HORSHAM AMATEUR RADIO CLUB

HARCNEWS

Coming Shortly

Feb 7th Club Evening Sussex Repeaters Update
by Mike Senior G4EFO

Feb 24th Club Event Fox Hunt

Mar 7th Club Evening Junk Sale

Mar 21st Social Evening Rising Sun Nutbourne

February 2002

Diary 2002

Jan 3	Club Night RSGB Video Evening	G4LRP
Jan 10	Committee Meeting QTH of G7EYL	
Jan 13	Club Event AFS CW contest	
Jan 17	Social Evening The Foresters St Leonards Road Horsham	
Jan 19	Club Event AFS SSB contest	
Feb 7	Club Night Sussex Repeater Update	G4FQR
Feb 14	Committee Meeting QTH of	
Feb 24	Club Event 2m Foxhunt	
Mar 7	Club Night Junk Sale	
Mar14	Committee Meeting QTH of G3ZBU	
Mar 21	Social Evening Rising Sun Nutbourne	
Apr 4	Club Night Homebrew	G7EYL
Apr 11	Committee Meeting QTH of ????	
May 2	Club Night T.B.A.	G7DFV
May 9	Committee Meeting QTH of ????	
May 16	Social Evening The Fountain Ashurst	
Jun 1/2	Club Event HF (CW) NFD	
Jun 6	Club Night T.B.A.	G4TMC
Jun 13	Committee Meeting QTH ?????	
Jun 16	Club Event PW QRP Contest	
Jun 21	Evening Fox Hunt	
Jul 4	Club Night T.B.A.	G4JHI
Jul 13	Committee Meeting QTH of ????	
Jul 18	Social Evening The Victory Inn Staplefield	
Aug 1	Club Night T.B.A.	2E0AVH
Aug 8	Committee Meeting QTH of ????	
Sep 5	Club Night HARC CARC Challenge Night	G7EYL
Sep 7/8	Club Event SSB Field Day	
Sep 12	Committee Meeting QTH of ????	
Sep 19	Social Evening The Scarlet Arms Walliswood	
Oct 3	Club Night Junk Sale	
Oct 10	Committee Meeting QTH of ?????	
Nov 7	Club Night T.B.A.	G4FQR
Nov 9	Club Event Top Band Club Calls Contest	
Nov 14	Committee Meeting QTH of ????	
Nov 21	Social Evening The Fox Bucks Green	
Dec 6	Club Night A.G.M.	G3ZBU

Callsigns in right hand column - coffee

If there were a quarter wave balun (ARRL handbook fig19.12) at the aerial end of the coax then nearly all of the reflected power would return down the inside of the coax and be re-reflected at the TX.

Some 75% of the original 82W (62W) theoretically could be transmitted. If 100ft of RG58 (0.2"dia) coax is used then at 14.1Mhz only 71W would be available for transmission, the loop aerial would still accept 34W leaving only 37W to be reflected.

With a quarter wave balun 53W could be transmitted. All tuned aerials with the maximum current point of the aerial below a quarter wave from the ground, or metallic objects, the input impedance of the aerial will be reduced.

Alister's Archives: Feb 2002 by Alister Watt

Highlight of the month is to be found in the current issue of Practical Wireless, in which Helen 2E0AVH has had her first article published. This means that Helen is now able to write articles for HARCNews!

The other excitement we encountered was the two AFS contests. I have had quite a few logs posted/handed and e-mailed to me (please note my new addresses: G3ZBU@hotmail.com and alisterwatt@lineone.net), but there is still time for any more. Two of our Novices had a taste of both contests; Richard 2E0AVG managed 50 QSOs in the SSB section. Well done, Richard. I am sure he will be excited at seeing his callsign printed in the results section of RadCom later this year.

We had a small problem with the long wire aerial during the CW leg possibly due to a broken wire. The remote ATU tuned

the remaining wire up perfectly but there didn't seem to be enough copper in the air to radiate properly. For the SSB leg, G4FQR helped me put up a 33 foot mast made up from spare bits of a hang glider with 3 poles held together with gaffer tape. This mast supported an inverted-V dipole over the roof of the house. It worked perfectly and I was able to hold a frequency without being barged off by louder stations.

