

Chelmsford Amateur Radio Society.

NEWSLETTER No. 313

Callsign G0MWT

February 1992

NEXT MEETING - First Aid for Radio Operators

We welcome this month Peter Moule to represent the St. Johns Ambulance Association in the valuable service they provide, including first aid training.

We anticipate the subjects covered will include treatment in the event of electric shock; accidents in the workshop, cuts, burns, etc. and how to deal with injuries caused by falling.

The meeting will begin at 7.30pm in the Marconi College, Arbour Lane, Chelmsford.

DATES FOR YOUR DIARY

- 2 Feb. SOUTH ESSEX A.R.S. RALLY - Canvey Island.
- 4 Feb. CLUB MEETING - First Aid for Radio Operators.
- 9 Feb. CAMBRIDGE & DARC MOBILE RALLY & BOOT SALE.
- 23 Feb. EAST COAST AR & COMPUTER RALLY - Clacton.
- 3 Mar. CLUB MEETING - Marine Electronics - G8ADX.
- 7/8 Mar. LONDON AR SHOW - Picketts Lock, Edmonton.
- 14 Mar. RSGB NATIONAL VHF CONVENTION - Esher, Surrey.
- 7 Apr. CLUB MEETING - RTTY/Amtor Systems - G3EDM.

CONSTRUCTORS' COMPETITION

While we are on the subject of dates, may we remind you of Tuesday 2nd June, which is the occasion when members show their talents in construction.... How is your entry coming along?

COMMITTEE MEETING

The February Committee meeting will be held in the Telford Lodge at 7.30pm on Wednesday 12th February, you are welcome to join us.

FUTURE MEETINGS

Our Secretary, Gwyn, has tried without success to arrange a talk and demonstration on Satellite Weather Information. Although there are a number of companies in this market, non of them are willing to display their wares to our society.

If any member has knowledge and equipment for this interesting form of communication and is willing to provide a talk on the subject, please contact Gwyn or any member of the committee.

MONTH ON THE AIR

QRP - Richard, G4ICP.

On 40 metres, during the Christmas period I worked DL, G, GI, GM, I, SM and SP with a homebrew 1 watt, CW QRP, TX. and an end-fed 45' long wire aerial up at 30'.

The size of the TX was 1" x 1" with ZTX851 Xtal oscillator to a VN10 'PA' and ZTX751 as a keying transistor. Total components count was 11; 1 rfc, 3 resistors, 4 capacitors and the 3 transistors.

Transmit/Receive switching was achieved by unplugging and plugging from TX to RX, the RX was my trusty FT101Z. I used a 7025KHz Xtal with a 30pF variable C that achieved a 5KHz swing, so covering 7025-7030KHz.

Some say QRP is fun - the DL station who was 589 with me, was running 90W to a Ground Plane and gave me 579. I wonder what he thought when I told him I was running 1W out to a piece of 'wet string' ?

DX - Ela, G6HKM.

January got off to a good start, we are all relieved that the Troposphere has made a come back. We have had some outstanding conditions on 2M, 70cms and even activity on 23cms.

2M was very good on the 2nd with contacts well into Germany and Poland, my best dx contacts of the evening were SP6HEI (JO81HL) at a distance of 1114KMs and SP7REA (JO91QR) 1298KMs.

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There was a good opening to Scandinavia on the evening of the 10th, but somehow or other I managed to miss it, but the 11th was good again, starting with OZIANA followed by many QSO's well into Germany, as far as the JO6Z line on 2M, only four QSO's resulted on 70cms, but best DX was SP2DDV (JO93AC) 1197KMs, who was calling CQ on the key and getting no takers!

By the 13th the high pressure had moved south a bit and all the contacts were in the JN squares working into southern Germany, HB9, OE and F on 2M, the same on 70cms with the exception of OE, and contacts with F, DL and ON on 23cms. The evening of the 14th brought QSO's into HB9 again on both 2M and 70cms, but very few people about.

