



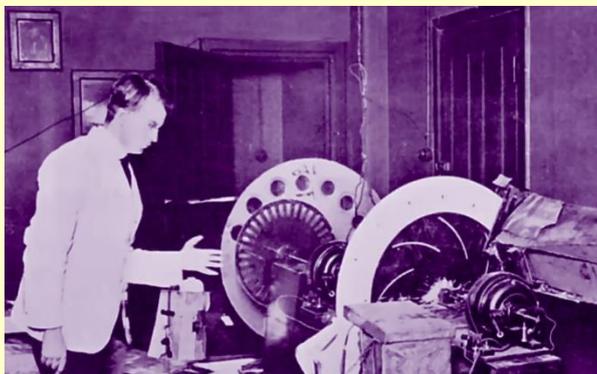
Chelmsford Amateur Radio Society Newsletter

May Meeting

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

Broadcast TV Development

By Andy Beaumont



For May, we are pleased to host Andy Fremont who is involved with the TV collection at Sandford Mill and will take us on a brief tour of Broadcast TV development.

His talk will start with the 'Nipkow disc' used by Logie Baird for his mechanically scanned system, which by 1948 had been overtaken by the Image Orthicon camera tube and the Marconi-EMI system.



The Orthicon saw us through to the start of the 60's when the Plumbicon appeared, so a little about that and then we are ready for colour! Marconi also did other broadcast equipment inc the B3410 telecine, which lasted until Digital started to appear.

So do pop along for what promises to be a really insightful and expert talk

The famous CARS Raffle and refreshments will feature too!

Raffle Volunteer Wanted: We need a new volunteer to purchase a given number of prizes for the monthly Raffle at the Club meeting. Some £12 to £15 is currently being spent each month on prizes. The amount is not fixed and it is hoped that the current small flow of monthly prize donations will continue as always.

In this issue:-

Club Diary.....	2	International Marconi Day 2019.....	5
Club Nets.....	2	April Skills Night	7
Training & Exam Dates	2	Training	8
April Meeting: Canal Journey	3	Radio Clock.....	10
CARS Tabletop Sale – 17 th June 2019	4	RSGB NRC-Bletchley Record.....	10
RSGB Cricket World Cup Marathon	4	Shack Clearout – Fax Machines	11

Club Diary

Tue 7-May-2019	Broadcast TV Development – Andy Fremont	Chelmsford – Oaklands Museum, 7:30pm
Mon 20-May-2019	Skills Night (and Exam Session EX10)	Danbury Village Hall 7:00pm
Tue 4-Jun-2019	Beam Building – Dave Cutts M0TAZ	Chelmsford – Oaklands Museum, 7:30pm
Mon 17-Jun-2019	CARS Annual Table Top Sale	Danbury Village Hall

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.

The first half of 2019 has busy for Foundation and Intermediate training – see more info and dates online

Remember that the syllabus changes in Autumn 2019, so contact asap if you want an exam before that!

We also have exam slots in June/July for Advanced - inc those taking the Bath Distance Learning course

Our training manager Peter M0PSD is keen to hear from candidates for the courses, as well as any needing practicals or other help. We also have other Exam slots available – see Training on Page-10

Course	Dates	Comment
Advance-23R	Thu Jul-11 th	Advance - with opportunities of mocks and others before

Contact: Peter Davies M0PSD, training2019@g0mwt.org.uk Web: www.g0mwt.org.uk/training



Follow @TrainWithCARS

April Meeting: Canal Journey



For the April meeting we had a double feature. For the main session before the break Vic Rogers G6BHE recounted his hard work and experiences on 'A Canal Journey' up the Grand Union Canal.

This entailed travelling from Harefield to Leicester - 118 miles, 128 locks, 8 swing bridges and 4 tunnels, single handed in 7 days!

For anyone who has been on a canal – all those locks etc can be quite an effort!

After the break, the raffle was drawn and there was a short Q&A 'Brains Trust' session, with questions including the latest position on plans for IMD.

Our thanks to Vic who is also the South Essex District Rep for RSGB. So whether it's boating or radio – he is always pleased to hear enquiries!



Vic getting his speakers mug from Colin G0TRM

CARS Tabletop Sale – 17th June 2019

Early notice that CARS is holding its annual **Radio & Electronics Tabletop Sale** on Monday June 17th.

