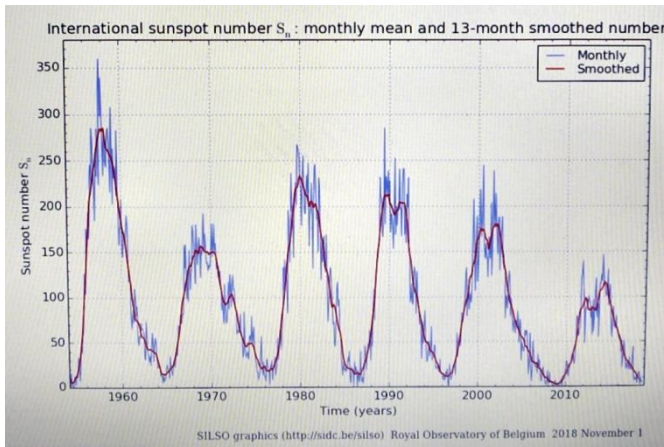
The November meeting featured a talk by HF expert and long-time club member Gwyn Williams G4FKH. Gwyn's work features every month in RadCom propagation predictions.

His talk started with the solar emissions that influence the Ionosphere and HF Radio Propagation. His introduction covered topics such as Sunspots, Coronal Holes and Flares. These can emit extra radiation and charged particles in addition to the Sun's ultraviolet light, towards the Earth and its magnetic field, creating complex variations in the ionosphere and its layers.



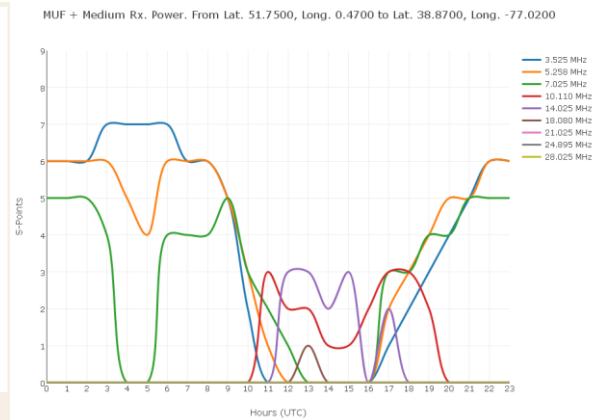
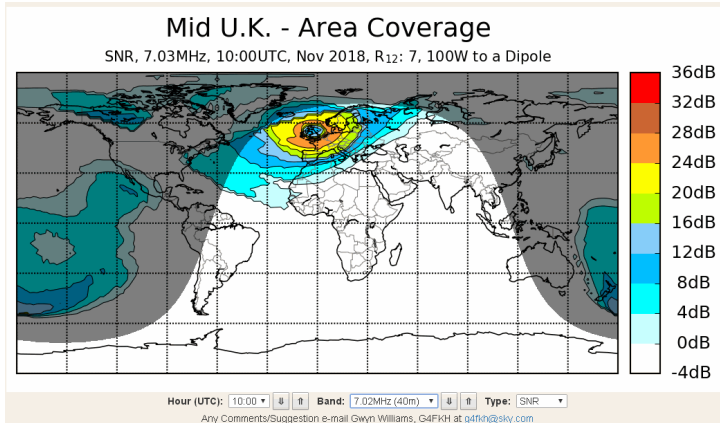
Gwyn introducing his talk to the attendees

The current long term trend on the 11-year sunspot cycle was discussed. We are now at the minimum of Cycle-24. The likelihood is that the forthcoming Cycle-25 will start in the first half of next year, but is forecast to be another fairly weak one.



Sunspot cycles: Historic and current ones

Gwyn uses the ITURHFProp prediction engine for RadCom predictions. This is derived from ITU-R P533 (and has succeeded earlier methods such as VOACAP). The basic software can be downloaded for free from the ITU (~100MB zip file) 'Software for the prediction of the performance of HF circuits based on Recommendation ITU-R P.533' - it also requires a Perl interpreter and a spreadsheet such as MS Excel or Libre Office. His Predtest website uses this and can plot in a wider variety of formats.



www.Predtest.uk Online Predictions can be in various formats

Following the break, the CARS Raffle was drawn. Gwyn was then presented with a CARS Speakers Mug by vice-Chair Elliot 2E0JSE and Colin G0TRM. Peter M0PSD then rounded the evening off with the latest training updates.



