

Chelmsford Amateur Radio Society

Affiliated to the RSGB

President: Harry Heap G5HF
Secretary: David Bradley M0BQC

Club Call Sign: G0MWT

Chairman: John Bowen G8DET
Treasurer: Brian Thwaites G3CVI

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Newsletter No.434

March 2002.

The March Meeting.

Marconi, The Saga by Professor Roy Simons OBE.

As most of our readers will know, organisations and enthusiasts everywhere have recently celebrated the 100th. anniversary of Marconi's first transatlantic telegraphic transmission made on December 12th. 1901.

At the time, and many times since, the great and the good have expressed many arguments for and against the validity of Marconi's claims. Do you think it was possible, given the great distance, the basic standard of the equipment together with antenna problems, that those three magic dots were actually heard by Marconi and his assistant Kemp?

On **Tuesday 5th. March**, our guest speaker Roy Simons, one time Technical Director for Marconi Radar Systems, will share with us his ideas on this everlasting controversy.

Will your views be changed one way or the other by the end of the evening? Come along and find out.

Our **Chairman John G8DET** will get the proceedings underway at **7-30pm** at our usual venue, the **MASC in Beehive Lane**. By the way, don't forget to buy your winning raffle tickets this month from **Martyn G1EFL** and **Chris G0IPU**.

Dates For Your Diary.

- Mar 5 CARS Meeting. Marconi, The Saga. Roy Simons.**
- Mar 13 CARS Committee Mtg. 7-30pm Danbury Village Hall.**
- Mar 23/24 London Comm. & Comp. Show. Picketts Lock**
- Apr 2 CARS Mtg. Amateur Television by Ian Waters G3KKD.**

Bradwell Power Station.

George G0LKY, who is an engineer at Bradwell, tells us that resulting from the events of September 11th. tours round the generating station are no longer being held. Sorry to disappoint you, but that's it!.

Members' News.

It is with the greatest pleasure that we are able to announce that of the nine Members who attended the Foundation Course, eight passed. They are, ladies first, Christine Cheverall, Suzanne Tokely, John Sanderson, Bob Hastings, Ron Spooner, Jeremy Barley, Rob Barrick Barry Townsend and Paul Northover. Denis Falconer was away at the

time of the exam but will be taking it in the next week or so.

Our hearty congratulations to you all. Look out for them on the air with their new M3 type call signs.

We also offer our congratulations and thanks to Chris G0IPU for all the hard work he put into running and organising the course and to his loyal group of helpers particularly Trevor AKA, Carl PEM, David BQC, Martyn EFL, Brian CVI, 'Big' Jim 2E1GUA, the Repeater Group in the persons of Murray JYB and Clive EUC and to all the other Club Members who provided valuable support in a variety of ways.

Congratulations are also due to Clive EUC who successfully passed the Morse

assessment and to Anthony (our Committee Member) who is now M1FDE.

Chris IPU is a very busy man these days as he is also heavily involved in running an Intermediate Licence Course. He is planning to run another Foundation Course later on but wants to have a well earned breather first! Watch this space!

Welcome to two new Members, George Farr G3UTC and his XYL Jean

Welcome also to new Member Ron Ingate.

The CARS Christmas Dinner.

Following our appeal last month for someone to organise the highlight of our social calendar we have had a very welcome response. Ken G7RFT has put his name forward. There's just one proviso! He would like someone to assist him please! Volunteers please! Contact him on 01245-257088

Quiet at the Back, Please!

A number of Members have complained recently that their enjoyment of our meetings is being spoilt by other Members holding their own separate meetings! As well as being a source of irritation it is rather discourteous to our guest speaker. If you want to chat please retire to the comfort of the bar.

As our Deputy Chairman frequently reminds us at Committee meetings-

One meeting Gentlemen please!

From the Top to the Bottom of the Pile-ups by Ela G6HKM.

It's not been easy but I am gradually getting active again on my favourite band 6M, the magic band as it is known to 6M dx'ers. At the QTH at Gt.Waltham I had a 60ft Versatower and a 5 element home brew yagi, here I have a halo in the loft and a newly installed HB9CV (a 2 element beam) in the bedroom above the dining room where my station is located. For Christmas I had a rotator so this has been installed on a microphone stand together with the HB9CV. The room is quite wide but there is just enough room to rotate the beam with about 2 inches to spare!!! I am mad but at least I know it!

On the operating desk I have a switch so

that I can switch between antennas, so now I have the luxury of monitoring the band on the halo and when dx is heard I switch to the beam. I am now in a position to look forward to F2 propagation and not just the sporadic E openings. I have heard, but not worked, a number of stations in the USA, a station in French Guinea, 2 stations in Brazil and, for the first time ever, 2 stations in Greenland, but have managed to work Bob VEIYX in Canada and have it confirmed with his QSL. In January this year I worked 3 new countries in one morning, Israel, Jordan and Lebanon I was walking on air for the rest of the day! Roy always used to say it was amazing what a bit of dx would do for my morale.

