



Chelmsford Amateur Radio Society Newsletter

December Meeting

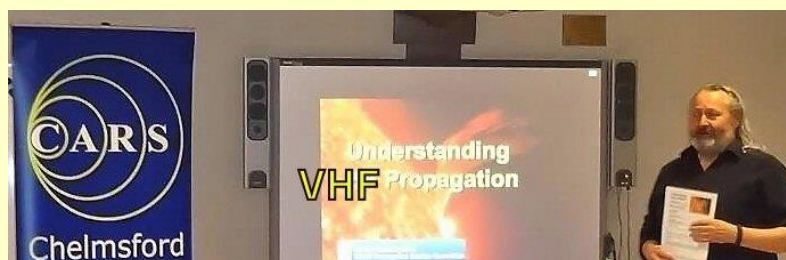
Tue 1-Dec-2020, 7:30pm

Online by Zoom

VHF Propagation

By Chris G0IPU & Steve G0KYA

Our seasonal December meeting cannot easily do mince pies but we do have some other treats. Following the HF Propagation talk in January, we complete 2020 with VHF Propagation.



Chris G0IPU along with a video by RSGB

Propagation Chairman Steve Nichols G0KYA will dispel the myths that VHF is short range line of sight. From getting DXCC on 50MHz to 1000+km on 2m/70cm, (not forgetting contests, Sporadic-E, Moonbounce and deep space) DX is possible and really educational too!

RSGB: We will also be joined by our RSGB regional rep David M0MBD who will have info on recent topics inc Clubs, EMF exposure, reporting on-air abuse to Ofcom, VDSL interference etc (and promise more sunspots for 2021 propagation!).

Do join us for a great opportunity to learn, ask questions or pass on Seasons Greetings!

Zoom:

- Quick Link: <https://us02web.zoom.us/j/86913110258?pwd=bIVISVBkN1pmNIRFRVB1TGFGUW9TQT09>
- Meeting ID: 869 1311 0258
- Passcode: 240989
- Admin: John M0JOC (full clickable links also in newsletter/email)

**Reminder - CARS annual subs are now due now!!
- at the special £5 'Covid rate' for 2021**

In this issue:-

Club Diary.....	2	1960s Field Days	4
Club Nets.....	2	Huge DX on 144 MHz	5
Training & Morse Classes	2	Wanted: Volunteers	5
November Meeting: Alan Turing	3		
Wanted: Marconi 365 Key	3		

Club Diary

Tue 1-Dec-2020	Xmas talk – VHF Propagation & RSGB Regional Update	Online by Zoom
Tue 5-Jan-2021	Talk: Data Networks using IoT Devices - Phil Pearson G0UIB	Online by Zoom
Tue 2-Feb-2021	Talk: Forewarned is Forearmed – Nigel Newman M0ICH	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

If you are interested in the new RSGB online exam or other opportunities, please contact **John O'Connell M0JOC** our training coordinator and Exam Secretary

John can be contacted via training2020@g0mwt.org.uk or 07868-004380

Note: RSGB now have all three levels of exams available via their online exam booking system. It also has new Foundation training videos online at: <http://rsgb.org/foundation-practicals/>

The Bath-Based Distance Learning (BBDL) team are restarting their courses. The first new BBDL course will be for the Intermediate level, running from November 2020 to March 2021. To register your interest, contact the Team Leader, Steve Hartley, G0FUW, via email to g0fuw@tiscali.co.uk.

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

Morse classes at Danbury are suspended – but do contact Andy G0IBN who has on-air practice sessions

 Follow @TrainWithCARS

November Meeting: Alan Turing

For November, we were pleased to host an online talk by Damian Bevan G4WPO for a fascinating insight into the life and work of Alan Turing.

Alan Mathison Turing was born in London in 1912 and awarded a 1st class honours degree in mathematics from King's College, Cambridge in 1934. Aged 22, he was elected a fellow of King's in 1935 on the strength of a dissertation proving the Central Limit Theorem in statistics.

One of his first key contributions came in 1936 when he published his seminal paper 'On Computable Numbers' which introduced the concept of a universal general purpose computer – years ahead of anything that electronics could do.

A Turing Machine is simply a Read/Write head moving over an infinite tape which can store input or intermediate data, controlled by a Finite State Machine. Such a FSM defines the computer 'program' making a Turing Machine the simplest 'general purpose' computer, i.e. a machine which can compute anything.

