

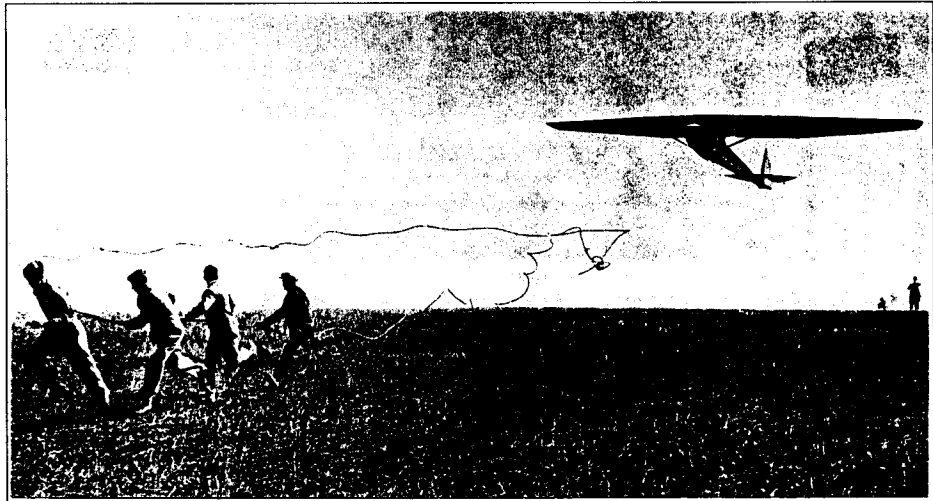


NEXT MEETING - Gliding

On Tuesday 3rd August we will welcome to the platform Brian Thwaites, G3CVI, otherwise known as our Hon: Treasurer, to describe in detail his "other hobby".

Brian has promised to mention RADIO just once during his talk but for the rest of the evening he will concentrate on mans irresistible desire to emulate the birds of the sky, with all the discipline, danger and thrills that gliding entails.

The meeting will open at 7.30pm in the Marconi College, Arbour Lane, Chelmsford and we look forward to another interesting event.



DATES FOR YOUR DIARY

- 3 Aug. CLUB MEETING - Gliding - Brian, G3CVI.
- 6 Aug. DF EVENT - Colchester.
- 15 Aug. SOUTHEND & D.A.R.S. RALLY - Rochford.
- 16 Aug. WATERS & STANTON OPEN EVENING
- 27 Aug. DF EVENT - Chelmsford.
- 5 Sep. DF EVENT (R.S.G.B.) Chelmsford / Colchester.
- 7 Sep. CLUB MEETING - Satellites - Pat Gowen, G3IOR.

WATERS & STANTON OPEN EVENING

As mentioned in the last Newsletter, C.A.R.S. has been offered a date for Monday 16th August, at 7.30pm for a two hour programme beginning at 8pm and we have been asked to estimate how many members would like to attend.

Ela, G6HKM started a list at the last Club Meeting, this must be completed at the August Meeting; you may also make your reservation by radio or ☎ (0245)360545.

INFORMATION

We have been advised that a local RAE course will be held again this year, commencing Tuesday 14th September, 6.30pm to 8.30pm (up to Exam in May 1994). Enrolment will be at the Moulsham Street site on the 7/8th September. Cost will be approximately £92.00, this includes £40 Exam fee and College Registration fee. For more information contact Ron Burg G8WSC, ☎ (0245)265611 Ext.5436.

MEMBERS NEWS

The Society extends a welcome to two new members this month they are Terry Wilson and Kenneth Treherne, both are SWL's. C.A.R.S. membership now stands at 80.

DF NEWS 1 - Dick, G3WHR

The national DF qualifying events have been taking place during the summer but so far its been a pretty lean time for the Chelmsford and Colchester teams. Andy Collett has qualified by winning last years National Final, and Mike Hawkins qualified at Torbay. I've just returned from the South London event and I'm still smarting from the fact that just as I was guiding Paul to our first transmitter - after a very long search, I led Brian Bristow into finding it ahead of Paul, and it was Brian's SECOND transmitter. Still, there's always our Qualifying event in September.

GØMWT - NFD 1993 - POST MORTEM

Report by Gwyn, G4FKH

Five members of the Field Day sub-committee, G3WHR, G0GJS, G8WQZ and G4FKH recently attended the QTH of Andrew, G4KQE to de-brief this years event. The decisions made at this meeting were taken after due thought and consideration. They will be binding upon the actions to be taken for the 1994 N.F.D.