Venue: Danbury Village Hall - Main Road, Danbury, Chelmsford CM3 4NQ

The tabletop sale will be held in the main hall. All good condition amateur, audio, electronic, electrical, photographic, computer and associated equipment may be offered for sale. **Sellers Tables are £3 each.**

- **FREE ENTRY - but please buy a Raffle Ticket!**
- **NO ENTRY TO MAIN HALL FOR BUYERS UNTIL 7:30pm**
- **ENTRY TO MAIN HALL FOR SELLERS FROM 6:45pm**
- **REFRESHMENTS AVAILABLE**

FOR FURTHER DETAILS: Colin Page G0TRM 01245-223835, or e-mail colinpage@ukgateway.net

RSGB Cricket World Cup Marathon

You have probably read that the RSGB is organizing a “radio marathon” to celebrate the cricket world cup. The event will run from 30 May until 14 July.

From the UK, **31 special callsigns will be active** with a prefix GB19 on the HF bands (CW, SSB and digital modes). A number of awards will be available.

You also have the opportunity to participate as an activator of one of the special callsigns. This is an excellent opportunity for some really fun radio operating. All Full licensees who are RSGB members can operate, either in a local radio club or group, or simply operate from home. You don't have to be a cricket fan to take part.

I am the coordinator for **GB19BAN** which represents the Bangladeshi cricket team. Please sign up to operate for one or more sessions by sending me an email: GB19BAN@rsgbcc.org. The GB19BAN QRZ page has more details.

I hope you enjoy the event.

73 Paul G4PVM

Useful Links:

- <https://www.qrz.com/db/GB19BAN>
- <https://www.rsgb.org/cricket>



International Marconi Day 2019



Following protracted uncertainty regarding Sandford Mill, CARS were kindly hosted by the BAE Systems Great Baddow ARC (aka GBARC) for IMD 2019 on Saturday 27th April, arranged by Paul G4PVM. The station was set up on the former Marconi Research Centre site at Great Baddow near the Chain Home radar tower.

The improvised setup comprised the CARS Icom IC756 Pro-3 running 100W into a doublet antenna supported by a 50 foot Clarke's SCAM mast supplied by Dean G4WQI.

The weather was poor with high winds and rain from Storm Hannah.

Undaunted, the team made 66 QSOs (11 CW and 55 SSB) on 80, 40, 20 and 17m. We worked eight other Marconi Day stations:-

- GB4IMD in Cornwall,
- GB4MBP at Bass Point on the Lizard, Cornwall,
- DA0IMD at the lighthouse on Borkum Island,
- IY5ARS Circolo ARS in Prato, PA6IMD in Gouda,
- GB0IMD in Weston-super-Mare,
- EI0MAR in the Howth Martello Tower near Dublin, and best DX...
- KM1CC at the Marconi Cape Cod Radio Club

CARS members attending:

- Andy G0IBN
- Colin G0TRM
- John G8DET
- Kevin 2E0FEQ
- Oliver M0WAG
- Paul G4PVM
- plus Dean G4WQI and Steve M7ECF.

The highlight of the day was a visit by 91 year old Ron Quested and his daughter Helen. Having been to Sandford Mill and found nothing they tracked us down via the CARS web page. Ron is an ex-merchant navy radio officer and regaled us with stories of his training and tricks he played on people with his identical twin Len who lives in Australia. He was delighted to send some Morse with a straight key and he recorded a message to send to his brother Len.



Dean's 50ft Antenna

Cont'd...



Radio Officer Ron

91 year old Ron Quested, with his daughter, from Blackmore, had arrived at Sandford Mill for Marconi Day and there was no-one there! In 1943 Ron had been a Radio Officer on a merchant navy ship assisting in the Sicily landings.

Ron had visited Sanford Mill in 2012 and had enjoyed himself so much he wanted to re-visit. Somehow he managed to find out where we were.

We explained to Ron what we were doing, he was very impressed with our radio skills and the speed of the Morse code. He enlightened us with stories too numerous to be written here.

One story was of his ship arriving in port. The skipper could see "Sparks" already on the jetty. How can that be? The ship was still trying to secure to the jetty?!

"I want to see Sparks when he comes aboard, I want to know how he managed to get ashore?"

At the age of 17 Ron and his twin brother (now in Australia) had both become Radio Officers and joined the Merchant Navy.....It was his twin brother in full uniform awaiting a reunion!!



Andy Kersey G0IBN and the radio kit

IMD Photos/text by Paul, John, Colin, Andy & Helen

April Skills Night

Monday evening, 7pm April 15th 2019, was Essex Skills Night, run by the CARS Training Team. Radio and practical demos were supported by club members and Essex CW. The club table had Pauline M0XPK welcoming arrivals and a selection of bargains as part of a mini-tabletop sale

Practicals were ran in the Hawkins Room, whilst Morse Appreciation was available from Dean G4WIK and Rob M0KCP from Essex CW Club. The evening had a Foundation exam running and was rounded off by another fun quiz from Murray G6JYB. A big thank-you to Jacky M6OJG and the team in the kitchen.