In the run up to WW2, Turing was recruited as a cryptanalyst for crucial code breaking work at Bletchley Park. One of his next key contributions was the Bombe – a mechanical calculator that could identify the highly variable setup of German Enigma machines.

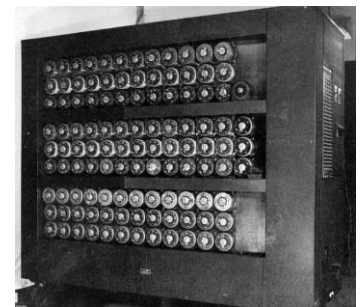
Whilst knowledge of Bletchley was kept a secret for many years afterwards, he applied his skills to early post-war computing. In the late 1940s-early 1950s there were many rapid developments in computer technology, as fundamental new concepts and technologies were being invented and explored. This included (valve) electronics, binary logic, 'Turing completeness', re-programmability, stored program control, various computer architectures. Turing participated in these developments at a number of civilian institutions, notably:-

- NPL and the 'Automatic Computing Engine' (ACE) computer
- Manchester University and its various machines

He was also thinking further ahead including Artificial Intelligence. This resulted in his landmark 1950 paper that introduced the 'Turing Test - a method of for determining whether or not a computer is capable of thinking like a human being.

Sadly his personal life caught up with him when in 1952 he was arrested for being a homosexual and underwent hormone treatment to 'cure' it, causing illness and depression. This ultimately led to his suicide in 8th June 1954 at a relative young 42 years old.

Our thanks to Damian for a superbly researched and presented talk.



Wanted: Marconi 365 Key

John O'Connell M0JOC is looking for a Marconi 365 straight key, type A or B or EZ...

Ex Merchant Navy Radio Officer seeks a long lost friend

Rather than being hidden/lost in a cupboard, I'd be happy to pay the going rate and if necessary restore one to its former glory etc etc.

Contact: John M0JOC – m0joc@g0mwt.org.uk

1960s Field Days

Ongoing archive work by Paul G4PVM has been filling in more details on CARS Fields Days in the past. The latest records to come online are for the 1960s. The link below has full info, with some samples here.

In 1960 Chelmsford group entered the single station section, using G6ZC/P, operated by Harry Lowe G2HPF and Dick May G3KTF, won the Bristol Trophy as leading single station. A recent photo of the trophy (see right) courtesy of the RSGB still shows the winning Chelmsford team being engraved on the left-hand side.

Continuing in 1961 one of the more famous pictures was the Chelmsford catapult team erecting a wire antenna over a tree – and then sorting out their generator. 1961 was also the last year that the separate Danbury group entered. The website now has more at: http://www.g0mwt.org.uk/society/field-days/1960_field-days.htm



Left to Right: Eric Edwards G3NAB pulling the catapult; Paul Ives G3NIW, Ralph Polley G3NAA holding



1961 NFD Generator - Ralph G3NAA, Paul G3NIW, Eric G3NAB

Apart from the excellent 1960 trophy win, the best result was 12th position in 1968. By 1969 the NFD committee comprised Ron Ferguson G4VF, John Naunton G8CYI, Paul Selwood G3YDY, Malcolm Salmon G3XVV, Tom Carter G3VCF, Paddy Marris and Don Beattie G3OZF (now G3BJ). A table of the overall scores has been compiled below:-