RESOLUTIONS

- 1) The 160M aerial is to be changed from a long-wire to a half wave dipole which will run N/S, in a northerly direction from the Telomast. As a precaution against inter-coupling, it will be raised and lowered as needed.
- 2) The 40M dipole will be moved from its last position to the opposite side of the track and run NE/SW.
- 3) We will not put up 20/15/10M wire dipoles. This will allow time to test the 3 element beam (for use without an ATU!).

The above points were relatively easy to agree, however, we have two unresolved problems.

(a) The operators are not achieving uniform results. Apart from all the other variables, it seems obvious that training is required.

(b) The quality of logging has definitely taken a step for the worse. Dick, who did all the checking and tidying of the logs, had a very difficult task (next year this aspect must be shared out, probably one band per person). The main problem was indistinct writing, if our station is made more competitive by the execution of the above resolutions, the pressure on the loggers will increase with the possibility of errors creeping in. A number of suggestions were made; perhaps the operator should take more responsibility, e.g. checking the log entries. Another suggestion was to have more than one logger.

No further resolutions were made because we couldn't agree on everything. Some thought has to go into this and suggestions are welcome. Of course, more training in CW contests is a must!

Finally it was mentioned that whilst we like to do well, it is primarily a fun/social event for the club and we should strive to continue with this philosophy.

COMMITTEE MEETING

The next Committee meeting will be held in the Telford Lodge at 7.45pm on Wednesday 11th August, you are welcome to join us.

LAST MONTHS MEETING - Andrew, G4KQE

Louis Varney, G5RV was welcomed back to our club by the Chairman, and coincidentally, the August issue of "Practical Wireless" contains a full page article on Louis and his work. The talk was about his observations on the performance of coaxial cable.

Louis related his first installation of coax cable was actually in the grounds of the Marconi College in the 1930's using copper tube of 3" outside diameter. He said that coax does not always work as the book says it should, and that some aspects were not fully investigated, in particular, what happens with RF current on the outer surface of the outer braid.

A graph showed the resistance and reactance of a dipole either side of resonance. At resonance, the resistance is about 75Ω and the reactance is nil, and a diagram showed how current flows down the outer surface of coax as well as the inner surface.

Louis set out to measure this current and started off by making a device to measure the current in each arm of a dipole using two thermal ammeters in series with each connection at the feed point. He found there was an unequal flow of current in the two halves of the dipole, the half connected to the outer of the coax always showed less current flow. Louis deduced from this that the difference in current must be due to that flowing down the outer of the coax, and set out to measure it, and establish how it could be prevented. To measure the relative current he made a toroidal diode detector that passes over the cable, and to calibrate this he used the outer of a short piece of coaxial cable connected in series with a transmitter, a thermal ammeter and a dummy load.

Tests were carried out at 14MHz, using a dipole and 94 feet of coaxial cable, and the results plotted on a graph of relative current against distance along coax from feed point. It was found that when the cable was at 60° to the horizontal plane of the dipole, far more current flowed in the outer, than if the cable dropped vertically from the feed point, and the flow of current in the outer was almost eliminated by using a ferromagnetic choke balun.

If current is allowed to flow in the outer of the cable, the polar diagram of the aerial is affected, as the near field radiation from the feeder will mix with the radiation from the aerial itself. It was therefore considered best if the cable to an aerial could drop vertically from the feed and even better if it could then go underground to the transmitter. Louis' next step was to see what happens on a half size "G5RV" aerial. It was shown that there was worse current flow on the outer of coax when using a 1:1 voltage balun, than no balun at all, but the current almost disappeared when using a ferromagnetic current balun.

He then showed us other testing aids he had made, including a coaxial mis-match, which enabled him to deliberately mis-terminate cable in a reactive L or C load to simulate effects at the feed point of an aerial.

After tea Louis showed how to check attenuation in coax feeders using just a Transmitter and SWR Meter. Using the clubs FT-747 and Bird Model 43, Louis connected 94' of UR43 and shorted the far end. With only a few watts at 14MHz, Louis determined the SWR and referred to a SWR/Loss chart for the result of approx: 1dB, about what was expected. This method of checking loss was published in RadComm in 1986.

Louis rounded off the evening by displaying his home brew Hartley oscillator transmitter for 40m that he made in 1927 and still works!

A vote of thanks was given by Harry, G5HF. Louis said he would be pleased to return again one day for another talk.

DF NEWS 2 - Dick, G3WHR

The second Chelmsford event - Friday 28th May.

