



Chelmsford Amateur Radio Society Newsletter

December Meeting
Tue 7-Dec-2021, 7:30pm
Online by Zoom

Unusual Clubhouse of the FBK
By Peter Ebsworth LB0K / G8CKB

Our December talk on Tue Dec 7th will have a seasonal Nordic flavour as we get closer to Xmas:

Peter Ebsworth, LB0K / G8CKB, will talk about the history of broadcasting around the city of Bergen in Norway and especially of the transmitting site at Erdal which includes a Marconi transmitter, that is now a venue for Norwegian Amateur Radio Club **LA1ASK**.

On site are former Telefunken and Marconi broadcast transmitters. One of the remits is to continue broadcasting from the site, as a museum activity and to keep a (national) presence on the Medium Waves, on 1314 and 1611kHz.

Zoom:

Quick Link:

<https://us02web.zoom.us/j/87469816487?pwd=c0ZDV29LUmIOL09NNDBHc29SZHRPQT09>

- Meeting ID: 874 6981 6487
- Passcode: 551028



Following the AGM Subs are now due – again at the special rate of just £5 for the coming year!

Pay online via PayPal at <http://www.g0mwt.org.uk/society/membership/e-form.htm>

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Club Diary

Tue 7-Dec-2021	Meeting - The Unusual Clubhouse of the FBK	Online by Zoom
Dec-2021	Transatlantic Anniversaries – Dec -1901 and Dec-1921	On Air
Wed 22-Dec-2021	Xmas Committee Meeting – all welcome	Danbury
Tue 4-Jan-2022	Meeting – Cheating at Maths using Computers	Online by Zoom

Club Nets

CARS meets for talks/events on the first Tuesday of the month. The subsequent Tuesdays have club radio nets as follows below and dates listed on our calendar at www.g0mwt.org.uk/main/events/categories/net/ :-

- **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

CARS Training classes have restarted at Danbury – the training page has been updated to show sets of 2wk fast-track courses at Danbury intended to complement online material and online exams.

A new slide set for SDR has also been released to support the latest Syllabus

If you are interested in these or other opportunities in 2022, please contact **John O'Connell M0JOC** our training coordinator and Exam Secretary

John can be contacted via training2021@g0mwt.org.uk or 07868-004380

More info and other updates are at: www.g0mwt.org.uk/training

Online Morse Classes: Thursday evenings at 7pm. Coordinated by Andy G0IBN who has on-air practice sessions and via Skype too... <https://join.skype.com/clsfKXKmlNvf>

- contact Andy via morse2021@g0mwt.org.uk



Follow @TrainWithCARS

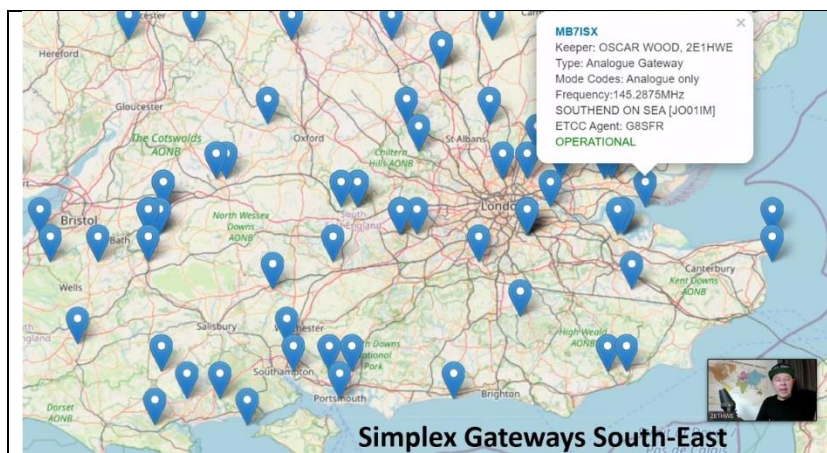


Follow @ChelmsfordARS

November Meeting: AllStar Gateway MB7ISX

For our last meeting a turnout of over 40 joined us on Tuesday November 2nd for Oscar Wood 2E1HWE who talked about the MB7ISX 145MHz AllStar Analogue Simplex Gateway and the wider FreeStar network it connects to.

Oscar is an enthusiast for analogue VHF FM connectivity as it is simpler and more accessible than many other Digital modes. He first introduced the general area of low power gateways which are one of the few NoVs that Intermediate licensees can apply for via RSGB-ETCC - the permits are typically ~1W and on shorter 12 month renewable terms (compared to the 3 year NoVs for Repeaters). Locally in Chelmsford, ERG has MB7IDA that has provided an Echolink service for many years, but in practice there are many more (mainly on 2m and 70cm but also 10m, 6m, 4m and 23cm)



Callsign: MB7ISX

Location: Southend-on-Sea

Frequency: 145.2875 MHz NBFM

CTCSS access: 110.9 Hz

Allstar Node ID: 53789

Echolink access:

Node 666727, MB7ISX-L

All gateways combine a radio with some form of logic controller and internet connectivity. Oscar showed how MB7ISX is based around a converted Motorola GM340 ex PMR radio with Raspberry Pi and external sound interface. The radio requires an external fan for long transmit cycles (even at low power) when on nets; and an external remote closedown unit to satisfy the NoV conditions. Users in range need to set the usual 110.9Hz CTCSS access tone (similar to GB3DA etc).