My countries total at Gt. Waltham was 119 and the ARRL DXCC Award, here I have worked (not all confirmed yet with QSLs) 42 countries and 138 Locator squares. I have started to work for the RSGB Awards and already have my first 2 Awards, namely 20 Countries and 25 Squares for 6M, all must be confirmed with QSLs.

To those of you who have indoor antennas do not despair, it can be done but the main ingredient is patience. 6M is not a band you switch on for a bit of operating, you have to monitor all day and every day and catch the dx when it's about. You can listen for days on end and hear nothing, then Murphy strikes and the very day you don't switch on it all happens!!! It's great fun to work during an Aurora. It's much easier on 6M than 2M. I have worked Wales, Germany and Belgium via aurora so far and am looking forward to the next Aurora. I doubt if I will ever achieve DXCC on 6M at this QTH but there is no harm in trying, I always believe in thinking big! **Good luck on 6M.**

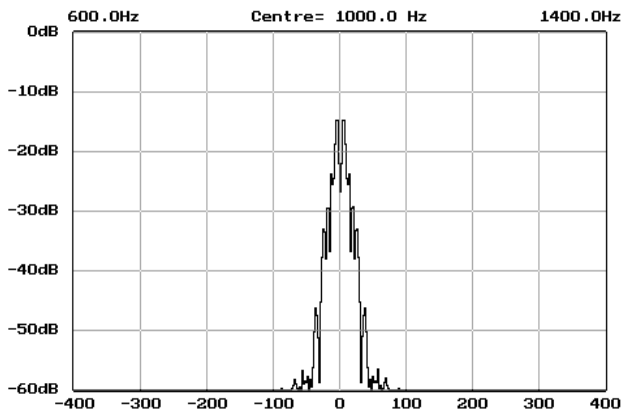
My thanks go to Ken G3PMW and my son David whose help in setting up my station has made the above possible. I just dream up the mad ideas!

Last Month's Meeting. PSK31 by Iain Moffat G0OZS .

PSK31 is a new digital mode of operation. It is a text conversational mode very similar to RTTY. The half-duplex connectionless operation allows listening-in and group working. Iain Moffat G0OZS

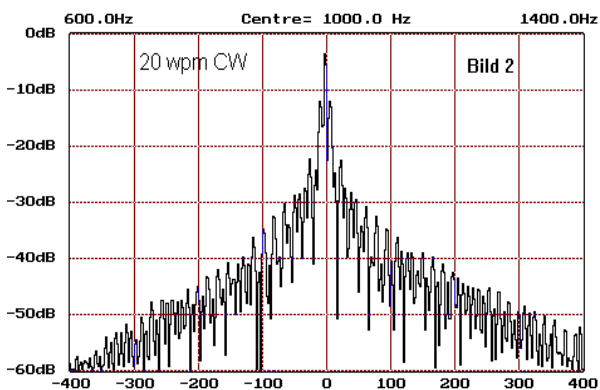
brought an effective video-projector, and in conjunction with a laptop PC explained all about PSK31 and showed PSK31 software in use.

PSK31 was originally developed by Peter Martinez G3PLX from SLOWBPSK by Pawel Jalocha SP9VRC. PSK31 uses Manchester-encoded data at 31 bauds which modulates the carrier with phase-shift-keying (PSK). The low data rate and envelope shaping result in a narrow bandwidth of 62Hz (-60dB points).



Bandwidth of a PSK31 signal.

This is narrower than Morse, and means more users can be fitted into the available bandwidth without mutual interference. The slow rate and coherent demodulation also result in very good weak-signal performance making it suitable for DX work and comparable to Morse.

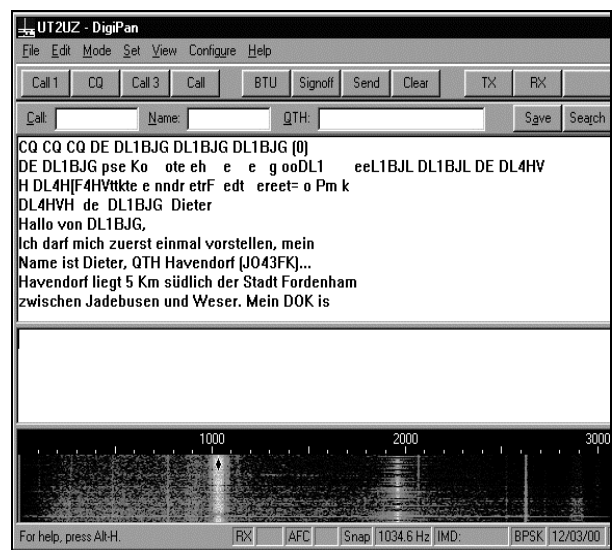


Bandwidth of 20wpm A1A Morse signal.