Members trying out the club Icom 7300 SDR – and some Essex CW advice & radio practice



Bargains and chatter - and Trevor M5AKA our raffle winner!



New this month was a mini-VNA demo by Geoff M0YJF

More Info: <http://www.g0mwt.org.uk/skills>

Next Event: **Monday 20-May-2019**

NB: Skills Nights are a great opportunity if you need a Training Practical or even an Exam session!

Training

April and early May have proven to be a busy and successful one for CARS Training.

On April 15th Foundation Session EX9 held in parallel with Skills Night resulted in four Foundation passes



Four happy Foundation candidates after Session-EX9 on Monday 15th April

Just over a week later we had more - an Intermediate and two Full passes:-
(inc training team member Pauline, who is now M0XPK)



Intermediate (Left) and Advanced (Right)

On Thursday May 2nd Intermediate Course-18 which had been running thru March and April finished with a full house, when all five candidates passed comfortably:-



All five successful Intermediate candidates from Course-18

More Training Dates in 2019...

Exam Sessions

We have Danbury booked for these Exam Sessions

- EX10: Monday May 20th
- EX11: Monday June 17th

In addition if you are prepared to pay for the room hire, CARS can accommodate you at other times – contact our training manager Peter MOPSD

Advanced/Full Exams

- 23R Exam (with mock possible on Thu Jul-4) Thu 11-Jul-2019
- 24E Exam (with mock possible on Thu Nov-28) Thu 5-Dec-2019 (For New Syllabus)

These sessions are also open to foundation and Intermediates

NB: Advanced Revision classes are subject to demand and tbc

Radio Clock

Radio – but not Amateur Radio! - A Radio Controlled Clock.

I “found” a large clock in a skip many years ago – it was driven by the mains. This meant it had a lead and kept good time from the 50Hz mains.

Problem – it had a cord and occupied a mains socket but twice a year it displayed the incorrect time – the clocks had changed.

Going back a few (30!!!) years I used to have 24 clocks which had to be changed twice a year but I am now down to wrist watches – and this clock. Enough was enough – this one had to go but then it was big with a lovely dial which can be read yards and yards away – without glasses – so no, it had to stay....

Using my search engine I found a firm selling a Radio Controlled clock insert with the usual 19mm dia hole so ordered one from the internet. I could have chosen one for £259, but I thought £11 was about right, including P&P.

It turned up in a weak jiffy bag with bent hands but after 10 mins of careful bending straightened them and fitted it.

The instruction said ‘fit the hands in at the 12 o’clock position, fit an AA Battery and pull out a red peg’ – off went the second hand followed by the minute hand but it did not stop at the correct time. Obviously the unit was faulty or it could not obtain the radio signal from Scotland.



The instructions suggested I press the “Reset” button and I put it on the wall where it would hang and left it. After a few hours it showed the correct time and now happily quietly ticks away. It will check the time on the clock a few times during the night and reset itself if it is more than a few seconds out – mine seems OK.

So I have achieved the aim – no ugly mains cord – another mains socket freed up - one less clock to worry about – until the battery goes flat!

John G8DET

RSGB NRC-Bletchley Record



Whilst IMD was underway, the RSGB AGM was being held in Birmingham. One outstanding award for the was for the folk pictured – the volunteers at the RSGB National Radio Centre at Bletchley.

Last year they welcomed **55,232 visitors** to the amateur radio exhibits. This year there were 9355 visitors in April which was 3x last year and a total so far of 27,077 in 2019.

Shack Clearout – Fax Machines

My daughter came last weekend and “cleared my office out”. Having downsized from Danbury to Chelmsford much of my Office was filled with plastic boxes put down by the movers – such that I could not gain access to the cupboards at the end.



Many boxes of books went to the Community Book Shop and nic-nacs to Oxfam next door. This left a few things for E-Bay and the tip. I thought my lovely Panasonic Fax machine would get a fortune on E-Bay but I found a few for sale with no bids and few had sold in the past for £4.99, P&P free! So it was put in the pile for the tip until I realised it was filled with Fax numbers associated with my job and highly classified! So I took it apart to find the memory chip and destroy it which I have.