Radio - Motorola GM340 (ex-PMR) with extra cooling fan



Raspberry Pi 3B+ Logic Controller with HAMVoIP



Soundcard to convert the radio analogue sound into the RasPi

AllStar: Oscar then explained more about the AllStar network links. This is a full duplex system using voice-over-internet-protocol (VOIP). If accessing it via the internet directly (as opposed to RF) you need to register as an amateur and have a node number assigned to you. Allstar is a network of amateur radio repeaters, remote base stations and hot spots. The software (based on open source Asterix PBX) runs on a variety of dedicated computers including a Raspberry Pi. Connections from Echolink and other VoIP systems are supported and it has grown globally to over 20000 nodes/users.

FreeSTAR: In the UK this was developed in early 2021 to manage/merge connections between analogue and digital technologies. Its ethos is based on 'Freedom to connect'. A key driver for this multimode initiative has been to interface/bridge to the increasing variety of fairly incompatible digital systems such as DMR, Fusion, P25, NXDN etc

Activity: In June 2021 both MB7ISX and ERG-MB7IDA supported the Gateways On the Air (GOTA) event. The aim of **GOTA** was to encourage portable/mobile activity through the network to linked simplex gateways which are accessible to all licensed amateurs, especially new M7 Foundation licensees who only have low power. The event ran between 12th and 20 June 2021 and included the GB1GOA special event call and a couple of handheld radios as activity prizes.

Operating Tips: Oscar advised that to allow for latency etc to leave a 3 second gap between overs, have a 1-2s pause after PTT before talking and to keep overs under 3 minutes to avoid timeouts

Our thanks to Oscar for a very well presented and popular talk and demonstration

Useful links

- MB7ISX: <https://www.qrz.com/db/MB7ISX>
- Allstar: <https://allstarlink.org/>
- GOTA: www.gota.org.uk or <https://gotafreestar.network/>
- Freestar: <https://freestar.network/>
- RSGB-ETCC: <https://ukrepeater.net/>
- Asterix: <https://www.asterisk.org/>

New RSGB EMF Calculator

The RSGB have launched a new version of the RSGB EMF calculator v11d which is now available in a new **browser-based version** as well as the spreadsheet version. You can find both versions **on the RSGB EMF website**

The web browser version does not require you to have Excel or another spreadsheet on your computer.

This update includes some minor additions and corrections to the data used for Pre-Assessed Equipment Configurations (PAECs) and there are lots of new features in the browser app version.

The app runs within your web browser, so no data leaves your machine unless you create a backup and share the file.

More information can be found on web pages: www.rsgb.org/emf and www.ofcom.org.uk/emf

For Sale: More Items Available

For the items below, please contact Colin G0TRM colinpage10@btinternet.com .

Buyers to Collect.



Yaesu FRT-7700 Antenna Tuner £15



Yaesu FRV-7700 VHF Converter £15

Free:

Description;

Manufacturer: H.W.Sullivan

AC Test Meter 25 Amp 500 Volts 250 Watts



Colin G0TRM

January: "Cheating at Maths Using Computers"

On Tuesday 4th January we welcome back Damian Bevan G4WPO. A more serious title for this talk would 'Using computers to solve mathematical problems'.

In 1936, in the 'age of electricity', Alan Turing presented his machine which he hypothesised was able to compute anything which is capable of being computed.

It turns out that around a century earlier, back in the 'age of steam', Charles Babbage and Lady Ada Lovelace had already been having similar thoughts about mechanical computing engines, designed to solve mathematical problems. In those days, human 'computers' were used to laboriously



Charles Babbage, Ada Lovelace and Alan Turing

calculate and tabulate the solutions to maths problems ranging from trigs and logs, to astronomical, nautical, banking and insurance information etc.

Nowadays, computers are immensely more powerful than they were in either Babbage's or Turing's time. Damian will touch upon some modern computing tools, which are available to us all in order to solve everyday problems, before briefly wondering whether computing has anything to say about the nature of our lives and the universe itself.

Zoom:

- Meeting ID: 871 2660 8028
- Passcode: 144180

Silent Key: Ken Whittle G7RFT

CARS Member Ken Whittle G7RFT, born 6th January 1936, became a Silent Key on 4th October 2021, age 85



From Geoff Lovegrove G7KLV:

I first met Ken at the radio club. It was about 15 years ago as far as I can remember. Like myself he had worked for Marconis for many years. However, he had been based at Great Baddow and our paths had never crossed. Although I believe that we had shared the same boss, Dr George Grisdale, but at different stages in our careers.

My advancing years have caused me to be unable to remember when we were first introduced at the Radio Club, however, we discovered that we both enjoyed the same sort of music. This led to a number of years of weekly visits to Brentwood Jazz Club. We both appreciated the same music and enjoyed each other's company.

Ken was always happy to be taxi driver. I was very grateful for this as I had stopped driving. He was also good enough to take my friend Margaret on one occasion.

Unfortunately, due to Jean's declining health our evenings out came to an end as he was reluctant to leave her. This, and of course Covid, meant we had not been in touch for some time.

I was surprised and sorry to read of his death in the Essex Chronicle at the beginning of October.

From Paul G4PVM:

I worked on HF surface wave radar with Ken in the early 80s. We had a nice cruise out of Falmouth on HMS Londonderry. I don't remember him being involved with the Australian HF sky wave system but he may have been.

From John G8DET:

In 1982'ish we had a chat about the French Exocet Guided Missile which did a lot of damage to the British ships during the Falklands Conflict – apparently he was working on a Marconi modification to track it.

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Editor: editor@g0mwt.org.uk

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