Moral of the tale is that automatic aerial tuning units are wonderful devices but can lead one down the garden path if you don'tkeep you eye on it's matching parameters.

On the downside, the aerial over the roof caused some QRM to my computer keyboard so the computer logging programme had to be abandoned. I remember that when I operated at university (G3KMI) we used a mechanical teletype KSR33 because it was completely immune to RF! (We used a 180 foot high inverted-'V' on Top Band.)

Finally, the Foundation licence course is likely to be starting soon, once the paperwork comes through. In a nutshell, we will be able to hold the Morse Assessment as well as the 10-hour Foundation Course. I shall ask the Newsletter Editor to post a message on the HARC.org.uk webpage as and when we are able to run.

Fox Hunt

Date is Sunday 24 February. First transmission will be at 10:30 Local. Frequency 144.725 FM. Transmissions will be every 10 Mins for 2 Mins.Last transmission at 12.30. Starting point is Mannings Heath recreation ground. NGR TQ204286. Map required is Landranger 187. Dorking, Reigate and Crawley. Callsign, G4HRS/P

Magazine Review by Helen Watt 2E0AVH

Greenweld Christmas Special 2001 - www.greenweld.co.uk

Dad (G3ZBU) asked me to write an article for H.A.R.C. about this free magazine

I recommend this mag for all members of H.A.R.C., it has something to interest everyone! It is filled with gifts and gadgets, from stocking fillers such as CD storage cases to model ships and even a telescope.

There is a NI-MH & Ni-Cad battery charger, and a voltage detector, and even a small selection of keyboards. One thing in particular that I should point out is a collection of kites with a five foot wingspan, ideal for holding up aerials They come in different interesting shapes such as a tri-plane, a bi-plane and a shark.

Something that is hard to find nowadays is a good old fashioned balsa wood model plane, but there is one here to make and fly for less than £315. They have a great selection of interesting books about different topics such as radio controlled scale models and basic benchwork and there is a very interesting book that dad is thinking of getting called "sorry, Wrong Number - The Abuse Of Measurement" which looks really interesting and I think I shall have to 'borrow' it.

If you are looking to read up on modelling - this is perfect! There are plenty of computing books too - 'Web Site Contruction Simplified' for £36.99 and a series of Microsoft products explained (MSWorks 2000, IE5, MS Office, Win 2000) and a couple of project books including Leonardo's Machines which includes four paper models to cut out and glue together. There are lots of tools and even some soldering irons going for £12.99 and stands for under a fiver.

Feeder Losses by Ron Polley G3PYC

Many years ago I was asked if I could find the problem with a fellow amateurs 2m aerial. He had a 60ft telescopic tower which was located some 40ft from the shack.

On TX he was getting a poor VSWR. The TX was connected to app 100ft of RG8 coax, which was connected to a weatherproofed in line connector and a short swinging loop of coax to the rotating Yagi. The TX was checked and found to be giving 65W output into a dummy load.

The RG8 coax was then checked using a power meter connected at the aerial end into a dummy load and the power found to be only 40W available. A check on the RG8 coax attenuation for 100ft length showed this to be as per book.

The coax to the aerial was then checked and found to be faulty. This was replaced with new and a good VSWR obtained. The above illustrates that with everything matched you can loose significant power from TX to aerial and this applies to the received signal as well. A 70cm aerial fed in a similar manner, with 65W input you would loose 48W in the coax leaving 17W into the aerial.

A 100W of RF at the transmit ters 50Ω coax output delivers 1.41A at 71V. At 14.1Mhz 100W feeding a tuned aerial say at 60ft with 100ft RG8 (0.4"dia) then 82W should be available at the aerial terminals. If a tuned Delta or Quad Loop, which has impedance of 150Ω, were connected directly to the coax you would expect a 3 to 1 VSWR. (150/50 = 3).

There would be 71V available across the 150Ω, so the loop would accept 71/150 Amps, or 34W. The remaining power, 82-34 = 48W would be reflected. With coax feed a large proportion of the 48W would return down the outside of the coax, some being radiated along the way.