By the 15th housework was lagging a bit! but apart from the Committee Meeting during the evening I was on the bands all day, resulting in 102 QSO's; the tropo 'patch' was still southern Germany, HB9, LX, F, OE and this time OK as well, a number of contacts were made over the 1000KMs on both 2M and 70cms, OE was heard on 23cms but not strong enough to work. HB9QQ was very strong on 2M and whilst we had our evening meal we listened to Pierre on the TRIO 9130 in the dining room with no pre-amp and just the indoor halo, that's how good conditions were!

6M has not been forgotten, we have had several Sporadic E openings into Europe, the 3rd brought contacts with YV5ZZ and HH7PV, 6 new squares worked in the States during a good opening on the 6th, and the States again on the 8th and 11th. What with the activity on the other bands on the 11th I was running out of ears!

OK's are now active on 6M, SP's will be on air from 1st February, and it is hoped that EA will be on the band from some time in April.

MORE ABOUT THE BIRD

The meter is not in use at present, bookings for further use should be addressed to Roy, G3PMX, who will issue the unit, bearing in mind that priority must be given to any applications to the preparation of 1992 Field-Day and verification of the performance of our FT-747-DX Transceiver.

LAST MONTHS MEETING - John G8DET

1. SLIDES.

Your Chairman started off the evening by showing slides of the Golden Valley Contest Group (GW4ABR) as at 1972/3 using much of the station equipment built by G4BBR. This was transported to the top of a Welsh mountain and enabled the Group to win the VHF Managers Trophy. The 14 element 2m beam @ 48ft; 1,500ft asl with 400 watts put a good signal around.

Slides of CARS VHF Field Days from the late 70s featured Dick Brocks, Les Turner, Doreen Peachey and Bill Peachey to name a few.

The concluding slides showed G8DET working mobile from a 70ft narrow boat on the Grand Union Canal.

>>> More >>>

2. VIDEO.

SSR Radar provides many airports with a major aid to Air Traffic Control but under certain conditions can provide less than perfect displays. The Film showed typical screen displays and the improved version when using Mono-Pulse Radar.

3. VIDEO.

Paignton DF meeting held last year? was filmed and made available to show all what is involved in a championship?.

We saw G4ELZ/P setting up the first 'hidden' station in a dense rhododendron bush/tree. The start was from Windy Corner and much amusement was the way the wind blew maps about. The first stop was Ivybridge following Doreen & Bill Peachey. Holiday makers looked on in amusement as one team after another ran past carrying an array of different receivers with aerials and headphones. Paul Clark, Brian Bristow, Peter Lyle & wife and 74 year old Derek Newman were spotted.

The second 'hidden' station of G4HWP/P was 35ft (half way) up the side of a deep gorge balanced on an old tree. A difficult place to find. The special effects were interesting initially, but...

4. VIDEO.

Describing some of the applications for the Marconi 'Over-the-Horizon' Bi Static Radar recently installed at Jinderlee in Australia. The receiving aerial about which is 1.6km long and rigidly supported a few metres above the desert provides one part of the first installation. The film showed a realistic possible use of the radar to track boats and planes at some 2,000km distance attempting to land illegal cargoes at remote points on the extensive Australian coastline.

5. INTERLUDE.

Before the tea-break we had a sale/auction of the remaining components donated to the equipment fund.

No doubt that members will be pleased to learn that this sale raised a further £27 into 'The Box'.

6. SLIDES.

As a change, Richard, G4ICP showed shots of the LA 319, Radio Caroline - one of the first Pop Radio stations which used to transmit off the Essex Coast. Unfortunately the old trawler Ross Revenge is now under 20m of water near Felixstowe after dragging it's anchor in a bad storm. Details of the huge mast could be seen.

The large concrete & steel forts near Walton were shown - one was occupied by Ron Bates and called Sealand.

A less rusty boat was the Lazer 558 Pop Radio ship but it had a small mast. It operated at the low end of the medium wave band with 10kw which provided a good signal over much of the country.