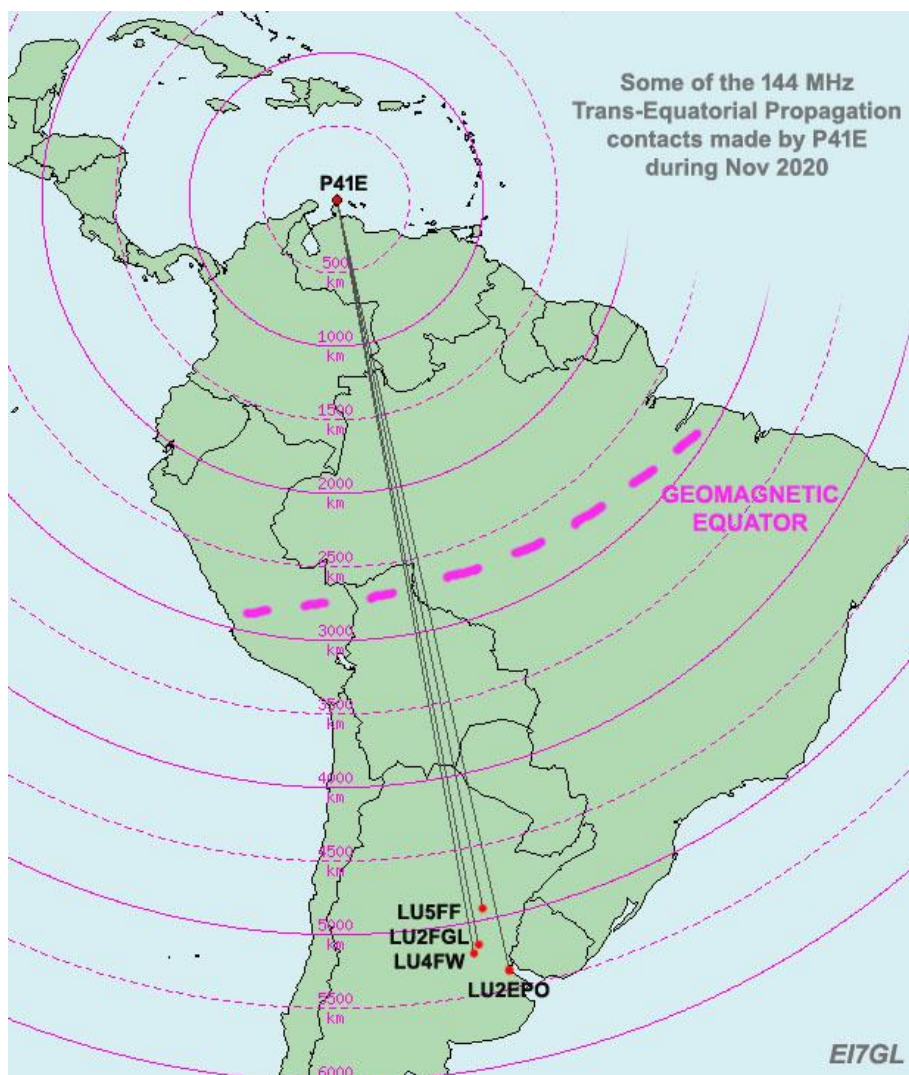
Year	Section	A station	B station	1.8 MHz	3.5 MHz	7 MHz	14 MHz	21 MHz	28 MHz	Points	Position
1960	Single station	G6ZC/P	-	253	308	296	0	0	0	857	49 th
1961	Two station	G6ZC/P	G4VF/P	163	282	168	249	44	0	906	45 th
1962	Two station	G5IX/P	G4VF/P	126	277	473	146	21	0	1043	40 th
1963	Two station	G6ZC/P	G4VF/P	184	510	341	30	51	0	1116	25 th
1964	Two station	G6ZC/P	G4VF/P	289	426	366	132	6	0	1219	15 th
1965	Two station	G6ZC/P	G4VF/P	350	542	417	75	40	16	1440	16 th
1966	Two station	G6ZC/P	G4VF/P	230	566	316	78	71	0	1261	23 th
1967	Two station	G6ZC/P	G4VF/P	206	459	440	50	2	53	1210	18 th
1968	Two station	G6ZC/P	G4VF/P	171	410	356	89	80	10	1116	12 th
1969	Single station	G4VF/P	-	0	264	273	267	0	0	804	27 th

Huge DX on 144 MHz

Who says VHF propagation is just to the horizon? Whilst 50 MHz Sporadic-E is quite well known there are other mechanisms and paths.

Below from the EI7GL vhf website is a recent report on 144 DX across the pond – in this case **5400 km** !

<https://ei7gl.blogspot.com/2020/11/5400km-tep-opening-on-144-mhz-between.html>



Wanted: Volunteers

Following the CARS AGM, we still have important **Vacancies to fill:-**

PR/RadCom, Newsletter Editor, Equipment Manager, Event/Operating roles and other volunteers

Please contact Colin G0TRM or Chair Elliott

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Editor: editor@g0mwt.org.uk

Newsletter and Archive: <http://www.g0mwt.org.uk/newsletter>