This time it was Peter Larbalestier's turn to provide the hidden station. He selected Crockleford wood NE of Colchester for G4TEB/P. At the start we were expecting the bearing to be towards Halstead, where Peter lives, so a bearing towards Colchester caused us to think a bit. I chose to go North of the A12 to try and obtain a larger angle of intercept between my bearings, but only managed to get as far as Feering before the second transmission. My cross indicated a site on the far side of Colchester so I used the by-pass to Ardleigh where a third bearing confirmed Crockleford.

Once in the wood I found an aerial running along the bank of a stream which I followed to each end - a dummy. A further search of the wood near the stream proved unproductive but an increase in signal strength at one point led me uphill to where I found Peter. With nobody else nearby I was signed in and then back tracked to obtain some photographs of other teams as they either waded or jumped across the stream.

Results	1 Dick Brocks	8.29	5 Roy Emeny	8.45
	2 Ian Butson	8.35	6 Peter Graves	8.47
	3 Mike Hawkins	8.36	7 Richard Witney	8.50
	4 Philip Cunningham	8.44		

ON THE VINTAGE WIRELESS MUSEUM TRAIL - Geoff, G7KLV

A week or so before Harry, G5HF's note appeared in the June Newsletter I had been down to Harwich intending to visit the National Vintage Wireless Museum which we had seen featured on the Look East programme last year. The High Lighthouse was deserted and local enquiries, including the 'Bobby on the beat', all came to nought. Following up an entry in the local tourist leaflet, which gave the telephone number of the curator, I eventually received the information which Harry gave in the newsletter. However, all was not lost on that occasion as we found a very good pub nearby which, in itself, warrants another visit later in the year when the museum is open.

Another museum well worth a visit is the Amberley Chalk Pits museum near Arundel in West Sussex (an easy journey by the M25 and M23). This is a working industrial museum devoted to local crafts and industry, transport (road and rail) and electricity generation. It also has a very comprehensive display of vintage radios including allied and enemy wartime equipment. The museum also houses the special event station GB2CPM but unfortunately this was not working when we were there. In spite of this it's a very good day out for young and old alike.

Nearer home and following up a lead from an old copy of Essex Countryside we visited the Prittlewell Priory museum near Southend. Whilst this is mainly concerned with the old priory itself, Priory Park is well worth a visit and is a centre for bowls. On the occasion of our visit there were about ten matches in progress simultaneously.

For me the main attraction was a superb permanent display of radio equipment in the museum. It is entirely fitting that the collection features the products of E.K.Cole who had their factory at Prittlewell.

There is a good selection of radios, televisions, record players and tape recorders from a wide range of manufacturers. There are also a number of items of wartime and amateur equipment.

Ekco, since absorbed by Pye and Philips, were pioneers in the entertainment market and as early as 1931 had installed four 1600 ton presses for plastic cabinet production.

The radio that appealed to me was the Ekco C389, priced at twelve and a half guineas in 1938. It was a L, M and S wave receiver with Magic Eye and ten push button controls. Tuning was effected by means of an electric motor coupled to the variable tuning condenser through a gear chain and a series of pre-settable switches.

For anyone interested in vintage radios a visit to Prittlewell is highly recommended and there are other attractions for all the family, young or not so young.

DF NEWS 3 - Dick, G3WHR

The third Chelmsford event - Friday 25th June.

When Mike Hawkins is down for the hidden station you know it won't be easy. Our start bearings went through Wakes Coln but my second bearing from Feering was very poor causing me to overshoot the site despite seeing some parked DF cars just north of the station. On my return I followed the faint track through a field to a footpath which crosses the railway. On the far side there was an overgrown bank and a thick hedge, which was being thoroughly investigated by DF hunters. I joined in the bushbeating but had no success, then I became aware that there were fewer teams searching. The signal seemed strongest at the top of a steep slope but there was no way down at that point. Further along the bank I discovered 'the gap' and slid down to a lower level where I found Mike. Returning to the gap I was in time to see Peter come along at the right level then disappear UP the slide. It was several minutes before he returned - just in time.

Results	1 Philip Cunningham	8.40	4 Dick Brocks	8.46
	2 Andrew Mead	8.40½	5 Ian Butson	8.51
	3 Roy Emeny	8.41	6 Peter Larbalestier	8.58

Local DF events in August,

Colchester on the 6th and Chelmsford on the 27th.

Deadline for September copy, Friday 27th August.

73 from Roy & Ela Martyr, G3PMX & G6HKM

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