A Marconi centre fed aerial shown at the Lotts Road Power Station provided an interesting finale. This was used by various BBC & Commercial undertakings to examine and provide local services to London.

7. VIDEO.

The final video was made locally in May 91 with an 'in-house' commentary being provided by the camera man, Arthur Butcher. We saw Dick Brocks providing the 'hidden' station near the Chelmsford Railway Station in bushes, assisted by the excellent dummy, Fred.

The start was from Danbury Sports & Social ground and all set off towards the town. Where to park the car provided more of a problem than the bearing!. Once near to the bushes in question much running around and signalling to put off the other competitors provided the interest. Andrew found the hidden station, Daphne felt it was nearby and continued searching - how could Andrew tell her without giving the game away?.

Doreen & Bill Peachey featured yet again. A well videoed DF Hunt at which Chelmsford district amateurs do well.

Thanks to all who provided good visual interest.

R.M.S. WATTS..RUBBISH! - Brian G3CVI

One hears frequently on the air and at meetings some people using the expression shown above. It is quite incorrect, although one perhaps understands what is intended.

The WATT is the unit of POWER and power is the energy capability of a device. If one unit of energy, a Joule, is transferred, given out, converted etc., per second, then the device has the POWER of one WATT.

Now let us perform what is called a DIMENSIONAL CHECK on the expression for POWER:-

Let the voltage (across an AC circuit) which yields the same effective energy as a constant voltage across it, be called, as we usually name it, the RMS or ROOT MEAN SQUARE VALUE...V

Likewise let the current which is required to achieve the energy effect be RMS or ROOT MEAN SQUARE VALUE...A

Both these expressions are the SQUARE ROOT OF THE MEAN SQUARE value and are square root terms such as \sqrt{x} or $x^{1/2}$ or X to the power of half.

When two terms which are square roots are multiplied together they yield a quantity which is to the power of $\frac{1}{2} + \frac{1}{2}$ or 1, which IS NOT A SQUARE ROOT term.

i.e. $V^{1/2} \times A^{1/2} = VA$ and not VA to power half.

This is the dimensional check to show that RMS volts x RMS amps gives voltamperes or watts and NOT WATTS RMS.

We can of course talk about peak power, average power and peak envelope power, all of which are in watts, not RMS watts!

COMMENTARY

The effect of the recession came close to home recently with the closure of Arrow Radio. We offer our condolences to all those who have been involved in the spin-off from this catastrophe.

THE CLUB 10 METRE NET

The 28.325MHz SSB net, which is held at 8.30pm on the Tuesday's between club meetings is still available for members to exchange news and views.

73 from Roy & Ela Martyr, G3PMX & G6HKM

Tel: (0245)360545

1,High Houses,
Mashbury Road,
Great Waltham,
Essex, CM3 1EL.

MEMBERS ADVERTISEMENTS

WANTED Practical Wireless for March 1979, to borrow or buy please. Andrew, G4KQE. Tel: (0378)83094.

FOR SALE As there was no response to last months Ad: the following are being offered as separates:-

- *ACORN BBC model-B Computer fitted with ROM/RAM expansion board, includes word processor WordWide Plus and WordEase, ROM utilities for Disk, Basic and system editing, RAM for printer buffer or Solidisk. \$100
- *ACORN 6502 Second Processor, for extended memory. \$65
- *CUMANA Dual Disk Drive, 40/80 Track, 2 side. \$100
- *MICROVITEC 14" RGB Colour Monitor (metal case). \$100
- *TRACKMASTER Adjustable Monitor Stand. \$5
- *ACORN model ALF03 Cassette Data Recorder. \$8
- *MARCONI model RB2 Tracker Ball (for BBC model-B). \$20
- *MFI Computer Desk (Teak), fitted with customised shelves for all the units and cluster of 13amp power sockets. \$10

*Accessories include many interesting programmes on disk and tape, books, magazines, etc. etc.

Major units in original boxes.....

Enquiries to Roy, G3PMX.