Gwyn getting his speakers mug

Useful Links:-

- ITU-R SG3 - [Software Page](#) - ITURHFProp
- Predtest - [Online Predictions](#)

Spaceweather Footnote:

For those of you that smile at the thoughts of an HF auroral black-out or some hissing noises on VHF, a recent paper from a bunch of historical scientists is worth a read re the 1972 solar storm:-

<https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2018SW002024>

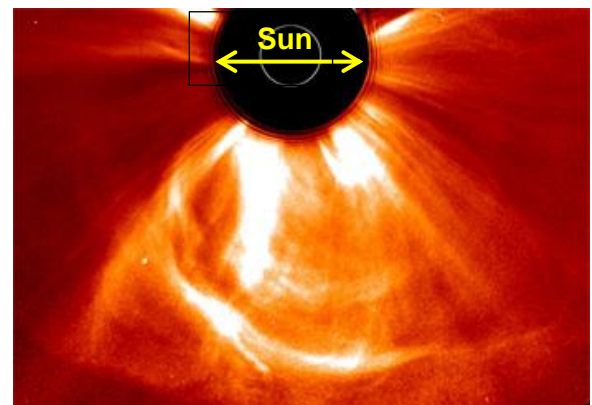
and further back is the Carrington Event of 1859:-

https://en.wikipedia.org/wiki/Solar_storm_of_1859

and this near-miss in July 2012 which could have been serious...

https://en.wikipedia.org/wiki/Solar_storm_of_2012

2012 Coronal Mass Ejection (CME) pictured by STEREO-A >>



November Skills Night

Monday evening, 7pm November 19th 2018, was Essex Skills Night, run and hosted by the CARS Training Team. This evening was the last one for the year as the hall holds its Xmas play on December. CARS also had a seasonal twist and it was a great opportunity to catch up with friends and have an enjoyable social evening.

Activities included:-

- **Training Team Free Xmas Raffle** - All attendees were given a free ticket as they signed in at the door. The raffle was drawn at the end of the evening, just after the quiz. The prizes in the photos below were rather seasonal :-)



The Xmas raffle proved popular

- **Radio:** Whist Bob G4MDB did some radio and morse key demos, unfortunately Perry 2E0XPD was caught in traffic which prevented other activity on handheld/DMR
- **D-Star** Tom 2E0EUM had planned to demo this with the club IC5100. Sadly he was unable to attend due to a family bereavement
- **Essex CW:** Dean G4WQI and his team from Essex CW Club were demonstrating HF Morse on the IC756 Pro-III and Palstar-AT2K ATU



Dean G4WQI explaining and demonstrating CW

- **Practicals:** Foundation and Intermediate revision and practicals occurred in the Hawkins Room, assisted by Peter M0PSD and Jamie 2E0EYG. One of the photos overleaf shows a homemade VFO for an intermediate practical.



Training and Practicals during Skills Night

- **Exams:** Session EX3 had Foundation Exams taking place in our Exam room. Our congratulations to the two who passed - [see here](#)
- **Subs & Sales:** Pauline 2E0EUH was running the Club table for Membership Renewals, and a Table Top Sale/Bring and Buy. Some of the sale items drew quite a lot of interest and included some excellent condition classics



The Club table had some lovely classics for sale

and of course...

- **The Quiz:** A Fun Quiz with Murray G6JYB - which had some intriguing questions to wake up your grey matter and impart some knowledge! - see back page..

Remember – No event in December, but look out in the New Year ☺

Training News

November Skills night on Monday 19th saw another CARS Exam session occur – for Foundation this time...



EX3 Success: Two more successes! - John O'Connell & Stephen Woolford

December Exams – We are now full!

During the month of December, we have 22 candidates sitting Exams...

- 14 Advance; 4 Intermediates and 4 Foundation – Good luck to them all!

Callsign Badges

CARS Callsign Badges are available at a cost of just £3.50 each.

Payments with order.

Please give details to the Membership Secretary - Name, Callsign and CARS Logo or not.



Badge examples inc the Logo

Is this in your Licence - 2?

Following last month's pictures here is another one – as used on November Skills Night Quiz

- Question: Is this in your Licence ?
- IF so – where ?

**December is YOTA Month**

Youth On The Air - YOTA Month takes place each December across IARU Region-1, encouraging youngsters to get active on the air and experience practical elements of the hobby. So do join in and have a bit of fun this winter and encourage the next generation. The following stations in the UK will be hosting the GB18YOTA call sign:-

December	Station
1	Aberkenfig Radio Club
3	Sandringham School Amateur Radio Club/Verulam Amateur Radio Club
5	Swansea Radio Society
6	Silcoates School
8	Hilderstone Radio Club
12	Southampton University Wireless Society
14	Durham & District Amateur Radio Society
15+16	RSGB's NRC, Bletchley Park
19	Chelsea Pensioners Radio
21	Castle Rushen High School Radio Club
22-24	Chertsey Radio Club
28-29	Jamie Williams, M0SDV
30	Telford & DARS

GB18YOTA Station schedule

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