Now in my time I have taken apart hundreds of pieces of equipment but I have rarely looked at something so beautifully made – all Fax's, I think, were made in Japan at the time I obtained mine – 1986. Just look at the Mains in – two Ferrites going to high voltage capacitors followed by two longitudinal chokes and more capacitors. I think there are two Surge Protectors as well. This should protect the unit from poor mains.



A recent high voltage surge on my house blew up the Burglar Alarm (£1,000 to replace) and my Dishwasher ((£450 to replace). Looking at the PSU – beautifully made with Ferrite Chokes on all output leads. 5 years ago my APC Computer PSU alerted me to the fact I had high mains – 265volts for at least all of one afternoon – agreed by the District Electricity Engineer who attended – they had changed a transformer in Sandon and were sending high volts to Danbury and had not backed it down in Well Lane. Two weeks later they paid to replace my lovely fridge which failed. No-one else in Danbury seemed to know what had happened but simply accepted many of their white goods failing.

When taking equipment apart I look for scorching from poorly designed, specified or constructed PCBs – initially nothing seen – this was very unusual and nice as my Fax had really been heavily used for 7 years without a fault. Some of my Fax's sent and received were a metre long.

This set me thinking – units built for commercial use have to be built to a different standard to those for amateur use, generally. The first is the anticipated 100% duty cycle for commercial use. My Fax was only ever switched off when I moved house.

In 1967 I had the job of taking apart the Marlborough Post Office Repeater Station which was installed in 1926 by AT&T of America – most of the valves were original and had never been switched off – they were Bright Emitters – with black metal cans to protect them from possible light which changed their gain. They

were carefully packed and sent to a number of Museums in the USA & UK including the Science Museum in London.

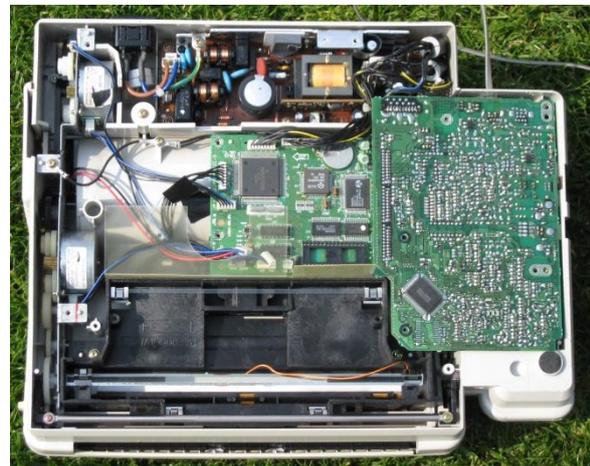
Amateur equipment on the other hand would generally not be subjected to such use except now the Repeaters and TXs used for Data transmission.

In the days I ran 100 Watts on 2Metres I was working a PA0 who also used a QQVO- 640 but 200 Watts. I asked him how? "I have 1.200 Volts on the Anode, I blow it well, until how you say in English, it goes poof" - was his explanation.

However looking more carefully I can see a little darkening around two chains of 3 x 22K resistors – more I think from the air flow than burning of the paper PCB. There was no sign of heat charring on the resistors themselves.

I liked my Fax – I had a record of when it was received by who I had sent it to unlike E-Mails. One day I rang up the office in Atlanta USA and requested them to put a new roll of Fax Paper in their machine – the young lady came back on the phone and said – "yes, it was out – are you in the next office and could see it was out" – "No" I said, "I am in London", much to her amazement. One problem was the paper is thermal and fades in the Sun and time.

The NHS still use Fax but have been told to replace it in the next couple of years – unfortunately stand-alone Fax it is not easily integrated with E-Mail driven data.



John Bowen G8DET



CHELMSFORD AMATEUR RADIO SOCIETY

ELECTRONICS TABLETOP SALE

MONDAY JUNE 17th 2019

DANBURY VILLAGE HALL

Main Road, Danbury CM3 4NQ

Doors Open to buyers 7.30pm

Entrance is Free
But, Please Buy a Raffle Ticket!

All Essex Radio Amateurs, SWLs & Other Electronic Enthusiasts are invited to attend as either sellers or buyers or just come and have a look.

All Amateur, Audio, Electronic, Electrical, Photographic, Computer & Associated Equipment may be offered for sale

TABLES £3

ENTRY TO MAIN HALL FOR SELLERS FROM 6.45PM

REFRESHMENTS AVAILABLE
Donations Appreciated.

FOR FURTHER DETAILS OR TO BOOK A TABLE

CONTACT: Colin Page G0TRM 01245 223835

e-mail colinpage@ukgateway.net Club web site www.g0mwt.org.uk

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