PSK31 requires good frequency stability of the transceivers which comes with stable temperature compensated and ovenised references and frequency synthesisers. It also

needs a lot of signal processing to demodulate – easily achieved with today’s PCs. These things were not readily available when earlier modes like RTTY and PACTOR were developed.

Typical stations use a PC connected to the radio running PSK 31 software. A number of different PSK31 programs are available for free, for Windows PC, Mac & Linux. The program from G3PLX, the inventor, works on Windows 95 PCs, minimum Pentium CPU & a true soundcard. Later versions like DigiPan and WinPSKse are suitable for Windows 98 and later machines with any Windows audio device.



DigiPan

These programs show a panoramic “waterfall” spectrograph display which enables the operator to see a number of signals arriving in the passband of the receiver and select which one to demodulate. Decoded text appears in a window on the screen. Replies can be typed in another window which are transmitted when the “send” button is clicked. There are a few other features to save typing, but basically that’s it!

PSK31 allocations exist in many bands from Top band to UHF and PSK31 is also ideal for LF use.

During the break a demonstration was set up; and QSOs of SP2CLW (Poland) were monitored. The electrical systems of the Marconi Club resisted our attempts to transmit owing to an EMC problem with the circuit breakers!

Trevor Hawkins, M5AKA, produced a CD-ROM for the occasion containing PSK31 software and other amateur related programs and information. Copies were distributed gratis to those present. Club Members who would like a copy but missed the opportunity should see him at the next meeting or contact:

Trevor Hawkins M5AKA
Tel: 0794 103 9832
E-Mail: m5aka@amsat.org

Many thanks to Trevor for the CDs and to Iain for his interesting presentation. Many who attended found it an unexpected treat and I've heard many positive comments since.

Report by Anthony M1FDE

The Canvey Rally.

Canvey was busier than usual this year and the Chelmsford Amateur Radio Society had a stand to sell the items that hadn't been snapped up at the Club junk sale a few weeks earlier. Funnily enough it's always the bulky, heavy items that get left over from junk sales! Colin G0TRM, Geoff G7KLV and Martyn G1EFL/M3VAM did an excellent job in selling many of these items to raise money for Club funds. Geoff even took to the aisles to sell a load of 10.7 MHz SSB crystal filters to the people streaming past, blocking the narrow gangway!

Nigel G6ZVV/M3ZVV was there manning the Raynet stand. Raynet do a great job in providing emergency communications in Essex. They are always looking for new members so if you're interested in joining contact Nigel on 0785 024 3459 or at

www.essexraynet.co.uk

Murray G6JYB and Clive 1EUC manned the Essex Repeater Group stand and signed up lots of new members. Clive took advantage of the Morse exams being held at the rally to sit his 5 WPM test so he should be appearing on the air soon with his new M0 callsign. They were selling oscilloscopes at £2 each; one was a Russian one and the other was from a well known firm in Oregon USA. The former showed signs of working but the latter was like the proverbial do-do. At least it didn't blow the mains fuse with a loud phut!

As usual the sales team was there at 8-30 sharp and were just ready for doors open at 10-30, with just a little time for some horse trading with the other traders. Just about anything you could want was available at the rally from Korean War Walkie Talkies and Naval Morse keys to 430 MHz antenna tuner units and electric fires to keep the shack warm. Refreshments at very reasonable prices were available. I can't remember the last time a cup of tea cost me just 20p, together with eats at the lowest prices ever.

At the close, pyrotechnics were provided by Fred G3ZJY from Lymington. He was demonstrating the use of a Morse code lamp signaller when he shorted out the battery pack. The result was a massive plume of smoke as the 4 amp hour battery discharged.

Was it all worth the effort? Yes, the Club made a net profit of £89-10. Not bad, eh?

Our thanks to Colin G0TRM for his usual impeccable masterminding of the whole operation

Report by Trevor M5AKA

Can You Help, Please?

Colin TRM would like to borrow operating and any other information on the following amateur equipments;-Trio-Kenwood Handheld Type 2600E, Alinco All Mode 2M Amp. Type ELH 230D, MFJ Multi-Reader Type 462B, MFJ World Band SW Receiver, Technical Associates Audio Processor Type PN 2, Dalta Mic-Vox Control unit. Contact him on 01245-223835.

Club Information.

We will shortly be producing a Club Information Sheet which will give details of the facilities offered by the Club and details of the Club nets for the particular benefit of our new Members. Please be patient!

Newsletter Editors.

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Deadline for the April Newsletter is 13th.March